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THE FLOODING OF THE SAHARA.

DONALD MACKENZIE.
THE FLOODING OF THE SAHARA:
AN ACCOUNT OF THE PROPOSED PLAN
FOR OPENING CENTRAL AFRICA TO COMMERCE AND CIVILIZATION FROM THE NORTH-WEST COAST,
WITH A DESCRIPTION OF SOUDAN AND WESTERN SAHARA,
AND NOTES ON ANCIENT MANUSCRIPTS, &c.

BY DONALD MACKENZIE.

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1877.

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LONDON:
GILBERT AND RIVINGTON, PRINTERS,
ST. JOHN'S SQUARE.
TO THE PRESIDENTS AND MEMBERS
OF THE CHAMBERS OF COMMERCE
OF GREAT BRITAIN.

Gentlemen,

The work that I have the honour to place before you directs attention to Soudan, the most important portion of Central Africa, and the desirability and feasibility of opening it up to Commerce and Civilization from the north-west coast. I feel that this is a subject in which your influential associations would be specially interested, since its accomplishment would extend trade and improve our manufacturing industry. Africa two thousand years ago boasted of Egypt and Carthage—States which held the first rank in civilization and commercial enterprise. These States and their successors, the Romans, have long since passed
away, leaving scarcely any trace of their existence. During fifteen hundred years Africa seems to have been almost forgotten by the civilized nations of Europe, for it was not until the fifteenth century, the golden age of discovery, that its general outline was ascertained. But its interior remained a blank until the middle of the present Century; it has now been traversed in various directions both north and south of the equator, immense lakes and mountains have been discovered, great rivers have been traced to their sources, and the climate of the north and south and the interior has been found to be well suited for the habitation of man. Africa is three times the size of Europe, with a population of nearly two hundred millions, and natural resources equal to those of any other part of the earth. The importance of holding commercial intercourse with its interior has been acknowledged in all ages. To what extent the ancients
succeeded in this enterprise remains a mystery. Europeans strove for more than three centuries to open communication with Central Africa from the west coast; but its deadly climate, hostile tribes, swamps and high mountain ranges frustrated every attempt. Africa still remains unopened and uncivilized; its vast resources lost to the commercial world; its inhabitants victims to the slave-trade, and to every kind of tyranny and vice that follows in the wake of ignorance and superstition. It would be unreasonable to expect improvement in the condition of these races until inland communication is established. If the rivers of Africa were navigable from the sea, its interior would be practically opened to Commerce. With rivers of great magnitude, it is remarkable that not one of them can be used as a highway to the interior on account of the numerous obstructions in their courses. The Nile has six cataracts and the Congo sixty-
two cataracts and rapids. If half the amount of energy expended in endeavouring to penetrate Central Africa from the west coast had been directed from the north at a point near our own shores, and by roads through a healthy country, which have been used for commerce for thousands of years, the interior would have been opened to Europeans, and the slave-trade with all its horrors would have been a thing of the past.

The natives of Central Africa living south of the equator are mostly Pagans, without any settled form of government; but Soudan, a country situated to the north of the equator, has a population of about thirty-eight millions of the most intelligent and energetic of all the African races. They have successively been brought under the influence of Carthaginian, Roman, Egyptian, and Mohammedan civilization. They have formed themselves into independent States, and possess numerous walled
towns of commercial importance. They have established laws and education, and stamped out many of the worst forms of pagan superstition. They cultivate the soil and carry on several branches of manufacture with remarkable success.

A description of Soudan is given in this book, and it is to this part of Africa that I would direct special attention, as well as to the proposed plan for opening it to Commerce and Civilization. The people of Soudan receive their supply of European merchandise across the Sahara from the ports of Morocco, Algeria, Tunis, and Tripoli,—a system of communication with the outer world which has existed for thousands of years. Caravans proceeding by any of these routes can only make one journey a year, traversing about two thousand miles of mountainous and difficult country before the nearest market of Soudan is reached. These paths, formerly used by the merchants of anti-
quity, now serve the Arab caravans. I have laid down the principal routes in the accompanying Map. Notwithstanding all these difficulties, the annual value of the trade between the northern ports and Soudan amounts to about 4,000,000£. An easier mode of transit would evidently lead to a large development of this trade. I have fully explained in this book the project for opening direct intercourse with Soudan from Cape Juby, north-west coast—a point distant only about 1500 miles from England. The advantage of the proposed road over the present routes will at once be seen by a reference to the Map. The distance from Cape Juby to Timbuctoo on the Upper Niger is about 800 miles of almost level country—thus being 1200 miles shorter than the present routes. On the line proposed by me in this book there are no less than forty-two stations with plenty of water. Caravans could make three journeys a year by it with greater ease than one by the
present roads. Therefore, without any outlay whatever for roads, an annual trade of 12,000,000l. would soon be established. To attain this object, all that is necessary is to form a commercial station at Port St. Bartholomew, Cape Juby, where the climate is equal to that of Madeira and Canary; obtain the protection of the Berber chiefs of Western Sahara, under whose protection the present trade is carried on; and place agents in the principal towns on the road to Timbuctoo. The road to Central Africa would then be practically opened to commerce through a healthy country and from a point within nine days' sail of our own shores. A junction once established with the Upper Niger, the African slave-trade would soon disappear. If the readmission of the Atlantic Ocean into the depression of El Juf in the Western Sahara be accomplished, there would be direct navigation from Europe to within a short distance of Timbuctoo. I have
no doubt of the ultimate achievement of this project. Surveys will have to be taken and its final accomplishment will rest with Governments and commercial communities. From many valuable communications approving of the general plans, permit me to call your attention to the following letter from the Right Hon. Sir Bartle Frere, Bart., G.C.B.:

WIMBLEDON, August 5th, 1875.

DEAR SIR,—I must thank you for your letter of the 3rd. I need not tell you that I take a sincere interest in your undertaking, and believe it ought to be vigorously supported by Government. I very much regret my inability to be a member of your deputation to-day, but I have so much to do connected with India and Eastern Africa that I am obliged to decline taking up any fresh work.

Believe me, dear Sir,
Yours very faithfully,
H. B. E. FRERE.

At the Orientalists' Congress lately held at Marseilles, M. Lesseps spoke on the project of flooding the Sahara as a plan which he
of Great Britain.

considers might easily be realized. He thinks it would improve rather than hurt the climate of Europe, while it would fertilize Northern Africa.

In Appendix I., page 251, will be found an interesting report by her Majesty's Consul at Mogador, confirming to a great extent the statements that have been made in favour of the proposed plan. To make a successful exploration of Western Sahara, it is necessary first to open trade with the tribes, to gain their confidence, and secure their indispensable co-operation in the undertaking. A moderate sum of money will enable me to carry out these preliminaries. Were this amount placed at my disposal, I would proceed to Cape Juby next spring and establish a station at Port St. Bartholomew. From this point I will endeavour to make a journey by the Wadan route to Timbuctoo, and invite the chiefs of Western Sahara to enter into a treaty for opening up
trade with Soudan, and for its protection, and also for the abolition of the slave-trade between Western Soudan and Morocco. I shall also make an exploration of the basin of El Juf, and the channel which connected it with the Atlantic Ocean.

I will now leave this important subject with confidence in your hands.

I have the honour to remain,

Gentlemen,

Your most obedient Servant,

Donald Mackenzie.

London, Nov. 10, 1877.
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NOTE.
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Dr. Barth's Travels and Discoveries in North and Central Africa; Dr. Schweinfurth's Heart of Africa; Major Vincent's Travels in Western Sahara; M. Caillie, Travels in Western Sahara; M. de Brisson; Captain James Riley; Nachtigal; Gerhard Rehlf's; Richardson; Mungo Park; Bou El Mogdad; Denham and Clapperton; and L. Panet.
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THE FLOODING OF THE SAHARA.

SOUDAN AND WESTERN SAHARA.

CHAPTER I.


The great continent of Africa has long been known to the civilized parts of the earth, and once formed an important part of its political and social system. On its northern shores flourished Egypt, the cradle of science, and Carthage, once the mistress of the commerce of the world. All these civilizing powers have long since passed away, and the influence that might have operated with beneficial effect on the interior of this vast continent vanished with them. Africa is still in
the lowest grade of social culture as regards civilization, industry, arts and commerce.

Whatever knowledge the ancients possessed of the geographical character of Africa has passed with the wreck of empires; the few fragments that have been handed down to us seem to be vague and generally unsatisfactory. This blank in African geography was filled up by the imagination of poets, who represented Central Africa as a vast burning plain, in which no green thing grew, and into which no living being could penetrate. This hypothesis of an uninhabitable torrid zone was generally received until enterprising nations and energetic travellers unravelled the African mystery. The African continent of the nineteenth century is a land of stupendous mountains, great inland seas, mighty rivers, immense forests, waterfalls, picturesque scenery, of unsurpassed grandeur and magnificence, with a varied climate equal to any other portion of the earth's surface.

Africa is also found to be inhabited by millions of human beings, whose ignorance and innocence has been abused by civilized
The Area of Africa.

nations to an extent unknown in the history of any people. The natives have been hunted like animals, and driven from their homes and families to work in the plantations of distant lands; others are sent over deserts to be sold to Mohammedan rulers. Such has been the cruel lot of the Africans for centuries.

Africa embraces nearly one-fourth of the entire land-area of the globe; it forms a compact island, the Suez Canal having severed it from Asia. It is bounded on the north by the Mediterranean Sea, on the east by the Suez Canal, Red Sea, and Indian Ocean, on the south by the Southern Ocean, and on the west by the Atlantic Ocean. It extends from latitude 37° 20’ north, at Cape Ras el Abiad in Tunis, to latitude 34° 49’ south, at Cape Agulhas; and from latitude 11° 50’ east, at Cape Guardafui, to latitude 14° 43’ west, at Cape Verde. Its extreme length from north to south is about 5000 miles, and its breadth from east to west is about 4600 miles. The area is estimated at 11,415,894 square miles. Africa is divided near its
centre by the equator, and the greater part of it lies within the northern hemisphere.

Africa presents the smallest development of coast-line of all the continents of the world. Its coast-line, the length of which is estimated at 18,000 miles, is very regular and unbroken, having few bays and gulfs. The chief indentation is formed by the Gulf of Guinea on the west coast, the Gulfs of Sidra and Cabes on the north coast, and the Gulf of Suez and Delagoa Bay on the eastern coast.

Although Africa possesses several rivers of great magnitude, yet none of them offer any facilities for navigation; being either shallow at their outlets, or unhealthy, or full of cataracts and rapids. These obstructions and the unbroken coast-line have isolated Africa from the rest of the world.

The Mountain system of Africa presents some singularities unobserved in any other quarter of the globe; it has no great parallel chains of mountains crossing its surface. An elevated girdle of highland, with few interruptions, except on the west coast, extends around the edge of the continent—the
interior being generally occupied by tablelands and plains.

The Atlas mountains line nearly the whole of the north coast; they consist of a series of small chains, rising one behind another, with a breadth varying from 60 to 140 miles, until they near the Atlantic, when the breadth reaches 350 miles. Many of the peaks of the Atlas range have a very imposing appearance and are covered with perpetual snow. Some of them rise to a height of about 12,000 feet. The northern shores from Tunis to the delta of the Nile are low. From the Nile delta a series of terrace-formed rocky hills stretches south along the shores of the Red Sea to the Alpine region of Abyssinia, in which Abba Jared is 15,000 feet above the sea. From Abyssinia to the equator the coast is high, rising to 6500 feet on the north shore of the Somauli country. In East Equatorial Africa the land rises from the coast range to the sources of the Nile, where Lake Victoria Nyanza is 3740 feet, and south-west of it the mountains are 6000 to 8000 feet above the sea. South of the equator the peaks of
Kenia and Kilimandgaro are said to be 18,000 feet, and snow-clad. Between the parallels of 15° and 16° south, the hills along the east shore of Lake Shirwa are about 2000 feet high. The coast again continues high to the south, but, where disrupted by the Zambesi River, it is only 600 to 800 feet; south of the Zambesi, the Drakenberg mountains in Cape Colony rise to 9000 feet; the high ridge is continued west through the centre of the Cape Colony to the Sneeuw Bergen and Table mountain at the south-west of the continent, and is 3582 feet high. The mountain range stretches northward between the coast and the Kalahari desert; and in Damara Land, Omatako mountains rise to 8000 feet. The border-land continues high to the Bight of Biafra, where the Camaroon mountains are 13,000 feet above the sea. The Kong mountains stretch from the delta of the Niger to the Senegal, rising to a height of about 3000 feet. The country between the Senegal and Morocco is almost level.

The plateaux and plains are the most remarkable features in African geography.
In the north, the general name of Sahara is given to a so-called desert country stretching from the shores of the Atlantic in the west to the valley of the Nile in the east, and from Soudan in the south to the spurs of the Atlas mountains in the north; in the centre and the east it is traversed by hills 1000 to 1400 feet above the sea, with green and fertile oases interspersed. South of Tripoli the surface varies from 100 feet to a plateau of 4000 to 5000 feet south-west of Murzuk. Similar heights interspersed with valleys extend south to the country of Air or Asben. The table-land on which Agades stands is 2000 feet, but further south in the highland of Soudan it rises to about 10,000 feet above sea-level.

There are remarkable depressions in the Sahara, supposed to have been covered by the sea at a comparatively modern epoch. One occupies a large tract of country to the south-west of the Gulf of Cabes; it is said to be about 150 feet below the level of the Mediterranean. Another vast depression, called El Juf or the Great Hollow,
considered to be larger in extent, occupies a
great part of the north-western portion of
the desert, stretching from the neighbourhood
of Cape Juby in a south-easterly direction
to within about 100 miles of Timbuctoo. It
is said to be considerably below the level of
the sea. I will give more details of the depres-
sion of El Juf in another part of this book.

The temperature of the Sahara varies con-
siderably; in some places the heat is very
great, while in other parts the cold is so
intense that ice is formed. Generally the
climate is healthy, and well-suited to the
European constitution.

The interior of South Africa has the form
of an elevated trough. The outer mountainous
border encloses an immense region of un-
dulating and fertile table-land, with high and
well-defined water-sheds, through which flow
the Zambesi and the Upper Congo. On the
south-west of this region the Kalahari desert,
not quite destitute of vegetation, rises to a
height of 3600 feet, sloping towards the
Orange River, where it is 2000 feet. The
barren and desolate region called Namaqua
Land is situated on the west of the Kalahari
Immensse Lakes.

desert. Great Karro, on the south of the Orange River, is only an arid plain. South of this country and north of the Cape mountains the table-land is 600 feet high, partly under cultivation.

Until the recent discoveries in Central Africa, it was believed that this continent was destitute of lakes or inland seas; but now it is known that there are several of large dimensions—some equal in size to the large lakes of North America. These are Victoria Nyanza and Albert Nyanza, each estimated to be about 230 miles in length and breadth; Lake Tanganyika, further south, is about 350 miles long, and 20 to 60 miles wide. In the Zambesi basin, the principal lakes are Nyassa, Shirwa and N'gami; the former is 250 miles long and 26 miles wide, and 1300 feet above the level of the sea. Lake Chad in the Soudan is 800 feet above the level of the sea; it is about 200 miles long and 140 miles wide. The water of this lake is fresh but shallow, and abounds in fish and wild fowls. The Lakes Bangwelo, Moero, Ulenge and Lincoln are connected by the Lualaba River and its tributaries. Lake
Dembea is situated on the table-land of Abyssinia, 6000 feet above the level of the sea. The Blue Nile flows through it; its length is 60 miles and breadth 25 miles.

There are salt-water lakes in the north of Africa. The most remarkable one is Assal, in the south-east of Abyssinia; it is said to be 750 feet below the level of the sea.

The lakes of Africa cover an area of about 175,300 square miles, and are all of fresh water with the exception of one or two small ones that are salt. If these great inland lakes could be navigated direct from the sea the vast continent of Africa would be practically opened to the commerce of the world; but there are very wide tracts of elevated country, separating them from the ocean, which bar communication. It is true that some of these lakes are connected with the large rivers of Africa; but all these rivers being impeded by cataracts as well as being unhealthy, navigation is impracticable.

Africa possesses rivers of great magnitude; the Nile, the king of rivers, is the largest in Africa, and the longest in the world.
The principal stream passes from Lake Victoria Nyanza to the Albert Nyanza Lake, whence it issues under the name of the White Nile. Its principal tributary is the Blue Nile, which rises in Lake Dembea, Abyssinia, and joins the White Nile at Kartoom. Its next and last tributary, the Atbara or Tacazza, flows from the table-land of Abyssinia, and joins the Nile at Berber. Beyond this it flows a majestic stream without an affluent, passing through an almost rainless district for about 1500 miles, and falls into the Mediterranean to the east of Alexandria by several channels which form a delta. The annual inundation of the Nile has been the wonder of all ages during more than 4000 years; it has regularly risen to within a few inches of the same height and within a few hours of the same time, commencing to rise in April, and subsiding in October. It brings down fresh soil and decayed vegetable matter from the mountains of Abyssinia, and so renders the Nile valley of great fertility, for which it has always been celebrated. The Nile has several cataracts.

The Niger is one of the greatest rivers of
Western Africa; the magnitude of its volume and the length of its course is almost equal to the Nile. It rises in the Kong mountains, 1600 feet above the sea, and flows in a north-easterly direction through Bambarra and Massina. Passing Timbuctoo, it makes a bend and flows south-east for nearly 2000 miles, and falls into the Gulf of Guinea, which it enters by a wide delta. Its principal tributary is the Chadda, which rivals the main stream in volume at the confluence.

Until the splendid geographical achievement of Mr. Stanley, as reported in the Daily Telegraph, Sept. 17th, 1877, very little was known of the course or source of the Congo. It now appears that the Lualaba is simply a continuation of the magnificent River Congo, and it connects the interior lakes of Bangwelo and Moero, together with the Luapalu and Webb's Lualaba, in one continuous and winding watercourse of about 6000 miles in extent, with its source to the east of Nyassa. In its course to the west coast, it makes a sweep in a northerly direction as far as 2° north latitude; it then makes
The Great River Congo.

a bend to the north-west, then west, then south-west, with a breadth of from two to ten miles, choked with islands with a series of great cataracts, to the south and north of the equator. During its course the river changes its name many times, but becomes known as it approaches the Atlantic as the Icutu-ya-Congo. As the river runs through the great basin which lies between longitudes east 17° and 26° it has an uninterrupted course of over 1400 miles, with splendid affluents, especially on the southern side. Then cleaving the broad belt of mountains between the great basin and the ocean, it descends by about thirty falls and furious rapids into the Atlantic south of Loango.

The Orange River flows west through the country of the Hottentots and Cape Colony, and falls into the Atlantic after a course of about 1000 miles. It has several tributaries.

The Senegal takes its rise in Bambarra, and reaches the sea at Senegambia.

The most important rivers falling in the Indian Ocean are the Zambesi and the Limpopo.
The Zambesi has its origin somewhere in the country of Londa, where it is called the Luambye. It flows south through the Barotse valley, and shortly after turning to the east forms the magnificent Victoria falls. Near its delta it receives the Shire from Lake Nyassa. It flows next, east and south, to the Indian Ocean by several mouths.

The Limpopo takes its rise in the western slope of the Drakenberg mountains, curves round the Transvaal territory and reaches the sea in the latitude of the south point of Madagascar.

The Climate.—The greatest part of Africa lies within the tropics. This induces a high temperature, but it varies according to elevation. The absence of inlets of the ocean and gulfs and the prevalence of lofty mountains along the coast-line prevent the cool breezes of the ocean from penetrating into the interior. North of the equator, in the region between Lake Chad and the Red Sea, the mean annual temperature is 81°, and that of July 90° Fahr., but it is subject to great changes; and over the whole of the Sahara, so
The Climate.

great is the comparative cold that, as already stated, ice is formed. On the highland, about the Victoria and Albert Lakes, the temperature is milder than that of Rome in summer; in the centre of South Africa it has a winter cold varying with latitude; north and south of the tropics, Africa has a warm, temperate climate; yet in Algeria the heat or cold is sometimes extreme; while in the central parts of Cape Colony, cold in winter is often severe, and the ground is covered with snow. North Africa comprises a large portion of the great rainless belt of the Old World, yet rain falls periodically in torrents, even in some parts of the Sahara. Great tracts of the desert are subject to heavy dews. In South Africa, rain continues for months; in the Lake region of East Africa, rain falls almost without intermission for eight months in the year; and in Sierra Leone, on the west, the annual rain-fall amounts to 189 inches. Hot winds, called the Simoom and the Harmattan prevail in the north and west of Africa.

Botany.—The botany of Africa is divided into three districts—northern, central, and
The Flooding of the Sahara.

southern. In the north, oranges and olives are found in abundance, and the plains are covered with wheat and barley, intermixed with maize. Thick woods of evergreen, oak, myrtles, arbutus, and fragrant tree-heaths form the principal features of the landscape. In Lower Egypt the vegetation is not so luxuriant nor so diversified; but here we have to add several tropical products, such as the sugar-cane, indigo and coffee. One of the most interesting trees of North Africa is the argan-tree, from which argan oil, which is used as a substitute for the more valuable oils exported by the inhabitants of Morocco, and generally by the inhabitants of all the states bordering on the Mediterranean. The argan-tree grows more or less throughout the states of Western Barbary; the soil in which it grows is light, sandy, and very strong. It is usually seen upon the hills, which are barren of all else; and, where irrigation is impossible, they appear to be from one to three hundred years old. The largest measures twenty-six feet round the trunk; at the height of three feet it branches off.
The Argan-Tree.

The branches (one of which measures at the trunk eleven feet) rest upon the ground, extending for about fifteen feet, where they again ascend. The highest branches spread so as to give a circumference of 220 feet. The mode of propagation is mostly by seed. When sowing this, a little manure is placed with it, and it is well watered until it shoots, from which period it requires nothing further. In from three to five years after sowing, it bears fruit, which ripens between May and August, according to the situation of the tree. The roots extend a great distance underground, and shoots make their appearance at intervals, which are allowed to remain, thus doing away with the necessity for transplanting and sowing. When the fruit ripens, herds of goats, sheep, and cows are driven thither; a man beats the tree with a long pole, the fruit falls, and is devoured voraciously by the cattle. In the evening they are led home. When settled in their yards, they commence chewing the cud, and throw out the nuts, which are collected each morning as soon as the animals have departed upon their
daily excursion. Large quantities of the fruits are likewise collected by women and children. They are well dried, and the husk is taken off and stored for the camels and mules travelling in the winter, being considered very nutritious. The process of extracting the oil is simple. The nuts are cracked by the women and children—a stone is the only tool used for this purpose—the kernels are then packed in a common earthen vessel, ground in hand-mills of this country, and put into a pan; a little cold water is sprinkled upon them, and they are well worked by the hand until the oil separates, when the refuse is well pressed in the hand, which completes the process. The cake, in which a great deal of oil remains, owing to the want of a proper press, is generally given to the milk-cows or goats. Some of these argans grow in clusters, and others as single trees. The wood is hard and fine-grained, and of a yellow colour, and is used in house-carpentry and for other purposes.

Several varieties of the dwarf Palmittos are extensively used in the manufacture of ropes.
Vegetation.

The sides of some of the passes of the Atlas range are clothed with chestnut, ibex, and myrtle; evergreen shrubs, in endless variety, overhang the path. Arbutus (beautiful flowering shrubs, yielding red berries), yellow jasmine, several species of mimosa, and, conspicuous amidst all, the caper, with its singular-looking blossoms, predominate. Clinging to the sides of every fissure through which the mountain streamlets trickle are clusters of delicate ferns, eagerly stretching their tender foliage to catch the spray. The maiden-hair fern frequently holds on to the naked cliffs, with scarcely a vestige of earth in which to hide its roots. The different elevations of the mountain-side are distinctly marked by the varying vegetation—the pine gradually mingled with the juniper and tuyah, of the root of which, the wood having a deep red colour, most beautiful furniture is made. These at last give place to the cork-tree, which covers the lower heights, somewhat open in its growth. The spaces between the trees are beautifully carpeted with flowers of every variety. Prominent among these
are the scented yellow tulip, convolvulus, crocus, iris, and three kinds of mignonette—affording a rich pasturage to the flocks, while the valleys below are tolerably cultivated with arable crops. The absence of fences, and the clumps of trees frequently standing out on the landscape, recall the finest features of park scenery. Wells can easily be detected in the distance by the little groups of white poplars. Their foliage adds in no slight degree to the sylvan beauty of the districts.

The poorest of the natives of Upper Algeria eat the fruit of the acorns of a pretty species of dwarf evergreen oak. These acorns are regularly sold in the markets. They are cooked in various ways, like chestnuts, but are generally made into thick cakes.

Across the Atlas chain, the date-tree is the most important vegetable product; it forms a most valuable article of food for man and beast. The Sahara is its native home, it being peculiarly adapted to the high temperature and dryness of the desert. The fruit of this useful tree forms the principal food of the inhabitants of the Sahara. When the scanty
The Date-Tree.

vegetation is burned up, the camel and the horse share it with man. A variety of dishes are made from it, to which spices and other condiments are added. From the sap a pleasant beverage called palm-wine is prepared, and the young and tender leaves are boiled and eaten, and form a very palatable dish. In Upper Egypt, Nubia, and Abyssinia, various kinds of acacia-trees, which produce gum-arabic, and the cassias, which yield the medicinal senna, are found. In Abyssinia, ginger and coffee plants grow in abundance, and wheat, millet, dhurra, and and other varieties of corn are cultivated to a great extent. The perfume extracted from plants and trees of this region has been celebrated since the days of Herodotus.

In the Sahara, vegetation is more scant. A few straggling pines and several varieties of brushwood occur at intervals; forests of date-palms are found on the plains in the hilly districts of the country; onions, pumpkins, and melons are extensively cultivated in the oases of the desert. Wherever the soil is irrigated, either by artificial or natural means,
there the vine, almond, apricot-trees, and also barley and other corns, grow in great abundance; vegetables are cultivated in gardens made on the tops of the houses. In Central Africa, south of the Sahara desert, the botanical character of the country completely changes. The date-tree gives place to the gigantic breadfruit-tree and the tamarind-tree, the fruit of which has refreshed many a weary traveller. India-rubber-tree is of considerable commercial importance, and the fruit of the butter-tree forms an article of inland trade. Various kinds of palms, fruit-trees, and tobacco and other valuable plants are found in abundance throughout Central Africa. In treating of Soudan I shall give a more detailed account of these products of Central Africa.

In Southern Africa, the medicinal plant called aloe is found in many varieties. Creeping and climbing plants and golden flowers are very common throughout Cape Colony. The wax-tree is carefully cultivated on account of a vegetable wax which is extracted from the berries it bears. The most
delicious fruit known in Cape Colony is called the mandarin apple; it is a kind of orange, but the tree and the fruit are smaller than the European varieties. Water-melons and bulbous plants are numerous in South Africa; also plants known as euphorbia are abundant; important medicine is collected from them, the most important being a drug called euphorbium. South Africa possesses a large variety of trees, plants, and shrubs.

Animal Life in Africa. — The animal kingdom in Africa is as varied and indigenous as the vegetable. About 300 different species have already been discovered—nearly all those of the Old World being represented in their best varieties. The lion, king of the forest, is nobler and grander in Africa than in any other part of the world. Leopards, hyenas, and other beasts of prey, make their home in the forests; while the swamps on the lakes and rivers are occupied by the elephant, rhinoceros, and the huge hippopotamus. The giraffe, camel, zebra, gazelle, and antelope, roam in the plains. Monkeys of great size and of many kinds,
including the gorilla and chimpanzee, make the dense woods of the West Coast, near the equator, their home. The forests abound in parrots of bright plumage; the ostrich and many other birds are peculiar to Africa. The crocodile, the chief reptile, is confined to the larger rivers and lakes. There are serpents in Africa of large dimensions, and a few poisonous. Among the many thousands of insects found, the locust and the white ant are the most destructive and troublesome. In South Africa, a venomous fly called Tsetye, whose bite is nearly fatal to all domestic animals, abounds. The most important domestic animals are the horse and camel of North Africa, the Cape buffalo, and the mule of Senegal.

Mineral Products.—Our knowledge of the mineral products of Africa is yet imperfect, and the mines wrought are few. Iron, coal, and copper are simply extracted from the surface, wherever they appear. The most valuable mineral product of North Africa is rock-salt, which is found in abundance, and is used along with the shell called cowrie as money in
the interior. Gold, silver, lead, antimony, and copper are found in the Atlas range of mountains. Many parts of Soudan abound in iron, of excellent quality, copper, and soda. Gold is found in the rivers of Soudan and West Africa; it is collected and washed by the natives. Copper and diamonds of value are obtained in South Africa; coal is found near Mozambique. These and other valuable products will be lost to the commercial world until a highway is established with the interior.
CHAPTER II.

Discovery—People—Religion—Slave-trade.

Discovery.—Ancient historians have handed down to us accounts of the circumnavigation of Africa by Hanno, the Carthaginian admiral, and other navigators of antiquity; but the geographical knowledge concerning Africa possessed by the ancients, and that acquired by the Arabians of the tenth and fourteenth centuries, seems to be vague and incomplete. Modern African discovery commenced at the end of the fifteenth century—the Portuguese leading the van of the civilized nations of Europe in the great movement of maritime enterprise. They selected the West Coast of Africa as the most promising track along which to prosecute discovery. In the year 1433 Cape Bojador was passed by a navigator called Geleanez, and others succeeding him
passed Cape Blanco, exploring the entire coast of the desert, reaching at length the fertile shores of the Gambia and Guinea. The sudden bending inwards of the coast-line at the Gulf of Guinea gave a new direction and impulse to the activity of the Portuguese. Having no definite ideas of the breadth of the African continent, they imagined that, by continuing their course eastward along the Gulf, they would arrive at the renowned country of the great Prester John—a fabulous personage who was believed to reign with golden sway over an immense and rich territory, situated no one could tell exactly where—some contended it could be no other than in Abyssinia. The Portuguese, while prosecuting their discoveries along the African coast, did not neglect means for establishing a commercial intercourse with those parts of the coast which they had already explored. Settlements or factories for the convenience of the trade in gold, ivory, gum, different kinds of timber, and eventually also in slaves, were founded at various points of the coast between Cape Verde and Biafra; several missionary set-
tlements were also founded for the dissemination of the Roman Catholic faith among the natives.

The chimera of Prester John was succeeded by the more rational hope of effecting a passage to India by the way of Southern Africa. This great feat accordingly was at length achieved by Vasco de Gama, who in 1497, just four years after the discovery of America by Columbus, persisted in his course to the south so far as to double the Cape of Good Hope and point the way northward into the Indian Ocean. By his voyages and those of his successors, the Eastern Coast of Africa from the Cape of Good Hope through the Mozambique Channel to the Red Sea was soon defined as accurately as the Western Coast has been by the voyages of his successors; and thus the entire outline and shape of the great African continent were at length made known. This great service to science and to the human race was rendered, it ought to be remarked, by the Portuguese, who may be said to have conducted the enterprise of the circumnavigation of Africa from first to
last; and this is, perhaps, the greatest contribution which the Portuguese, as a nation, have made to the general fund of human knowledge.

The outline of Africa having thus been laid down in the maps, and the extent of its surface ascertained, the attention of discoverers was next turned to its interior. On the decline of Portuguese power, the English, French, and Dutch began to compete with each other in this field of enterprise. For the last 200 years discoverers and travellers of various nations have been adding to our information respecting this vast continent, and in consequence of their joint labours—some in one part, some in another—we are now able to form a tolerably distinct idea of Africa and of the field it presents for commercial and missionary enterprise.

Peoples of Africa.—The population of Africa is estimated at 199,921,600, 17¼ per square mile. These are divided into seven distinct varieties, which may be thus enumerated:—The Egyptian, Numidian, Nubian, the Abyssinian, the Negro proper, the Kaffir, and the Hottentot. The dialects of the
African races number no less than 190, and they have upwards of 100 distinct languages. The Copts of Egypt are considered to be the representatives of the ancient Egyptians. They are distinguished by long hair and yellowish-dusky complexions, a full visage, prominent eyes, flattish nose and thick lips, resembling the monumental sculpture of ancient Egypt. Generations of servitude have robbed them of the solemn dignity and that air of conscious power which they once possessed when they lived within great palaces in the ancient cities of the Nile, the ruins of which stand to this day to attest their power and splendour when the Israelites were living in huts and following the occupation of shepherds. The Copts form only about one-tenth of the population of Egypt, the bulk of which being composed of Arabs and Turks, speaking the Arabic language.

The Numidian race are supposed to include the people inhabiting that portion of Africa to the north of the eighteenth degree of north latitude, which extends from the valley of the Nile in the east to the Atlantic Ocean in
The Nubians.

the west. The Numidians are locally known as Moors, Berbers, Tawareks, Tibbans. It is questionable whether at any point of this vast region there are to be found any pure descendants of the aboriginal race; they have got largely mixed with Arab, Roman, and Phœnician blood, which has altered the character and appearance of the people.

The Nubians inhabit large tracts of country to the south of Egypt, and are generally distinguished by their long, oval faces, curved noses, thick lips, small chins, thin beards, keen dark eyes, and crisp, curly hair, and well-formed figures. They are excellent horsemen, and have more than once been employed by Egyptian rulers in their wars with the negroes.

Abyssinia is inhabited by a mixed race, with features approaching the European model, the nose being frequently aquiline; their persons are well formed, displaying no mean degree of activity and strength.

The true negro is only found in the districts drained by the Niger, Senegal, and Gambia, and in portions of Soudan, Sennar and
Kordofan. The prominent characteristics of the true negro are the black skin, greasy and soft woolly hair, projecting lower jaw and chin, a long and narrow skull, and a retreating forehead. The skull is also flatter on the top than that of any other African race. The bones of their legs bend outward, the calves of the leg are also very high, and the feet and hands are flat, the latter being also of unusual breadth. They are passionately fond of music, and display considerable skill in the construction of musical instruments. The negroes are moderately industrious, and excel in the construction of their dwelling-houses. They practise agriculture, work in iron and other metals, prepare the skins of animals, weave cloth, and manufacture many other useful articles.

The Kaffir race are a tall, well-formed and handsome people of a dark-brown colour, with hair in short woolly tufts. They generally use the spear in their wars; they can handle fire-arms with an aptitude beyond any other tribe.

The Hottentots reside in and about the
colony of the Cape of Good Hope; they are considered to be the aborigines of that region. They are generally smaller in stature than any of the other natives of Africa; they also differ in features from any other native races. The colour of their skin is a yellowish-brown; they have broad, low foreheads, high cheek-bones, and oblique eyes; their faces suddenly contract, and end in a narrow-pointed chin; the hair of their heads is of a singular nature, as it does not cover the whole of the scalp, but grows in isolated tufts, which are generally kept short; when suffered to grow, it hangs in hard, twisted tassels like fringe; the beard is thin and scanty, and hair is often altogether wanting on other parts of the body. The form of the Hottentot is slender and delicate, but their faces, unless in childhood, are so ugly as to be almost repulsive.

Religion.—The greater part of the negro population are heathens or pagans; the prevalent form of superstition is feticism—a kind of demon-worship. In their terrible religious delusion, thousands of unhappy victims are sacrificed every year in a manner
truly revolting. Missionaries have tried to turn these people from their ghastly customs, but with very little success. The Mohammedan religion has been disseminated by the Arabs among the races of Africa to a large extent, which has considerably improved their condition. In Abyssinia, a corrupt form of the Christian religion prevails among the people. Christian missionaries have done much to introduce civilization into Africa, but they have to encounter the evil effects of the conduct of so-called Christian traders, but all these and other obstacles would be effectually removed when once a direct communication is established with interior regions under proper guarantee.

*Slave-trade.*—The slave-trade is the greatest curse that ever befell the African continent. Great tracts of country have been depopulated, husbands and wives have been parted, children have been torn from their fond mothers, and have been treated by their tyrannical masters worse than the beasts of the field. In this horrible trade, crimes and

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1 See "The Lost Continent," by Joseph Cooper.
The Slave-Trade of Africa.

Cruelties of the most revolting character have been committed with impunity. Notwithstanding all the efforts of Great Britain and other powers, the slave-trade at the present time extends over the greater part of the northern, southern, and central regions of Africa; it covers an area nearly equal to that of the whole of Europe. The loss which it inflicts annually on the population of Africa is estimated at 1,000,000. The principal countries for which and by which the present African slave-trade is carried on are Turkey, Egypt, Persia, Tunis, Morocco, and Madagascar. Until legitimate commerce is established with the interior, it is vain to hope for the slightest decrease in that most abominable traffic. Honest trade carried on with the interior would soon teach the natives that their time would be more profitably employed in cultivating the products which would be readily taken in exchange for European merchandise instead of this nefarious trade. A direct contact with the civilized world would improve them socially and religiously.
Soudan.

Chapter III.


Boundaries and Extent.—Soudan, a region which has attracted the attention of ancient and modern nations, is a general name given to the most important portion of Central Africa. It is bounded on the east by Kordofan, on the south by Equatorial Africa, on the west by the Kong mountains, and on the north by the Sahara desert. The area of Soudan is approximately estimated at 631,000 square miles, or about five times the area of the British Isles.

Discoveries.—From the earliest times Sou-
dan attracted attention as being the country through which the famous Niger flowed, and on whose banks the great city of Timbuctoo, of the wealth of which vague accounts had reached the shores of the Mediterranean, was reputed to be situated. To ascertain the course of this river, and to reach this celebrated city, were the leading objects of all who engaged in the enterprise of African discovery.

In the year 1618, an English company was formed for the purpose of opening up a communication with Timbuctoo, and not long afterwards a similar company was formed in France. For a century and a half the two nations continued to compete with each other in the enterprise, the English trying to make their way up the River Gambia, which they imagined to be the outlet of the Niger—the French, on the other hand, persevering along the Senegal. It was clearly ascertained, however, that neither the Senegal nor the Gambia could be identical with the Niger.

There were several opinions regarding
this river; some held that the Niger did not flow into the sea at all, but terminated in some great marsh or lake in the interior of Africa, resembling the Caspian Sea, while others believed that the Niger was identical with the Nile. The honour of discovering this celebrated river was reserved to Mungo Park, who beheld the Niger with infinite joy on the 21st of July, 1796, at Sego, glittering to the morning sun, as broad as the Thames at Westminster, and flowing slowly eastward. The course of the Niger was ascertained by Richard Lander in the year 1830.

In 1822, Denham and Clapperton made a successful journey to Soudan across the desert; after them, Laing and Caillie penetrated this region, adding considerably to our geographical knowledge of Soudan; but the most extensive and thorough exploration of Soudan yet made was that accomplished by Dr. Barth in the years 1850-55. He gives a full and trustworthy account of the natural productions, the political and commercial relations, the languages and affinities of the
tribes, and their religious and moral condition, such as no previous traveller had the opportunity or the necessary qualifications to give.

*Physical Features.*—Soudan is divided by geographers into three physical regions,—First, the basin of the Niger, as far down as the town of Benin; second, the district around Lake Chad; third, the partially-explored country between Lake Chad and the Upper Nile.

The first of these lies between the Kong mountains and the Sahara, and is for the most part a level plain of moderate elevation. The district around Lake Chad is low and level, very little of it being over 1000 feet above the level of the sea, while Lake Chad is only about 800 feet. The basin of the Chadda, the great Central African tributary of the Niger, the lake, and the delta of the Niger, is mountainous—Mount Alantika attaining an elevation of about 10,000 feet. The third region, embracing Waday and Darfur, is said to be hilly and sterile, and to send its drainage to Lake Fittri to the east of
Lake Chad. It is said that neither of these lakes have any outlets, their waters being absorbed. In the rainy season these lakes cover a large area, but in the dry season they are much less. The entire length of the Niger, including windings, is estimated at 3500 miles. It was supposed, by ancient and even modern geographers, to be the upper branch of the Nile. Some started the notion that the Niger was distinct from the Nile, and that it emptied itself in a great inland sea, but the mystery of the Niger was at last solved by Mungo Park in 1796, and by Lander in 1830. The Niger has its rise in the Kong mountains due north of Cape Palmas, and flows in a north-easterly direction as far as Kabara the port of Timbuctoo, at which it makes a great bend and flows southward to the Gulf of Guinea, which it enters by several channels forming a delta. This river encompasses the whole of the southern half of North-Central Africa, including countries densely populated and of great productive capabilities. On its upper course it has many back-waters, and in one
place it forms Lake Debu. It has several tributaries in its course; the largest is the River Chadda, which has its rise somewhere in Adamawa. The Niger is rendered unfit for navigation near its mouth, on account of rapids and the unhealthiness of its banks; but a great part of its upper course and lower course is navigable, and the natives are continually making voyages with merchandise for the markets on its banks: indeed, it forms the great highway between Timbuctoo on the northern curve, and Yowaru, Jenni, Sananding and Sego in the west, and Gogo, Say, Sokoto, and Kano, in the east. The Niger inundates its banks like the Nile. According to the most accurate information, it continues to rise every year until the end of December or the beginning of January, and does not begin to decrease before February, while its eastern branch, as well as the lower course of the Niger, exactly as with the Nile, reaches its highest level by the end of August, and decreases steadily in the course of October.

*The Climate* of Soudan is generally healthy.
In some parts it is extremely hot during the dry season, which continues from March till June, when the thermometer stands at about 100 degrees in the shade. The rains in the central and eastern portion of the country are neither so incessant nor so heavy as on the West Coast.

The population of Soudan is estimated at 38,800,000 souls, composed chiefly of Fellatahs and Mandingoes.

The Mandingo people are supposed by some to have originally emigrated from Egypt; their language and the Coptic, being somewhat similar, would seem to strengthen this view. These tribes show more capacity for improvement than any other negro nation; they possess well-organized governments, and have their public schools, which are well-conducted. Agriculture has been carefully pursued by them; and in manufactures, especially in weaving and dyeing cloth, and tanning leather, and working iron, they are well skilled. Their merchants are enterprising and industrious; they were the first of the pure Africans to embrace Islam, and are
still zealous upholders of that faith. In character and temperament they are cheerful, inquisitive, credulous, and fond of flattery; their women are kept in absolute slavery, and the husbands frequently beat them for the most trivial faults. They are much inferior to the Fellatahs in this respect and in general civilization. Their language, which is written in Arabic, is the richest and most poetical of all the negro dialects. They are great travellers, and are intimately acquainted with the interior of Africa. They practise polygamy, but a separate hut is provided for each wife. The villages and towns are each possessed of a market-place and a mosque. The dress of the men consists of a coat, trousers, and sandals, while the women wear pieces of cloth wrapped round the body or fastened to the figure by a belt or a sash. Their weddings are made the occasion of great festivity. They are passionately fond of music; and they who sing and recite poetry form one professional class, while those who tell stories form the other.

The Fellatahs are the most powerful tribes
in Soudan. Their influence now extends from the Atlantic Ocean in the west, to Bornu and Adamawa in the east, and from the Sahara in the north to the Bight of Benni in the south, embracing a territory equal in extent to one-tenth of the whole African continent, and as large as a quarter of Europe. They are conspicuous for their noble bearing and fine features, resembling the people of Asia Minor and Central and Eastern Europe, while they display similar intelligence and poetical feeling. Their colour is a rich brown, not often deeper than that of Spaniards or Portuguese. Some, however, of these natives are black, with smooth hair; others of the lowest class are greyish-black. In their disposition they are grave and reserved, with capacity for the most fanatical enthusiasm. Great numbers lead a pastoral life, wandering in the midst of settled tribes; a larger number are engaged in agriculture and commerce. Their language has no relation with the dialects of the neighbouring tribes. These people are interesting to the historical student as having enacted within this century on
The Fellatahs.

the plains of Africa something of the part played so formidably by the Arabians in Asia under Mohammed. They are scattered throughout Soudan, and wherever they go they make their influence felt. United under fanatical religious leaderships they have conquered a Mohammedan empire, the most powerful in the interior of Africa. Many of their tribes are tributaries to those among whom they reside; others nomadic and independent, connected with no government or settled society.

As preachers of Islamism the Fellatahs have undoubtedly advanced the progress of civilization among the pagan tribes of Africa; for Mohammedanism, to a certain degree, restrains brutal passions, does away with human sacrifices, cultivates learning, and substitutes the sense of personal dignity and the belief in an immovable beneficent Providence, with the feeling of a membership in a vast community of believers, for the low habits, superstitious beliefs, and isolated selfishness of pagan tribes. It has aided, too, to a certain extent, in checking slavery and the
slave-trade, for the civil code of the Koran forbids the enslaving of a man born of free parents and professing the Mohammedan religion; and in no case can a Mohammedan be reduced to slavery. The Fellatahs have made use of this proclamation of liberty to the slave in their wars with other African states with great effect. The Fellatah empires, though holding loosely together at the present time, are still formidable, and must be the great instruments to Europeans for improving Central Africa. Although remarkably intelligent and eager for knowledge they have as yet no alphabet. They make use of the Arabic in writing, and those of them who have made pilgrimage to Mecca and to the Barbary States bring back Arabic books with them, which are eagerly read and studied. The learned among them frequently migrate for a time, and hire themselves to the various sultans and rulers in the north. This they do purely in pursuit of knowledge and for a competence which will enable them to give themselves up to a life of study; and when they have secured this, they return to their own country.
Soudan is the beloved home of the negro, and there he is to be seen at his best. He is far from being the miserable and degenerate creature which many writers and the slave-owners in all times and countries have tried to make him out to be. Generations of bondage and cruel treatment have no doubt degraded multitudes of them; but in his own country, and under favourable circumstances, the negro is no despicable member of the human family. Inferior to the Caucasian race in mental endowment, he is nearly their equal in physical strength and endurance; he is unquestionably less liable to disease, and can bear hardship better. He is certainly superior to the aborigines of America and Australia. We cannot therefore speak of the negroes of Soudan as savages. They have not invented the art of writing, and do not possess an alphabet, or even the hieroglyphics of other semi-civilized nations, but they have made considerable attainments in the useful arts, and in agriculture and various manufactures they show considerable skill. Open up for him a direct communication, and thus
enable him to meet the demand which this will occasion for the products of his country in the usual exchanges of commerce, and his position in the social scale will be at once raised. He is characteristically fond of gain, and this love of acquisition will aid his development considerably. His fortitude under affliction is worthy of the emulation of more civilized races. He is frugal and temperate, but on occasions of festivity, palm-wine, toddy or pombe-beer made from corn and various other vegetable products, is drunk to excess; but the effects of these unfrequent debauches are not serious. He is fond of oratory, and, when roused by strong excitement, expresses himself with much feeling and energy. Less the creature of impulse than the native of America, his temperament is more regular and his passions less violent. The women are docile, industrious, and with all their hard work, healthy and prolific. Under favourable circumstances they give a ready ear to the doctrines of Christianity. The success which has attended Islamism might help to convince us that these millions
could readily be Christianized were men and means adequate to the importance of the undertaking forthcoming.

Manners and Customs.—The Fellatahs rise at daybreak, wash, say their prayers, count their beads for about half-an-hour, and then chew a kola-nut; after which they sip a quantity of senkie (a preparation of dourra-flowers, flour and milk or water). At 10 a.m. boiled rice is served with melted butter. They then pay visits or lounge in the shade, hear the news, say prayers, and count their beads till sunset, when they take a meal pudding, with a little stewed meat or a few small fish; they then retire to rest. During the spring and harvest, the proprietors of estates ride out to their different slave villages (they enslave inferior negroes to look after their grain, cotton, and indigo plantations) or visit the places where they have their cattle. The wives of the principal people are occupied in directing the female slaves in their work, cooking their husbands' food, cleaning and spinning cotton, and dressing their hair, teeth, or eyebrows.
and eyelashes, which take up no little time. They also take charge of sending the females to market, to sell their spare cotton, senkie, millet-cakes fried in butter and fried fish. Fish are usually caught by the young male slaves. Much time is spent in receiving and paying visits, for they are great gossips, and are allowed more liberty than the generality of Mohammedan women. The dress of the men is a red cap, with a blue silk tassel; a white turban, a fold of which projects and shades the eyes—another fold can be brought over the whole face; and in the open air their faces are nearly always covered, save an opening for the eyes and mouth. A white shirt, a white robe, and trousers trimmed with silk, usually red or green, and a pair of sandals or boots, complete the toilet. When travelling, they wear over the turban a broad-brimmed straw hat. This is the dress of the better classes; the poorer people wear the same character of dress, only the material is inferior. Most of them carry a sword or a weapon of defence. The dress of the women consists of a cloth striped with blue, white,
and red, which falls as low as the ankles; silver rings in the ears, about one inch and a half in diameter; bracelets of horn, glass, brass, copper, or silver, according to the quality of the wearer; round the neck, beads and strings of coral; round the ankles, brass, copper, or silver, and sometimes rings on the toes as well as on the fingers. The fashionable ornament is a Spanish dollar, soldered fast to a ring. The poorer women have pewter, brass, and copper earrings. The hair is generally turned up like a crest on the top of the head, with something like a pigtail hanging down from each extremity, a little before the ears. Some of the Fellatah women have the hair frizzed out at the ends all round the head like a riband; this and all the plaited parts are well smeared over with indigo; the razor is applied to smooth all uneven places, and to give a high and fine arch to the forehead; they thin the eyebrows to a fine line, which with eyelashes are rubbed over with pounded lead-ore—this is done by drawing a small pen that has been dipped in the ore over them; the teeth
are dyed with the kola-nut, and a root of shining red colour; the hands and feet, the toe and the finger-nails are stained over with henna. A lady thus equipped is fit to appear in the best society. The looking-glass, which they often use, is a circular piece of metal, about one inch and a half in diameter, set in a small skin box.

Their marriages are celebrated without any pomp or noise. The bride is always consulted by her parents, but a refusal on her part is unknown. The dowry given by a man of good condition may be said to consist of young female slaves, carved and mounted calabashes or gourds filled with dourra and rice, cloths for the loins, bracelets, and the equipage of her wallet, one or two large wooden mortars for beating corn, stones for grinding, &c. These are carried in procession on the heads of her female slaves, when she first goes to her husband's house. They always bury their dead behind the house which the deceased occupied while living. All the relatives and friends of the deceased visit the head of his family and sit awhile
with the bereaved party. If the husband dies, the widows return to the house of their parents or other near relative with the property each took with her when married.

The slaves of the Fellatahs are generally well treated. They labour for their master from daybreak until noon, the remainder of the time being at their own disposal. They are encouraged to marry, and have small pieces of land allotted to them, which they cultivate for their own use. During the harvest they get a certain portion of grain, which they can either use or sell. Although allowed so much leisure time, the slave is always at the command of his master, and goes to war with or for him when ordered. The children of slaves belong to the master of the parents; when young, they act as herdsmen. The domestic slaves are allowed the same food as the members of the family, and are as nearly as possible on an equal footing with them. Slaves are either purchased or are captured in war.

In some parts of Soudan an old man's death is celebrated with a dance; for if a
person in old age dies, his death is considered a cause of satisfaction and mirth, while that of a young man is lamented with tears. Inoculation for the small-pox is practised by some tribes in the south.

The negro's mode of courtship is at once simple and business-like. A negro pays his addresses to a girl; and if, after a short acquaintance, he fancies she will answer his purpose, he simply gives or sends a small present to the parents, who rarely raise any obstacle to baulk his wishes, whereupon the female quits her father's house and resides as long as she lives with her suitor. The courtship of a Mohammedan is carried on in much the same fashion, with the addition of reading the fatha or marriage settlement. When they get tired of each other, the fatha is again read, and the couple part for ever with as much coolness and unconcern as if they had been utter strangers to each other, a custom said to be greatly relished by every one, and not attended by any unpleasant consequences. They have less of sentiment in love affairs than Europeans; they have no stolen interviews,
no rambling in verdant fields, no affectionate squeezes of the hand, no language of the eyes, no refined feeling, no moonlight reveries; all is conducted in the most un-poetical and business-like way imaginable, and is considered in the light of one of their least important concerns—the lover merely saying to his intended bride, "Should you like to become my wife, my dear?" to which the lady replies, "I have no objection." "Then come and live with me," he retorts. Then from that hour the couple reside together. This is the beginning and the end of their courtship, and a refusal on the part of the lady to embrace the proposal is never heard of.

In the neighbourhood of Lake Chad a marriage ceremony fills a whole week. The first day is dedicated to feasting on a favourite paste called hakia; second day to paste made of millet with an immense quantity of pepper; third to the common dish of Sarghum, with a little fish sauce, if possible; the fourth day the emblems of virginity are taken away; fifth day the bride is placed on a mat, from which she rises and sits down
seven times; the next day, which must be Friday, her female friends wash her head while singing, and in the evening she is placed on a horse and brought to the house of the bridegroom, and becomes a wife. The amusements of the Mohammedan negroes consist chiefly of poetry, music and dancing. Their bards are numerous and are divided into two classes. The first or highest class recount the deeds of former great warriors, and always accompany the chiefs in their wars to inspire the fighting-men with courage and fortitude. The other class are religious fanatics, and traverse the country, singing hymns and directing the performance of religious ceremonies. Their musical instruments are: the koonting, a sort of guitar with three strings; the korro, a large harp with eighteen strings; the sembing, a small harp with seven strings; the calafon, an instrument composed of twenty pieces of hard wood of different lengths, with the shells of gourds underneath to increase the sound; the tang-tang, a drum open at the lower end; and, lastly, the tabala, a large drum commonly used to spread an alarm through the
country. Besides these they make use of small flutes, bow-strings, elephants' teeth hollowed, and small bells; and at all their dances and concerts clapping of hands appears to constitute a necessary part of their chorus. Dancing and especially athletic exercises occupy a large portion of their time. A wrestling-match is conducted as follows:—The spectators arrange themselves in a circle, leaving the intermediate space for the wrestlers, who are strong young men, full of emulation, and accustomed from their infancy to this sort of exertion. Being stripped of their clothing, except a pair of short drawers, and having their skin anointed with oil or vegetable butter, the combatants approach each other on all-fours, parrying with and occasionally extending a hand for some time, till at length one of them springs and catches his rival by the knee. Great dexterity and judgment are now displayed, but superior strength does not decide the contest. The combatants are animated and regulated in their actions by the music of a drum. The wrestling is succeeded by a dance, in which many performers assist. Every performer is
provided with little bells, which are fastened to their legs and arms. The drum regulates their motions. It is beaten with a crooked stick, which the drummer holds in his right hand, occasionally using his left to deaden the sound, and thus vary the music. The drum is likewise applied on these occasions to keep order among the spectators by imitating the sound of certain Mandingo sentences; for example, when the wrestling-match is about to begin, the drummer strikes what is understood to signify "Sit all down," upon which the spectators immediately seat themselves; and when the combatants are to begin, he strikes, "Take hold, take hold!"

There are great annual festivals held throughout the greatest parts of Soudan. They partake of a military and religious character. The following is an account by Dr. Barth, an eye-witness of one which took place in the capital of Bornu:—On the day of the great festival, the common people put on their best dresses, and it is a custom in large establishments that servants receive a new shirt on this day. In the
morning of the festival the streets were crowded with men on foot and on horseback, passing to and fro, all dressed in their best. It had been reported that the sheikh was to say prayers in the mosque, but it was soon discovered that he was to pray outside the town. As large troops of horsemen were leaving it through the north gate, at the same time, several cavalcades were seen coming from various quarters, consisting of officers, each with his squadron of from 100 to 200 horsemen, all in the most gorgeous attire, particularly the heavy cavalry, the greater part being dressed in a thick stuffed coat, over which were worn several tobes of all sorts of colours and designs, and their heads were covered with a helmet very nearly like our knights in the middle ages, but of lighter metal, and ornamented with the most gaudy feathers. Their horses were covered all over with thick clothing of various-coloured stripes, consisting of three pieces, leaving nothing but the feet exposed, the front of the head being protected and adorned by a metal plate. Others were dressed in a
coat of mail. The lighter cavalry were only dressed in two or three showy tobes, and small white or coloured caps; but the officers and more favoured attendants wore burnouses of finer or coarser quality, and generally of a red or yellow colour, slung in a picturesque manner round the upper part of their body, so that the inner wadding of richly-coloured silk was most exposed to view. All these dazzling cavalcades, amongst whom some excellent horses were seen prancing along, were moving towards the northern gate, while the troop of the sheikh himself, who had been staying in the western town, was coming from the south-west. The sight of this troop, at least from a little distance, was really magnificent. The troop was led by a number of horsemen; then followed the livery slaves with their matchlocks, and behind them rode the sheikh, dressed as usual in a white burnouse as a token of religious character, but wearing round his head a red shawl. He was followed by four magnificent chargers clothed in silk of various colours. That of the first horse was striped
white and yellow, but the second white and brown, that of the third white and light green, and that of the fourth was white and cherry red. This was certainly the most interesting and grandest part of the procession. Behind followed four large ensigns of the sheikh, and the four smaller ones of the musketeers, and then a numerous body of horsemen. This cavalcade of the sheikh now joined the other troops, and the whole body proceeded to a place about a mile from the town. Here the sheikh’s tent was pitched, consisting of a cupola of considerable dimensions with blue and white stripes, with curtains one half red and the other white. These curtains were only half closed. In this tent the sheikh himself, the vizier, and the first courtiers were praying, while the numerous body of horsemen and men on foot were grouped around in the most picturesque and imposing variety. There were at least 3000 horsemen present, and from 6000 to 7000 armed men on foot—the latter partly armed with bow and arrow. There were besides a great number of spectators. The ceremony did
not last long, and as early as nine o'clock
the ganga summoned all the chiefs to mount,
and the dense mass of human beings began
to disperse, and entered the town by the
western gate.

Religion and Education.—All the tribes of
Soudan are mostly Mohammedans. It ap-
ppears that this religion was introduced into
this country as early as the seventh century,
and since that time it has made a marked and
steady progress, and improved the condition
of those races to a very great extent, where-
ever Islamism made its appearance. The
abnormal religious practice of sacrificing
human beings has disappeared, and has
welded the tribes into political states of con-
siderable magnitude. At some period there
appeared among the people of Soudan religious
reformers, unfurling the sacred banner of their
faith, and who with their fanatical followers
formed new empires upon the ruins of the
kingdoms they pulled down in their religious
zeal. Othman, the founder of Sokoto and
Gando, was the ablest and most energetic of
these reformers. He commenced his career
in 1802, and he fired his followers with the highest religious enthusiasm by his poetic effusions. The following may serve as a specimen of his genius:

God, the Lord, He excels all in superiority:
He is greater than you, Ahmed; (Mohammed)
His light illumines the whole earth.
I praise the Lord God, who sent His blessing.
He sent Mohammed to all His creatures.
His light shines over all His creatures.
The light of His intelligence, as well as that of sight, all comprising;
the splendour of Imám of the Faithful reaches everywhere;
all the splendour of the holy men and of the prophets.
and when sun and moon unite all that is splendid,
their light does not reach His resplendence.
God blessed Abraham among the whole of His creatures.
Moses obtained eloquence among mankind.
To Jesus was given strength and spirit.
Thou hast obtained a sight of Him (of God);
thou hast obtained eloquence and authority.
God has distinguished Adam among all mankind.
Thus Noah and Abraham were distinguished in all their dealings;
Kurísh Hásheen in their dwellings.
By God thou hast been distinguished over all God's creatures.
All the creatures of God, in heaven and on earth, bless thee:
all the creatures of God, in heaven and on earth, praise thee:
all the creatures of God, in heaven and on earth, salute thee:
all the creatures of God, in heaven and on earth, do homage to thee:
all that is blessed in creation is blessed through thee.
all those who have been distinguished among the creatures have been distinguished on thy account:
All that has been created has been created through thy grace.
On account of thy blessing have I come to thee.
for such a purpose have I addressed thee.
May God hear thy prayer through thy grace.

The Mohammedans of these regions establish schools in every town and village, where children are taught reading and writing Arabic. The Koran forms the principal textbook. Every one, whether pagan or Mohammedan, is instructed in the tenets of the prophet; the Mohammedan priests fix a bias in the minds, and form the character of their young disciples, which is not easily removed in after-life. The children are docile and submissive. It is to be deplored that they do not receive better instruction, and a pure religion. The time may not be far
Government.

distant when this country will be opened to the beneficent influence of the Gospel. The male children of the great are sent to a town at some distance from that where their parents reside, to receive their education, and there they usually reside in the house of a friend, with a teacher to attend them. Those of the middle and lower classes send their children to the schools, which they attend for an hour at daybreak and another at sunset, reading their Arabic lessons simultaneously. They are required to get their lesson by heart before the writing is washed off the board on which it is written.

Government.—A feudal form of government prevails in a great part of Western Soudan; in the central, under the power of Fellatahs, it is more of the republican type; Bornu is elective; in Bagirmi, Waday and Songhay, it is more despotic. Every state is divided into a great number of provinces, each ruled by a governor, who is appointed by the king or sultan of each empire. These governors administer justice, and from their decisions there is seldom any appeal. Each
governor has the army and police of his province under his immediate command. Sometimes they direct their power against their master.

Slave-trade.—Notwithstanding the efforts that have been made to abolish the slave-trade in Soudan this infamous trade is still carried on to a large extent. Expeditions are continually organized against the pagan states to capture slaves for the dealers from the north. In every large city in Soudan these poor unfortunate creatures are led about the towns and offered for sale in famished bands, as if they were cattle from these markets; they are marched over the desert, many of them perishing on their journey, and their bleached bones strewed over the ground strike terror into the traveller. From accounts, it appears that the natives of Soudan treat their domestic slaves pretty well, especially if they embrace their Mohammedan faith, but the sufferings of pagan slaves defy description. It would be difficult to make an estimate of the annual number torn from their homes and sent across the desert for the supply of the Mohammedan
countries; but we find that provinces of every empire in Soudan are supposed to supply a certain number of slaves to the sultans every year. In Appendix IV. will be found an able summary of the slave question, kindly supplied to me by Mr. Joseph Cooper; but every one interested in this subject should read his excellently written book entitled "The Lost Continent." This work gives a trustworthy account of slavery all over the world.

FEMALE SLAVE AT WORK.

F 2
PRODUCTIONS OF SOUDAN.

CHAPTER IV.

Botany — Animal — Mineral — Political Divisions of Soudan.

The recent researches of several eminent travellers have added considerably to our store of knowledge of the botanical, animal, and mineral wealth of Soudan. These are regions of vast natural resources, which still remain undeveloped, not from want of energy and enterprise on the part of the thirty-eight millions of people who inhabit them, but from want of direct intercourse with the civilized world. They would gladly exchange their raw material for our manufactures, if they had an opportunity for doing so; but the present tedious and expensive system of transit renders a great part of their valuable produce useless. Soudan is a well-watered
country, and produces all kinds of vegetation in great abundance, dense forests of valuable timber, and a great variety of fruit-trees found all over the country. I shall devote this chapter to a general description of the most important and interesting products of Soudan.

**Botany.**—The butter-tree, one of the most remarkable trees in the world, abounds over a great portion of this country. It resembles the American oak. Its fruit, when dried in the sun and boiled in water yields what is called vegetable butter, and that is said to be richer in flavour than the best butter made from cows' milk, and will keep for a whole year without salt. The natives carefully collect its fruit, and the butter, when prepared, forms a staple article of inland trade.

**Cotton.**—The people of Soudan are great cotton growers, which they weave, dye, and manufacture into shirts.

**Mimosa.**—This tree is found all over Soudan. The charcoal prepared from it is used for making powder.

**Gherrit.**—The general appearance of the
fruit of this tree is like that of the tamarind. It is a very important medicine, especially for dysentery. The same tree is essential for preparing the water-skins—that most necessary article for crossing the desert.

The tamarind-tree is met with all over this country; it attains a height of from thirty to forty feet, and is a beautiful object; its leaves are pinnate, and are not placed opposite each other on the stem, but are alternately on either side. Each leaf has from twenty to thirty leaflets, and fragrant flowers with thin petals; the pods, which grow when the flowers have fallen, are about as thick as a man's finger, and contain many small seeds. The pods are filled with a sweet reddish-black pulp; this pulp, now principally brought to England from India, is mixed with its seeds and fibre; and then has the consistency of a jelly. The wood is of exceeding hardness and of great beauty.

The baobab or the breadfruit-tree.—Of all the trees of Soudan, this is the most magnificent. It does not rise to a great height. Very few specimens reach an altitude of 100
feet. Its diameter, however, exceeds that of any other known tree. Many specimens have been seen over 100 feet in circumference. The trunk rises like a dwarf tower to a height of from twenty to thirty feet, and then throws out branches, as thick themselves as great trees, to a distance of 100 feet—their extremities bending towards the ground. It is covered with a mass of dark green leaves, amid which the splendid white flowers, hanging to peduncles of a yard in length, afford a fine contrast. The bruised leaves of this tree are eaten by the natives with their daily food, and are found invaluable for diarrhoea, fevers, &c. The fruit is the size of the citron, and is eaten with or without sugar. The juice is greatly relished as a beverage, and this also is said to be an excellent remedy for fevers. The monkey tribes in all their varieties are seen busy with the fruit, in the midst of their ceaseless gambols and chatter. The baobab is said to reach the greatest age of any tree; it is stated that some live for thousands of years. It is noted for its extraordinary vitality. The bark may be regularly stripped
off, to be made into ropes, nets for fishing, or clothing, and it is speedily renewed. Specimens have been found flourishing in full splendour with the inside of the trunk hollowed out into a chamber, which could house a score of people. One half of the trunk may be cut or burnt away, but so long as it has a connexion with the roots, it continues to flourish and to yield fruit. Native villages are often built round a huge baobab; and under its far-spreading branches, which form an agreeable shelter from the rays of the sun, is the place of assemblage where all the public business is transacted. The circuit described by the extremities of the lowest range of branches is fenced round so that none but those privileged to attend those meetings can intrude.

Kajiji is plentiful. The root of this plant is about the size of a nut. The natives use it in a most extensive way for perfuming themselves. Elastic gum-trees and large and beautiful fig-trees abound, and spread their shade all round. Gonda-bush bears a most delicious fruit, richly deserving to be called
the cream-apple; it affords the greatest relief after a long day's journey.

The kola-nut is one of the greatest luxuries of Soudan, and is also a most important article of trade. Possessing this, the natives do not feel the want of coffee, which they might so easily cultivate to any extent. The trees on which the nut grows, of which there are several varieties, attain a height of about forty feet; the bark of the tree is smooth, and the leaves entire. After the flower is shed, one and sometimes two pods, each containing several nuts, make their appearance. The leaves are about eight inches long, and the flower of the best-known variety is a pale yellow, spotted with purple. A small piece of one of the seeds or nuts is chewed before a meal as a promoter of digestion.

The sugar-cane grows wild in several parts of Soudan. A native living in the neighbourhood of Sokoto has a plantation of it, and boiling-houses, on a small scale, for extracting the sugar. Tobacco is grown to a considerable extent in some places. Date and a variety of other palms flourish in most parts
of this country. Indigo of the finest quality is cultivated on a very extensive scale.

Rice.—In the low-lying parts of Soudan, rice is produced in great abundance, and could be cultivated to any extent in most parts of the country. The natives engage in agriculture over the whole of Soudan, though the plough is an implement unknown to them. They irrigate the land by artificial process. Several kinds of grain are grown, such as wheat, maize, barley, and millet. In some places the produce of the field is stored in large granaries raised on poles, as a security against vermin. If these people had roads by which they could export these productions to the European markets, the cultivation would be more extensive than it is at present. The productive capabilities of the country are such that, were it once opened up, the supply of native produce for these markets would be almost unlimited.

The game of these regions is abundant, consisting chiefly of antelopes, gazelles, hares, very large partridges, small grouse, wild ducks, geese, snipes and pigeons, of which 300
can be purchased at their markets for 4s. 2d.; also the ostrich, the flesh of which is much esteemed; pelicans, cranes in great numbers, with a variety of other large birds of the crane species, are also found in the marshes. The woods abound with the guinea-fowl.

**Wild Animals.**—Lions, panthers, tiger-cat, leopard, hyæna, jackal, fox, and hosts of monkeys are found in the forests. The elephant is so numerous as to be seen near Lake Chad in droves of from 40 to 400. This noble animal is hunted and killed for the sake of his flesh, as well as the ivory of his tusk. The buffalo, the flesh of which is a delicacy, has a high game flavour. The crocodile and hippopotamus are numerous, and are both eaten; the flesh of the crocodile is extremely fine, with a green, firm fat resembling the turtle. The giraffe is killed by buffalo hunters in the woods and marshy ground for the sake of both flesh and skin.

**Domestic Animals.**—The beasts generally used for the transit of goods are the bullock
and the ass. A very fine breed of the latter is found in the Mundara valleys. A fat bullock can generally be purchased for 13s. Camels are sometimes used by the natives for carrying goods, but not to any extent. They are exclusively used for crossing the desert. Horses are to be found all over Soudan, but they are used mostly for military purposes. The natives have improved the breed by introducing horses from Barbary and other countries. Sheep, goats, and horned cattle are reared in great numbers by the natives, and are sold very cheap throughout the country. A good sheep can be had for 2s.

Minerals.—The chief mineral products are gold, iron, and copper. Gold is generally found in the rivers and streams. After the annual inundations have subsided, a great number of people are employed in collecting the mud which the streams have brought from the mountains. By an operation, somewhat tedious, the small particles of gold are separated from the mud and sand with which they are incorporated. This operation consists in repeated washings, and is always
performed by the women. Sand and mud procured in this way are frequently dug in such veins of clay and earth as have been deposited by water at a more remote period. An industrious gold collector can gather as much in a single dry season as will maintain himself and family for a whole year. The gold collected is bartered for European and other goods. It is also given in exchange for salt, which is a very scarce and valuable commodity in many parts of Soudan. A man who can afford in these regions to eat salt to his meat is considered rich. Iron of a good quality is found throughout the country, and the natives possess the art of smelting it, and turning it to many useful purposes. They erect smelting furnaces similar to those of our own country. Copper-mines are worked in Eastern Soudan.

Political Divisions of Soudan.—Soudan is divided into a great number of independent states, but those best known are eight in number. The area of Soudan is approximately estimated at 631,000 square miles. The population is estimated at 38,800,000.
A Table of the Political Divisions of Soudan.

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<thead>
<tr>
<th>Principal Empires and Provinces</th>
<th>Chief Towns</th>
<th>Population</th>
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<tbody>
<tr>
<td>Bambarra, Empire of</td>
<td>*Sego.</td>
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<td>Sansanding.</td>
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<td>Jenni.</td>
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<td>Massina, Empire of</td>
<td>*Hamda Allhi</td>
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<td>Yowaru.</td>
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<td>Gundam.</td>
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<td>Songhay, Kingdom of</td>
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<td>Ghergo.</td>
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<td>Yoriba</td>
<td>Egga.</td>
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<td>Bornu, Empire of</td>
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<td>Kanem, Province of</td>
<td>*Kuka.</td>
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<td>Musgu</td>
<td>Masena.</td>
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<td>Bagirmi, Kingdom of</td>
<td>*Abeshr.</td>
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<tr>
<td>Waday</td>
<td>*Kobbe.</td>
<td>6,000</td>
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All marked thus (*) are Capital cities.
BAMBARRA.

CHAPTER V.

Description of Bambarra—Sego—Jenni—Sansanding—Yamina.

The Empire of Bambarra is bounded on the south by the Kong mountains, on the north by the Sahara, on the east by Massina, and on the west by Senegambia. Bambarra was the first state of Soudan visited by Mungo Park on his celebrated journey. Here he first saw the fruits of native industry and civilization; it was at Sego, the capital city of Bambarra, that he beheld with infinite joy the object of his search, the long-sought-for Niger. It was at this city, when he arrived hungry, weary, penniless, and in despair, that he was relieved by kind native women, who cheerfully supplied all his wants, and made him the subject of the following song:—
The loud wind roar'd, the rain fell fast,
The white man yielded to the blast;
He sat him down beneath our tree,
For weary and sad and faint was he.
And ah, no wife or mother's care
For him the milk or corn prepare.
The storm is o'er, the tempest past,
And Mercy's voice has hush'd the blast;
The wind is heard in whispers low,
The white man far away must go;
But ever in his heart will bear
Remembrance of the negro's care.

The Niger flows through the entire length of Bambarra in a north-easterly direction, and receives many tributaries in its course, fertilizing the surrounding country and rendering irrigation easy. Two crops of rice, corn, maize, and yams are raised every year throughout the greatest part of the country with comparative ease. It is favoured with a healthy climate, although the heat is great in some parts. The vine in its wild state is met with in Bambarra, and the country is adorned with extensive forests of valuable timber. The cotton-tree and a variety of palms abound; the invaluable butter-tree and the magnificent baobab are found everywhere.
Agriculture is diligently pursued by the people of Bambarra, and tobacco is extensively cultivated. They rear a number of domestic animals. The chief of them are horned cattle, sheep, goats, and excellent horses.

In the southern districts, gold-dust and iron are the principal mineral products, and found in abundance. Salt is exceedingly scarce here, and, as elsewhere, is considered a great luxury. Their children suck a lump of salt with as much pleasure as an English child would sweets. They receive their supply of this valuable article from the Arabs and Berbers of the Sahara, who exchange it for gold and other products. The manufacturing industry of the people of Bambarra forms a striking proof of the advancement of civilization in this part of the world. They weave and dye cloth in a very creditable manner, and tan leather on an extensive scale. They particularly excel in the manufacture of gold ornaments. They also work ivory and iron. They carry on an extensive trade in European manufactures, which they receive by means of caravans crossing
the Sahara. The government is a nominal monarchy, but each governor or chief of a state acts almost independently. The population is approximately estimated at 3,000,000. The Mandingoes are the principal inhabitants, although several tribes of inferior negroes are scattered over the country. The greater part of the people have embraced the Mohammedan religion, and the pagan tribes are gradually giving in their adhesion to Islamism.

Education forms the chief instrument by which zealous Mohammedan teachers spread their religion. Schools are established by them in every town and village. The only book used is the Koran. The young are instructed in its religion and laws, and taught to write the Arabic language. There are a large number of populous towns and villages in this country, but the most important in a commercial point of view are Sego, Sansanding, Jenni, and Yamina.

Sego is the capital of Bambarra. The view of this extensive city, the numerous canoes upon the river, the crowded popula-
BEGO, THE CAPITAL OF BAMBARA.
tion; and the cultivated state of the surrounding country, present altogether a prospect of civilization and magnificence that one would not expect to find in the bosom of Africa. Sego stands on both banks of the Niger, across which there is an important ferry for the transit of goods and people, and large numbers of boats and canoes are constantly making the passage. The streets are about twenty feet broad, and are kept remarkably clean. The most of the houses are well built, and many of the mosques, of which there are a large number, have considerable architectural pretensions. The houses are built of clay and are flat roofed; many of them are two stories high. The palace of the king is said to have accommodation for 2000 men and 500 horses. It is simply a series of houses surrounded by a clay wall. The towns are surrounded by mud walls. The country round is very carefully cultivated. The home and foreign trade of the place is considerable. The population is about 30,000.

Sansanding is situated on the left bank of the Niger, about twenty miles north-east of
The Town of Sansanding.

Sego, and contains a population of about 11,000 souls. It has no public buildings except the mosques, two of which, though built of mud, show an excellent style. The market is a large square, and various articles of merchandise are exposed for sale on stalls covered with mats to shade them from the sun. The market is crowded with people from morning to night. Some of the stalls contain nothing but beads, others indigo in balls, others Koussa and Jenni cloth. Some stalls have nothing but antimony in small bits, another with sulphur, and a third with copper and silver rings and bracelets. The merchants occupying the houses fronting the square sell scarlet and amber silks from Morocco, and tobacco, which comes by way of Timbuctoo. Adjoining this is the salt market, part of which occupies one corner of the square. Large butchers' stalls in the centre of the square are supplied with meat as good as that sold every day in London. The beer market, a little distance under two large trees, daily presents for sale from eighty to one hundred calabashes of beer, each containing
about two gallons. Near to this market is the place where the red and yellow leather is sold. Besides these there is a large space used for a great fair, every Tuesday. On this day astonishing crowds of people come from the country to buy goods wholesale, which they retail in different villages. There are commonly from sixteen to twenty large fat Moorish bullocks killed on the market mornings. Here, as in all other populous towns of Soudan, the Moors and Berbers have the entire monopoly of the foreign trade.

Jenni is situated on an island formed by a branch of the Niger to the eastward of San-sanding. It was founded about A.D. 1043, and soon became wealthy, owing to the trade in salt and gold. In 1204 the people of Jenni, at least the ruling classes, including the king, adopted Islam. In 1260 this town and the province to which it gives its name began to rise to great commercial importance. After being often conquered, it is now tributary to Bambarra, and is the seat of a governor. The town of Jenni is about two miles and a half in circum-
The Town of Jenni.

ference. It is surrounded by a very ill-constructed earth wall, about ten feet high, and fourteen inches thick. There are several gates, but they are small. The houses are built of bricks dried in the sun. The sand of the isle of Jenni is mixed with a little clay, and it is employed to make bricks of a round form, which are sufficiently solid. The houses are as large as those of European villages. These are all terraced, have no windows externally, and the apartments receive no air except from an inner court. The only entrance, which is of ordinary size, is closed by a door made of wooden planks, pretty thick, and apparently sawn. The door is fastened on the inside by a double iron chain, and on the outside by a wooden lock made in the country. Some, however, have iron locks. The apartments are long and narrow. The walls, especially the outer, are well plastered with sand, for they have no lime. In each house there is a staircase leading to the terrace, but there are no chimneys, and consequently the slaves cook in the open air. The streets are not straight, but they are broad enough for a
country in which no carriages are used. Eight or nine persons may walk in them abreast. They are kept in good order, being swept almost daily. The environs of Jenni are marshy and almost destitute of trees. Before the rains set in the plains receive some tillage and are all sown with rice, which grows with the increase of the water of the river. The slaves are the cultivators of this grain. Tobacco and other plants are also cultivated on the banks of the river. They also grow carrots and European turnips, the seeds of which are brought from Tafilet. In the marshes is found a kind of forage, which is cut and dried for the cattle. In places not exposed to the inundation they cultivate only maize and millet. The town of Jenni is full of bustle and animation. Every day numerous caravans of merchants are arriving and departing with all kinds of useful productions. In Jenni there is a mosque built of earth, surmounted by two massive but not high towers. It is rudely constructed, though very large. It is abandoned to thousands of swallows, who build their nests in it.
This occasions a very disagreeable smell, to avoid which the custom of saying prayers in a small court has become common. Numbers of beggars, reduced to mendicity by old age, blindness, or other infirmities, resort to the environs of the mosque daily. The town is shaded by some baobab and date trees. Numbers of large canoes—some afloat, waiting for their cargoes, and others ashore to undergo repairs—may always be seen in the port of Jenni.

The market is attended by a large number of people. It is well supplied with all the necessaries of life, and is constantly crowded by a multitude of strangers and the inhabitants of the neighbouring villages, who attend to sell their produce and to purchase salt and other commodities. Several rows of dealers, both male and female, may be seen. Some erect little palisades of straw to protect themselves from the heat of the sun. Over these they throw a paque, and thus form a small hut. Their goods are laid out in little baskets placed on large round panniers. Some of the shops in the market are well
stocked with European commodities, which sell at a very high price. They have a great variety of cotton goods, printed muslins, calicoes, scarlet cloth, hardware, flints, &c. Nearly the whole of these articles are of English manufacture, but their muskets, which are much esteemed by them, are of French make. Among the other articles on sale are glass trinkets, imitation coral and amber, sulphur in sticks, and gunpowder, which it is said the natives manufacture. There are butchers in the market who lay out their meat much in the same way as their brethren in Europe. They also thrust skewers through little pieces of meat, which they smoke dry and sell retail. Great quantities of fish, fresh as well as dried, are brought to this market, in which are also to be had earthen pots, calabashes, mats, and salt. But the salt in the market is only sold retail; that which is sold wholesale is kept in warehouses. There are continually a great number of hawkers in the streets, who cry the goods which they carry about with them as in Europe. They sell stuffs made in the.
country, cured provisions, kola-nuts, honey, vegetable and animal butter, milk, and firewood. Millet straw is sold in the market, and, in the evening, negro women may be seen purchasing each a certain quantity for ten cowries, to cook their suppers. The Moors of Jenni do not keep shops; they employ confidential agents to sell on their account. It is their custom to sit on mats before their doors, with some cakes of salt beside them, and in this way they wait for customers to buy their goods, or others who may wish to sell. Thus they accumulate, without giving themselves much trouble, great quantities of ivory, gold, rice, millet, honey, raw wax, cured provisions, and small onions. These articles they deposit in their storehouses, whence they forward them to Timbuctoo, where they have correspondents, who send them in exchange salt, tobacco, and European merchandise. There are also Marabouts among the negroes of Jenni, but the trade they carry on is not so considerable. The principal articles they deal in are tamarinds, pimento, long pepper-leaves, fruit
of the baobab and beans, which are brought to Jenni by the people of the caravans. They also send to Timbuctoo calabashes and earthen pots for culinary purposes. The wax purchased at Jenni is used for candles, which are made without moulds, and generally consumed through the country. Quantities are sent to Timbuctoo, where they are in great demand. The Moorish merchants resident in Jenni are about forty in number. They occupy the best houses, which have the advantage of being situated near the market. The principal trade of the place is in their hands. They form companies of several partners, and are owners of large barges, which carry cargoes of native produce to Timbuctoo. Gold is brought to Jenni by the Mandingoes of the Kong country, and the merchants of Bouri. It forms a principal branch of commerce for these rich traders. They also deal in slaves, whom they send to Tafilet, Morocco, Tunis, and Tripoli. They lead these unfortunate beings about the streets, and cry them for sale at the rate of twenty-five, thirty, or forty thousand cowries, according
to their age. The Moors of Jenni keep a considerable number of these poor creatures, but it is said that they treat them very well; they are well fed, well clothed, and not hard worked. In general they become confidential servants, who take care of the house in the absence of the master, or pack the merchandise and ship it. They are often trusted by their masters with money, without any apprehension of their stealing it. It is pleasing to see conduct so well calculated to promote fidelity adopted towards them.

The population of Jenni includes a number of resident strangers, as Mandingoes, Fellatahs, Bambarras and Moors. They speak the language peculiar to their respective countries, besides a general dialect called Kissour, which is the language currently adopted as far as Timbuctoo. The inhabitants number altogether about 10,000. One of the governors of Jenni, a brother of the king of Massina, and a zealous Mussulman, finding that the great trade of the town interfered with his religious duties, and drew aside the true believers from their devotions, founded an-
other town on the right bank of the river; he named it El-Lamdou-Lillahi (To the praise of God). At this place there are public schools in which children are taught free; there are also schools for adults, according to the degrees of their information. When the scholars know the Koran by heart, they are looked upon as learned men; they then return to their native places and enter into trade. Foreign merchants settled in the country are not subject to taxes any more than the natives, but they send presents to the chief. The inhabitants of Jenni are civil to strangers, especially to those of their own faith; and they put traders in the way of disposing of their goods. They have several wives, whom, however, they do not ill-treat, like the negroes further to the south. The women never go out unveiled, and are not allowed to eat their meals with their husbands, or even with their male children. The girls, when they attain a suitable age, assist their mothers in cooking, washing, and other household business. They occupy their leisure moments in spinning cotton, which they buy in the market. The
people know no other writing than that of the Arabs. Almost all can read, though few understand it. The inhabitants live very well; they eat rice boiled with fresh meat, which may be procured every day in the market. With the fine millet they make cooscoosoo; this is eaten with fresh or dried fish, of which they have a great abundance. Their dishes are highly seasoned; they use a good deal of allspice, and salt is common enough to enable every one to get it. The expense of food for a single individual per day is about twopence. A piece of meat which costs twopence-halfpenny is enough to furnish a dinner for four persons. They generally make two meals a day, all sitting round one dish, and each taking out a portion with his hands, like all the inhabitants of the interior.

Yamina is a considerable town with a well-furnished market; the town is situated on the south side of the Niger. Its commerce surpasses in many respects that of Sananding; it supplies a great portion of the inhabitants of the western desert with
merchandise. Communication is facilitated by a large backwater, which separates from the river at this town and takes a northerly course as far as the wealthy town of Dymia, thus establishing an extensive inland navigation.

The description I have given in these few pages of Bambarra will give a fair idea to the reader of the commercial importance of this country, and the social condition of the inhabitants. It will naturally strike one with astonishment to find a country isolated from Europe so far advanced in civilization as Bambarra. If it were once opened to European trade and civilization, there can be little doubt but that the inhabitants would rise to a high state of social culture, and their influence would be felt with beneficial effect by other African states.
MASSINA.

CHAPTER VI.

General Description of Massina—Timbuctoo—Kabara—Hamda Allhi—Gundam—Yowaru—Bambarra.

The Empire of Massina has been formed out of the ruins of the vast empires of Songhay and Ghanata, conquered in the seventeenth century by the powerful Fellatahs, who are now dominant in these regions. Massina is composed of several small states, ruled by governors, who collect taxes and administer justice, and sometimes teach their people the Koran. These are appointed by the king, who resides in Hamda Allhi, the capital city of his empire. The governors sometimes undertake expeditions into the pagan states to capture slaves for their master, who disposes of them to the Morocco and the other slave-dealers. Massina is bounded by
The Flooding of the Sahara.

Songhay on the east; on the west by Tombo and Bambarra; on the north by Baghena, and other small states of Sahara; and on the south by Gando: the whole region forming a crescent on the Niger.

Massina is favoured by having the Upper Niger, with its many backwaters and tributaries, on the north; while to the south it is traversed by several rivers which feed the Lower Niger. Most of the people engage in nothing else but agriculture. For centuries their Mohammedan civilization has brought the greatest part of the country under cultivation, and the necessaries of life are produced in abundance. Cattle are reared in great numbers, and fruit of every kind grows spontaneous. Gold is gathered on the banks of the rivers. In some districts the people smelt iron, and erect furnaces similar to those of our own country. The iron thus manufactured is converted into various useful articles. The whole country is thickly populated, and the towns and villages are numerous. The houses generally are built of clay, with considerable taste. The women wear trousers
Mohammedan Civilization.

Furnace for smelting iron.

like the men; they also wear copper rings on their ankles and arms. They are also great smokers. Markets are held in every important town for the sale of the native produce as well as foreign goods, which consist chiefly of clothing of European manufacture. Asses are generally employed for the transport of goods. The horses, of which they have a good breed, are chiefly used for military purposes. Most of the people have embraced Islamism, and the Koran is the only book that is taught in their schools. Those of the people who are still pagans live in the mountains. The men seldom marry more than one wife, who is well-treated; she may go about

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unveiled, and enjoys her freedom. They are strictly moral, but should a woman commit adultery she is stoned to death by the people.

The country is hilly, and in some places mountainous. The most important and interesting range of mountains is in the north, and called the Hombori; but in no part rising above 1000 feet in height. These are broken into perpendicular detached blocks, whose castellated rocks at a distance appear like towers raised by the hand of man. Many parts of the country are covered with dense forests; every kind of vegetation springs up wherever there is moisture. The most important cities of Massina are Timbuctoo, Hamda Allhi, Kabara, Gundam, Yowaru and Bambarra.

Timbuctoo, the queen of the desert, the city of romance, and the Medina or holy city of Soudan, was founded by the Berbers in A.D. 1176. It is situated on a plain, about six miles north of the Niger, and only a few feet above the average level of the river. In the rainy season when the Niger inundates the surrounding country boats can come up
The City of Timbuctoo.

by a channel in the west to the gates of Timbuctoo. The city forms a triangle with its base towards the river; whilst the projecting angle points north, having for its centre a grand mosque, that of Sankora, built centuries ago by a rich and holy woman. The size and grandeur of this mosque, with its lofty towers, impart an imposing appearance to this city. Timbuctoo at the height of its greatness was much larger than it is at present; the walls by which it was surrounded formed a rampart, but it was destroyed in 1826. The circumference of the city at the present day is not more than three miles. The inhabitants number about 20,000, and are composed of several tribes, who live in separate quarters of the town. The town is laid out in regular streets, unpaved, but mostly consisting of sand and gravel, with a gully in the middle. There are about 1000 houses in the town built of clay; some of them are two stories in height, and exhibit considerable architectural adornment, and are kept in good repair. There are several squares and open spaces in the town used for
markets. There are about 200 huts of matting in and around the town, which are occupied by the poor and slaves. There are also six mosques, and these form the only public buildings of importance. The mosque of Zangereber, or the great mosque, is the largest; that of Sankora being next in size. Zangereber is an immense edifice of stately appearance. The principal building includes nine naves, of different dimensions and structure. Its length is 236 feet, by about 212 feet wide. A lofty tower stands in the centre. The inscription over the principal entrance to this building says that it was built by Mansa Musa, king of Melle, in the fourteenth century. Mosque Sidi Yahia was built at the expense of a Kadi of this city. For the last five centuries Timbuctoo has been known to Europeans. Fabulous reports of its wealth, importance and magnificence have been circulated and readily believed. These vague notions and the course of the Niger were the subject of a prize poem by Mr. Tennyson in 1848, for which he obtained the Chancellor’s medal. The poet pictures himself as borne
by a spirit to a height near the city; the spirit thus addresses him:

Child of man,
Seest thou yon river whose translucent wave,
Forth issuing from the darkness, windeth through
The august streets of the city, imaging
The soft moorsons of her tremulous domes.
Her gardens, frequent with the stately palm,
Her pagods, hung with music of sweet bells,
Her obelisks of ranged chrysolite,
Minarets and towers. Lo! here he passeth by,
And gulfs himself in sands as not enduring
To carry through those waves which bore
The reflex of my city in their depths.

Major Laing visited Timbuctoo in 1826, but Monsieur Caillie was the first who gave a trustworthy report of the town; he passed through it in 1828. It was afterwards visited by Dr. Barth in 1854. He was the last European who visited Timbuctoo. This city has never been the capital of an empire, but a provincial city, and the first and the principal seat of learning for Soudan. It has produced a number of great men, who devoted their whole lives to learning. It is related that the usurper, Mohammed
Bankore, when on his march to Gogo to fight Askia, was induced by the Kadi of Timbuctoo to give up his ambitious designs for a quiet course of study, to the great astonishment of his army, who expected to be led by him to power and wealth. Ahmed Baba, a learned historian, resided at Timbuctoo, and there composed a valuable history of Soudan. He is said to have had a library of 1600 volumes of manuscripts. Timbuctoo did not rise to commercial importance until the fifteenth century, when the ancient empire of Ghanata was broken up; the trade was then removed from its capital, Walata, to Timbuctoo. Many of the surrounding nations were anxious to hold this city, and several bloody battles have been fought to gain possession of it; but in 1846 a treaty was made between the Fellatahs and the Berbers, in which it was agreed that the city should be tributary to the chief of Massina, but without a military garrison. The government in Timbuctoo is in the hands of two mayors. The men do not marry more than one wife. The wives are well treated. When they get married, it is
customary to remain three days at home after the marriage ceremony.

It has been supposed that Timbuctoo was a considerable manufacturing city: but this is not so. The only manufacture is in leather-work, such as provision and luggage bags, cushions, small pouches for tobacco, and gun-cases, as shown by the engravings on preceding page. These are very neat and made mostly by Berber women. Blacksmiths are also to be found in this city; they make knives and other useful articles. The clothing of the inhabitants is imported from Kano, Sansanding, and from England. Shirts are sold in Timbuctoo, made in Sansanding from English calico, and richly ornamented with coloured silk. The people of Timbuctoo are experienced in the art of adorning their clothing with a fine stitching of silk. All their foreign merchandise is brought by caravans from Morocco, Algeria, and Tunis; from this city they are distributed throughout a great part of Soudan. A large number of merchants reside permanently in Timbuctoo to carry on the foreign trade. The
principal articles of European manufacture are red cloth, coarse coverings, sashes, looking-glasses, cutlery, tobacco, bleached and unbleached calico. All the cutlery is of English make. Tea, sugar, and tobacco form the standard articles of consumption. The price of six pounds of sugar and half a pound of tea is 9s. 6d.; the same quantity would cost in England 3s. Arab cloaks with a hood are sold here in large quantities. There is also a great trade in salt, which is dug from the mines in El Juf. I describe these mines in another portion of this book. Very handsome gold ornaments are worn by the people of Timbuctoo; they are made at Walata, which is still celebrated on this account. The Kola-nut is another article of commerce. It is brought to this market by the merchants from the neighbouring country where it is gathered; it forms a good substitute for coffee. The principal food of the people consists of bread and milk in the morning, millet with a little meat seasoned with sauce at about two in the afternoon, and fruit in the evening. Pigeons are consumed in large quantities, and are considered a
dainty dish; they are sold at the rate of 300 for 4s. 2d. The commercial importance of Timbuctoo is very great, and may be summed up in the language of Dr. Barth, who resided in this city for eight months: "This much is certain: an immense field is here open for European energy to revive the trade which, under a stable government, formerly animated this quarter of the globe, and which might again flourish to a great extent; for the situation of Timbuctoo is of the highest importance, lying as it does at the northern curve or elbow of the great river of Western Africa, which in an immense sweep encompasses the whole of the southern half of North Central Africa, including countries densely populated, and of great productive capabilities, which it is most desirable to open for European commerce, while the river itself affords great facilities for such a purpose. There will always be in this neighbourhood a great commercial entrepôt as long as mankind retain their tendency to international intercourse and exchange." Dr. Barth says, moreover, that if once a direct
commercial communication was established with Timbuctoo, the whole of this part of the world might be subjected to a wholesome organization; he also says that the most wealthy families residing at Timbuctoo are very partial to the English, and would hold out every encouragement for opening commercial relations. Timbuctoo forms the most convenient point of intercourse with Europe, as may be seen by reference to the accompanying map, for goods can be distributed with ease from this city throughout the states of Soudan; the facility for carriage being great, since the Niger and its tributaries are navigable from Kabara (the port of Timbuctoo) for thousands of miles in various directions.

Kabara is a small town on the banks of the Niger; it is the port of Timbuctoo, and was once of great importance, it being the harbour where the fleet used to anchor. There is still an active shipping trade carried on between this port and the trading towns on the Niger. The population is about 2000.

Hamda Allhi is the capital of Massina, where the Sultan and his ministers reside. It is
situated on the southern bank of the Niger. It is a city of considerable importance for trade. The population is about 20,000.

Gundam is a walled town; it has suburbs on the east and west sides. The population is about 10,000 in number, composed of mixed tribes. The town is situated on the north bank of an arm of the Niger, a branch of which runs from Gundam to Kabara. Almost all the surrounding country is covered with water when the inundation of the Niger takes place.

Yowaru is situated on the northern bank of the Niger. It consists entirely of reed huts. The population is estimated at 20,000. The place is of great commercial importance, being in direct communication with Timbuctoo, Sego, and Walata. The town pays an annual tribute of 4000 head of cattle to the Sultan, and is the seat of a governor.

Bambarra is situated in front of a chain of hills. The town consists of clay houses. Many of the wealthy people of Timbuctoo have farms in its neighbourhood where they keep a large stock of cattle. The great
importance of this place is that transport is easy on account of the immense inland navigation formed by many backwaters and branches of the Niger.
SONGHAY AND GANDO.

CHAPTER VII.

General Description of Songhay and Gando—Gogo—
Ghergo—Boussa—An Account of Park's Death—
Borgu—Yariba—Egga—Gando—Say.

SONGHAY is situated on the upper portion of
the eastern arm of the Niger; it is sur-
rounded almost on every side with states
hostile to its very existence—states which at
one time were provinces of this ancient
empire. It is bounded on the west by Ma-
sina, on the south by Gando and Sokoto, on
the east and north by the Tawareks. Its early
history, like that of almost all nations, is lost
in obscurity. The fragmentary records pre-
served in the archives of Gando bring the
history down to the seventh century; but,
according to tradition, Songhay was founded
at a very early period by Egyptians, who are
said to have been the first to open commercial relations with Western Soudan. The whole history of Songhay points to Egypt, and it was doubtless from the reports of Egyptian merchants that Herodotus believed the Upper Niger to be a branch of the Nile, its course being north-east. There is a remarkable tradition that Songhay was visited by one of the Pharaohs, and the people point out to this day the ruins of the city where the illustrious monarch resided during his sojourn here. The people of Songhay, like the Egyptians, bestow great care on their dead. Those among their kings who die in the remotest part of the empire are transported with the greatest trouble to the capital, to be buried with due ceremony. This respect for the dead seems to have been handed down to them from the remotest antiquity. It is remarkable that Egyptian civilization should have established itself on the eastern arm of the Niger, while Numidians or Carthaginians, about the same period, founded an empire on the northern arm of the same river, and that these states should have contended for
supreme power in these regions for centuries, and that each should possess it in turn. It is difficult to trace the exact date when the Mohammedan religion made its appearance in this part of Soudan; but it is recorded that in the early part of the eleventh century the king of Songhay, and many of the people, embraced Islamism, and a law was passed by which it was enacted that none but a Mohammedan should ascend the throne, thus firmly establishing the religion of Arabia on the banks of the Niger. The emblems of religion and royalty, consisting of a ring, sword, and a Koran, said to have been a gift from Egypt centuries ago, are to this day handed with great solemnity to every king who ascends the throne of Songhay. Songhay, after passing through numbers of revolutions, reached the summit of its greatness in the seventeenth century, under the rule of the usurper Askia. This great conqueror, after seating himself firmly on the throne of Songhay, extended his empire by conquest far and wide. He ruled from Houssa to the borders of the Atlantic, and from the pagan country of Mose in the
12° northern latitude as far as Tawat to the south of Morocco. He governed the tribes he subdued with justice and equity, causing well-being and comfort to spring up everywhere within the borders of his vast dominions. To improve the breed of horses for cavalry, he imported a large number from Barbary, and it is said that he could bring as many as 140,000 troops into the field, the cavalry troops wearing coats of mail and brass helmets. But the evils which beset all nations, especially those ruled by despots—namely, factions—ruined the powerful empire of Songhay, and reduced its borders to a narrow strip of country on the eastern arm of the Niger. The physical character of the country is similar to Massina, but in some parts it has a more barren appearance. Agriculture is the chief employment of the people. Various kinds of grain are produced in great abundance; cotton and tobacco of superior quality are also grown to a considerable extent. The people generally dress in closely-fitting shirts and trousers made of a broad kind of cotton of coarse texture. The head is
generally encircled with a turban of the same material. Some of the inhabitants engage in trade, and there are boats continually passing between the various ports on the river with home and foreign produce. Gogo and Ghergo are the principal towns of Songhay.

Gogo, the capital of Songhay, is situated on the eastern bank of the Niger; it is surrounded with magnificent groves of tamarind, date, palm, silk, cotton, and sycamore trees. It was founded about A.D. 893, and was among the first towns visited by Arab traders. In former times it had a circumference of about six miles, but it is now considerably reduced. The town has about 400 houses, and a population of about 8000. The mosque in which the great conqueror Haj Mohammed is interred is the largest building in the town; it has two towers, surrounded by a wall of about fifty feet in height. The town rose to great commercial importance in the eleventh century; a large trade being carried on here in European merchandise by the Arab traders from the north.

The town of Ghergo is situated on the
northern bend of the Niger; it is a place of considerable antiquity; according to tradition, it is seven years older than Timbuctoo. It was one of the centres of life in these regions in the early dawn of historical record, but, on the decline of the Songhay empire, its trade, which was considerable, has decayed. The present population cannot be much more than 4000. The people raise a good deal of rice and tobacco about the town, and there is also excellent pasture for cattle in its vicinity.

The trade of this and other towns of Songhay would soon increase if the country was more settled than it is at present. The towns are well situated for commerce, being in the centre of a vast population, to whose industry and energy the carefully cultivated fields bear the best testimony. This country has also the advantage of having the noble Niger passing through its whole length, thus forming a natural highway by which goods can be conveyed to any point that may be desired with the greatest ease and convenience.
The empire of Gando, formerly a part of Songhay, is now an independent state of considerable power, and was created in the early part of the nineteenth century by Othman, the religious reformer. In his zeal for his religion he subdued vast regions with fire and sword. Before his death he divided his wide dominions, giving Sokoto to his son Bello, and Gando to his nephew.

Gando comprises a number of wealthy states, all lying along the southern portion of the eastern arm of the Niger and its branches. It is divided into eight provinces, each ruled by a governor or king appointed by or subject to the Sultan of Gando. Gando is bounded on the south by Guinea, on the east by Sokoto; on the north by Songhay, and on the west by Mori and Wangara. The states of Borgu and Yariba are now subject to the Sultan of Gando, having been conquered about forty years ago by the powerful Fellatahs.

Borgu, before it passed under the rule of the Sultan of Gando, comprehended four smaller states. Boussa is the chief town of this province; it is situated on an island
formed by the Niger, of about three miles long, and a mile and a half broad. The country immediately adjoining the town is bold and rocky, which renders Boussa a place of strength, as its walls extend to and are united with the extremities of a rocky precipice which skirts the western branch of the river. The houses, which are well built, are enclosed in gardens which are well cultivated. The land on the island and in the country round is exceedingly fertile and is carefully cultivated. Corn, yams, and cotton are produced in abundance.

Some short distance below Boussa, the Niger is confined within a narrow channel formed by perpendicular banks of about fifty feet in height. Here it flows with a current of two and a half knots an hour, but lower down the water rushes with great force between porphyritic rocks which extend for some distance to the village of Comie, where the Niger again becomes a broad stream. This is the great ferry of all the caravans to and from Sokoto and other northern states.
It was at Boussa that Mungo Park closed his career. It appears, from the statement of an eye-witness, that the great traveller was taken for a conqueror, and the natives thought that in killing him they were getting rid of an enemy. When his boat came down the river, it happened unfortunately at the time when the Fellatahs were at war. The Sultan of Boussa, on hearing that the persons in the boat were white men, and that the boat was different from any that had ever been seen before, with a house at one end, called his people together from the neighbouring towns, attacked and killed the party, not doubting that they were the advanced guard of the Fellatah army, then ravaging Soudan under the command of Othman, the father of the present ruling family of Sokoto. They say that there were two white men in the boat and two black; one of the white men was tall, with long hair; and that they fought for three days before they were killed. The people in the neighbourhood were very much alarmed, and great numbers fled to the surrounding countries, thinking that the Fel-
latahs were certainly coming among them. Great treasure was found by the natives in Park's boat, but every one who ate of the meat that was found in her died. It is also stated that a great pestilence reached Boussa at the time of this sad event, swept off the king and most of the inhabitants, particularly those who were concerned in this transaction. The remainder, fancying it was a judgment of the white man's God, placed everything belonging to the Christian in a hut, and set it on fire.

The people of Borgu, when purely pagan, never prayed but when they were sick or wanted something, and cursed the object of their worship if their petitions were not granted; but, since their incorporation with the Gando empire, Islamism has made progress and many of their superstitions have disappeared.

Yariba is the most southern province of Gando. When it was an independent state, horrible customs were practised, similar to those in Dahomey. When a king died, four of his chief women and many favourite slaves
and others were obliged to swallow poison, given by fetish-men in a parrot's egg; should this not take effect, each person was provided with a rope to hang themselves with. If a king should not die by a natural death, there was no one sacrificed for him.

Their religion consists in the worship of a god, to whom they offer sacrifices of horses, cows, sheep, goats, and fowls. At the yearly feasts, the animals are sacrificed at the fetish-house and a little of the blood spilt on the ground; the animals are then cooked, and the king and all the people partake of the meat, drinking copiously of the country ale. It depends on the will of the priest whether a human being or an animal is sacrificed; if the former, it is always a criminal, and only one. The usual spot where the feast takes place is a large open field before the chief's house, under wide-spreading trees, where there are two or three fetish-houses. These customs are fast disappearing since Mohammedanism was introduced.

The inhabitants are a mild and peaceful
race; their lips are thin, and their noses rather inclined to the aquiline shape. The men are well made and have an independent carriage. The women are almost invariably of a more ordinary appearance than the men, owing to their being exposed to the sun, and to the drudgery they are obliged to undergo, all the labour of the land devolving upon them.

The cotton-plant and indigo are cultivated to some extent; and they manufacture the wool of their sheep into good cloth, which is bartered for rum, tobacco, European cloth, and other articles: they also trade in slaves.

The chief city of this province is Egga, which is built on the sloping side and round the base of a small range of granite hills, which, as it were, form the citadel of the town. They are in fact stupendous blocks of grey granite, of the softest kind, some of which overhang the summits in a frightful manner, while others, resting on small bases, appear as if the least touch would send them down into the valley beneath. The
The soil on which the town is built is formed of clay and gravel mixed with sand, which has obviously been produced from the crumbling granite. The appearance of these hills is that of a mass of rocks left bare by the tide.

A belt of thick wood runs round the walls, which are built of clay, and about twenty feet high, and surrounded by a dry ditch. There are ten gates in the walls, which are about fifteen miles in circumference, of an oval shape, about four miles in diameter one way, and six miles the other—the south end leaning against the rocky hills, and forming an inaccessible barrier in that quarter. The chief’s houses and those of his women occupy about a square mile, and are on the south side of the hills, having two large parks, one in front and another facing the north. They are all built of clay, with thatched roofs. The posts supporting the verandahs and the doors of the chiefs and the priests’ houses are generally carved in bas-relief with figures representing the boa killing an antelope or a hog, or of processions of warriors attended
by drummers; the latter are by no means meanly executed.

There are seven different markets, which are held every evening, being generally opened about three or four o'clock. The chief articles exposed for sale are yams, corn, plantains, bananas, vegetable butter, sweetmeats, goats, fowls, sheep, and lambs; also cloth, and various instruments of agriculture. The population of Egga is estimated at about 20,000 souls.

Gando is the capital of the empire of the same name. The interior of this place is not without its charms, the whole of the town being intersected from north to south by the broad and shallow bed of what was a torrent, which now exhibits fine pasture-grounds of fresh succulent herbage, skirted on both sides by a dense border of exuberant vegetation, here much richer than in Sokoto or Wurno, and only surpassed by Kano.

The rains are plentiful in Gando, causing quite an exceptional state in the productive powers of the soil, and to this circumstance we have partly to ascribe the fact that
a large quantity of very fine bananas are grown here. The onion of Gando is remarkable for its size and quality compared with all the neighbouring districts; and it is well for the traveller, in whatever direction he intends to go, to lay in a supply of this wholesome article. As a central place of commerce it is well situated.

The people of Gando have applied themselves with industry to supplying their own wants of cotton cloth; and their cotton strips are of first-rate quality. Their dyeing, on the contrary, is coarse; they seem to be unable to give to their cloth that lustre which so eminently distinguishes the manufacture of other towns in Soudan; nevertheless, this cloth is in great demand. A good deal of iron is dug by the people of this town, which they find at a depth of about twelve feet from the surface. A coarse kind of silk for adorning dresses is much esteemed by these people. The Sultan of Gando resides chiefly in this town, and is said to be a fanatical Mohammedan, and will not receive any visits from Christians.
The Town of Say.

Say forms the frontier town between Gando and Songhay, situated on the western bank of the Niger. It is scarcely visible from a distance, owing to the exuberant vegetation by which it is surrounded. It has a population of nearly 8000, and is encompassed on three sides by a low rampart, the side towards the river being unprotected. It is a place of commercial importance, with a harbour, and an inspector manages the shipping. A large number of boats are continually engaged in making voyages from Say with merchandise to several towns on the river. The boats used are about forty feet long by five feet broad. The supply of European clothing is not great, on account of the difficult mode of transit; but if direct communication were established with Timbuctoo, goods could then be sent from that city by water to the remotest parts of Soudan, and each of these towns which we have briefly described, with others we have not had space to mention, would become marts for the surrounding countries.

The town of Gulumbe is situated close to
the southern border of a valley to the west of Gando. Yams and cotton are grown extensively in the surrounding country; the fields are carefully fenced, affording rich pasture-grounds for their cattle. Clumps of banana and gonda constitute the chief ornaments of the landscape. The town is surrounded by a wall and densely inhabited.
SOKOTO.

CHAPTER VIII.
General Description of Sokoto—City of Sokoto—Kano—Katsena—Adamawa—Yoto.

The Empire of Sokoto is situated in the centre of Soudan, and forms the largest and perhaps the most powerful state in that country. It was founded about the year 1802 by Othman. When this remarkable man began his career as a reformer, he was vanquished at almost every encounter; but the fanatical zeal of his followers, whom he continually inspired with fresh energy by his religious songs, was so great that he gradually overcame all obstacles, and at length succeeded in laying the foundation of a vast empire, which he divided at his death, giving Sokoto to his son Bello and Gando to his nephew. Sokoto is bounded on the east by Bornu, on the west by Songhay and...
Gando, on the south by pagan states, and on the north by Agades. It is divided into several provinces, each ruled by a governor appointed by the Sultan. This country is not mountainous, except towards the south, where Mount Alantika rises to a height of about 10,000 feet above the sea. In the north the country is said to have a general elevation of about 1500 feet. Sokoto is well watered by several rivers which join the eastern arm of the Niger. The country is fertile, well cultivated, densely populated; covered with immense forests of valuable timber; and corn, fruit, and vegetables of every kind are produced in great abundance. Enchanting scenery, numerous and populous cities, a busy population, engaged in various branches of industry, meet the eye of the traveller throughout the greatest part of the vast empire of Sokoto. The most important towns are Sokoto, Kano, Katsena, and Yolo.

Sokoto, the capital, is situated on the top of a low hill, on the north bank of one of the tributary rivers of the Niger. It was founded about the year 1805. The town is surrounded
The City of Sokoto described.

by a wall about thirty feet in height. It has twelve gates, which are regularly closed at sunset. Sokoto is laid out in regular well-built streets. It has five large mosques, besides several other places for prayer. There is a spacious market-place in the centre of the city, and another large square in front of the Sultan's palace. The dwellings of the principal people are surrounded with high walls, which enclose numerous coozes and flat-roofed houses built in the Moorish style, whose large water-spouts of baked clay, projecting from the eaves, resemble at first sight a tier of guns. The people are generally engaged in weaving, house-building, leather-dressing, shoe-making, and manufacturing iron implements; others bring firewood to the market for sale. Those of the people who are employed in raising grain and tending cattle, of which the Fellatahns have immense herds, reside in villages in the suburbs of the city. The principal people keep a number of slaves. It is customary for private individuals to free a number of slaves every year, according to their means, during the great feast after the
Rhamadan. These, however, do not, as might be supposed, return to their native country, but continue to reside near their old masters, still acknowledging them as their superiors, and presenting them annually with a portion of their earnings. The market of Sokoto is well supplied with all the necessaries of life, which are sold at very low prices. On market days there is great animation in the town; buyers and sellers from all parts resort to it in large numbers. Horses for riding, cattle for slaughtering, oxen for burden, are the principal animals offered for sale. A large business is done at these fairs in native manufactures, such as bridles, in large quantities, the workmanship of which is famous throughout Soudan; articles of leather, a branch of manufacture in which these people excel, especially in leather bags and cushions, for the leather dressed and prepared here is soft and beautiful. There is also a large quantity of iron sold in the market. The demand for this article is considerable on account of its excellent quality. A considerable foreign trade is carried on at Sokoto. The principal
articles of import are cotton, woollen cloth, brass and pewter dishes, silk, attar of roses, spices, and beads. Slaves in large numbers are both imported and exported. The population of Sokoto, which is chiefly composed of Fellatahs, is estimated at 80,000.

Kano, the second city of Sokoto in importance, is situated in a well-populated and fertile province of the same name. The houses are built of clay, and those inhabited by the natives have conical-shaped roofs; but the houses occupied by the Arabs are flat, many of whom sleep on these terraces.

The city of Kano presents the most animated picture of a little world in itself, so different in external form from anything that is seen in European towns, yet so similar in internal principles. Here a row of shops, filled with native and foreign produce, with buyers and sellers in every variety of figure, complexion, and dress, yet all intent on their little gain, endeavouring to cheat each other; there a large shed, like a hurdle, full of half-naked, half-starved slaves, torn from their native homes, from their wives or husbands,
from their children or parents, arranged in rows like cattle, and staring desperately on the buyers, anxiously watching into whose hands it should be their destiny to fall. In another part may be seen all the necessaries of life, the wealthy buying the most palatable things for his table, the poor stopping and looking greedily upon a handful of grain. Here a governor, in rich and gaudy clothes, mounted upon a horse richly-caporisoned, and followed by his idle and insolent slaves. Here a poor blind man, groping his way through the multitude, and fearing at every step to be trodden down. Here a yard, neatly fenced with mats of reeds, and provided with all the comforts which the country affords; a clean and snug-looking cottage, the clay walls nicely polished, a shutter of reeds placed against the low, well-rounded doors, and forbidding intrusion on the privacy of life; a cool shed for the daily household work; a fine spreading fruit-tree, affording a pleasant shade during the hottest hours of the day; or a beautiful gonda-tree, unfolding its large and feather-like leaves
above a slender, smooth, and undivided stem; or the tall date-tree waving over the whole scene. The matron, in a clean black cotton skirt wound round her waist, her hair neatly-dressed, busy preparing the meat for her absent husband, or spinning cotton, and at the same time urging the female slaves to pound the corn; the children naked, and many playing about on the sand, or chasing a straggling, stubborn goat; earthenware pots and wooden bowls, cleanly-washed, standing in order. Further on, a dashing Cyprian—homeless, comfortless, and childless, but affecting merriment, or forcing a wanton laugh—gaudily ornamented with numerous strings of beads around her neck, her hair fancifully dressed and bound with a diadem, her gown of various colours loosely fastened under her breasts, trailing behind in the sand. Now a busy "marina," an open terrace of clay, with a number of dyeing-pots, and people busily employed in various processes of their handicraft. Here a man stirring the juice, and mixing with indigo some colouring wood in order to give
it the desired tint; here another drawing a shirt from the dyeing-pot, or hanging it up on a rope fastened to the trees. There two men beating a well-dyed shirt, singing the while, and keeping good time. Further on a blacksmith, busy with his rude tools in making a dagger, which will surprise, by the sharpness of its blade, those who feel disposed to laugh at the workman's instrument, a formidable spear, or the more estimable and useful instrument of husbandry. In another place, men and women use an ill-frequented thoroughfare to hang up along the fences their cotton-thread for weaving. Close by a group of indolent loiterers, lying in the sun and idling away the hours. Here a caravan from Gonja, arriving with the desired kola-nut—chewed by all who can spare anything from their daily wants; or a caravan laden with natron, starting for Nupe; or a troop of dealers going off with their salt for the neighbouring towns; or some Arabs leading their camels, heavily laden with the luxuries of the north and east. There a troop of gaudy, warlike horsemen, galloping towards
the palace of the governor, to bring him the news of a new inroad of his enemies. Everywhere human life in its varied forms. The most cheerful and the most gloomy seem closely mixed together. Every variety of national form and complexion may be seen: the olive-coloured Arab; the dark Kanuri, with his wide nostrils; the small-featured, light, and slender Ba-Fellanchi; the broad-faced Mandingo; the stout, large-boned, and masculine-looking Nupe female; and the well-proportioned and comely Ba-Houshi female.

The authority of the governor of Kano is not absolute; appeals may be made from his court to the Sultan at Sokoto. He is assisted in the government by a council, the president of which has often greater influence than the governor himself. The army of the province consists of 7000 horse, and more than 20,000 foot.

The population of the town of Kano is estimated at 30,000, but during the trading season it reaches about 60,000. The province has a population of about half a million.
Kano has a considerable manufacturing industry; nearly every one is engaged in cotton-weaving, dyeing, tanning, and other branches of trade. The cotton of this town is in great demand throughout Soudan. The accompanying woodcuts represent a sandal and a box. The sandals are made in large numbers, and sent annually to North Africa, where they are very much esteemed—their neatness and quality being remarkable for the low price at which they are sold. A good pair can be purchased for the value of twopence. Tanned hides, red sheep-skins, dyed with a juice extracted from the holcus, are sent to Tripoli in considerable quantities. The people of Kano manufacture silk from a peculiar kind of silk-worm which lives on the tamarind-tree. This silk is used for ornamenting shirts and other garments. Richly orna-
mented leather pockets, made by Arab workmen, are much sought after, and also boxes made of the same material. Living is astonishingly cheap in Kano; it is said that a whole family can live comfortably and pay the rent of a snug little cottage for the small sum equal to 5l. a year! It would be difficult to make an exact estimate of the yearly value of the export and import trade of Kano, but it certainly cannot be less than 150,000l.

Katsena is the third province of Sokoto; it is situated on the direct caravan route to Agades. Although small in extent, it is said to be the finest country of Soudan. It has a general elevation of about 1500 feet above the sea. It enjoys the advantage of being well watered and well drained—the chain of hills which diversifies its surface sending down numerous rapid streams, so that it is made more salubrious than any other region of Soudan.

Its productions are varied and rich; the banana and the gonda-tree are found in many favoured spots, while the parkin, the tamarind, and the butter-tree are the most common
everywhere, and very often form thick clusters. Sweet potatoes are produced in great abundance. Here the breadfruit-tree, yielding an immense supply of food for rich and poor; there the kania, with its rich dark-tinged foliage, and the butter-tree exhibiting the freshest and most beautiful green. There the marke, more airy, and sending out its branches in more irregular shape, with light foliage; young tamarind-trees rounding off their thick crown of foliage till it resembles an artificial canopy spread out for the traveller to repose in its shade; while above all the tall and slender goubas unfold their fair crowns just as to protect the eye of the delighted wanderer from the rays of the morning sun, and allow him to gaze undisturbed on the enchanting scenery around.

Indigo-plants and tobacco-fields are common throughout Katsena.

Birds of numberless variety and colour make the densely luxuriant groves their abode, playing and warbling about in the full enjoyment of their liberty; now and then a herd of cattle may be seen dispersed over
the rich pasturage grounds—all of white colour, and the bulls provided with a large fat hump, hanging down on one side.

The town of Katsena, which is the seat of a governor, was in former times much larger than it is at present. It is surrounded by a massive wall about thirty feet in height, and about thirteen English miles in circumference. The houses are built of clay, but do not cover above a quarter of the space enclosed by the wall.

The population is estimated at 13,000; but when Katsena was the seat of a king, the population is said to have reached 100,000. The population of the province is given at about 300,000. A good deal of trade is carried on in the town; as many as 500 camels, laden with European merchandise, visit it at one time.

Adamawa is the most southern province of Sokoto, and is certainly one of the finest countries of Soudan—irrigated as it is by numerous rivers, among which the Chadda and the Faro are the most important. Its surface is also diversified with hill and dale.
Towards the north the country is generally flat, but southward it gradually rises from 800 feet to an elevation of about 1500 feet, and is broken by separate hills or extensive groups of mountains, among which the detached Mount Alantika reaches a height of nearly 10,000 feet. In some parts of the country hot-springs are found.

The grain most common in Adamawa is called the *holcus sorghum*. Some parts of the country produce hardly anything but yams, which form the daily and almost sole food of the inhabitants. A tolerable quantity of cotton is cultivated, but indigo is very rare.

Elephants and rhinoceroses are often met with; the wild bull is common throughout this country. The most singular animal seems to be the ayu, which lives in the river, and in some respects resembles the seal; it comes out of the river in the night, and feeds on the fresh grass growing on the banks.

A great variety of fruit and other trees are met with throughout the country. Nature has thus enriched Adamawa with
everything that man may desire or require for his happiness; but cruel man has turned what might be a paradise into a den of slave-hunters. The whole surrounding country may be looked upon as a vast hunting-ground for the capture of innocent natives. This traffic has attained gigantic dimensions. Several governors of districts have thousands of slaves, who cultivate the soil for the benefit of their masters. Even the head slaves of the great slave-owners have frequently as many as 1000 slaves each under their command. The governor of the country receives in tribute from petty chiefs as many as 5000 slaves, which are mostly captured in raids for the purpose, or in the wars which are constantly devastating certain regions in Central Africa for the supply of the northern markets.

Yolo is the chief town of the province of Adamawa; it is situated on the River Chadda, some 350 miles above its junction with the Niger. The town is a large open space, consisting, with few exceptions, of conical huts surrounded by spacious court-
yards, and even by corn-fields. The houses belonging to the governor are built of clay. There is one mosque, which is the only public building worth noticing. It is a flat, oblong building, or rather hall, enclosed with clay walls, and covered with a flat thatched roof, a little inclined on one side. The town is certainly not less than three miles long from east to west, but the courtyards of each house and hut occupy such a large space that the population cannot be more than 12,000 souls.

There are several other unimportant provinces belonging to Sokoto, which I pass over without notice, my space being limited; enough, however, has been written to enable the reader to comprehend the great commercial importance of the empire of Sokoto—it having an energetic and industrious population eager for trade.
BORNÚ.

CHAPTER IX.

General Description of Bornú—History—Alameen el Kanemy—Kuka—Kanem—Zinder—Gummel—Musgu.

Bornú is bounded on the east by Lake Chad and the River Shari, which separates it from Bagirmi; on the south by Adamawa and extensive tracts of unexplored country; on the west by Sokoto, and on the north by the Sahara. Bornú was once one of the most extensive and powerful empires of Soudan; it embraced the whole country as far north as Fezzan, and as far west as Wadan. Its decline commenced in the seventeenth century, and continual wars with the Fellatahs who founded Sokoto have reduced it to a comparatively small state. On the early history of Bornú the ancient records are not clear.
It is stated that from the foundation of the kingdom to A.D. 800, fifty-eight kings had sat in succession on the throne of Bornu. The Bornu dynasty is of Berber origin. The government is a kind of aristocracy. The Sultan is assisted by a council, composed of twelve chiefs, without whose assent nothing of importance can be undertaken by the king. The eldest son succeeds to the throne. It appears that the Sultans of Bornu are always engaged in wars, endeavouring to gain possession of the territories they have lost. Achmet Ali, who ruled in 1803, contended for several years against the rising power of the Fellatahs of Sokoto, but was at length overcome, and deprived of a great part of his possessions. The Fellatahs, however, did not long retain the country they had conquered. Shortly after these disasters to the Bornu empire, Sheikh Alameen el Kanemy formed the project for delivering the country from the bondage into which it had fallen. This wonderful man was born in Fezzan, of Kanambu and Moorish parentage. After visiting several countries he proceeded to Kanem as
Sheikh of the Koran, where, by the correctness of his life and the benevolence of his disposition, he made himself greatly respected and beloved. The miracles and cures which he wrought by writing charms became the theme of the surrounding country; in fact, he became invested with the mysterious influence of a marabout. Having stirred up the people of Kanem to assist him, by a well-planned tale of having been called by a vision to the patriotic enterprise, he made his first campaign with scarcely 400 followers, at the head of whom he defeated an army of the Fellatahs nearly 8000 strong. This victory he followed up with great promptitude and resolution, and in less than ten months he had been conqueror in forty different battles. Nature bestowed on him all the qualifications for a great commander. An enterprising genius, sound judgment, engaging features, with a demeanour gentle and conciliating, and so little of vanity was mixed with his ambition, that he refused the offer of being made Sultan, and, placing Mohammed, the brother of Sultan Achmet, on the throne, he, first doing
homage himself, insisted on the whole army following his example. Such a commencement was extremely politic on the part of the Sheikh, but his aspiring mind was not calculated to rest satisfied with such an arrangement. The whole population now flocked to his standard, and appeared willing to invest him with superior power, and a force to support it. One of their first acts was to furnish him with twenty horses per day until a regular force was organized, which continued for four years. He now raised the Green Flag of the Prophet, refused all titles but that of the "servant of God," and, after clearing the country of the Fellatahs, he proceeded to punish all those nations who had given them assistance, and with slaves, the produce of these wars, he rewarded his followers for their fidelity and attachment. No one could have used greater endeavours to substitute laws of reason for practices of barbarity, and, though feared, he was respected. He subdued more by his generosity, mildness, and benevolent disposition, than by the force of his arms; he was completely the winner of his own honour.
and reputation, and assumed to himself the title of Liberator, or Salvator of the country he governed, and his highest ambition was to restore the empire of Bornu to its former splendour. But, before his death, fresh disasters had befallen his country; several great battles had been lost, in which his own son and the king perished, and the provinces he had won were soon reconquered by the Sultan of Sokoto. El Kanem was an extraordinary if not a solitary instance, in the Eastern world, of a man raising himself to sovereign power from a humble station without shedding blood by the assassin's knife, or removing those who stood in the way by the bow-string or the poisoned cup.

The whole country of Bornu is flat, except to the south, which is rather elevated. It appears that the regions in the neighbourhood of Lake Chad are under water during the rainy season. The greatest part of the country is under cultivation; various kinds of grain are produced in abundance; rice is cultivated, but it grows wild in many parts of the empire, and the natives have only the trouble of gather-
ing whatever quantity they may require. A good kind of cotton is produced, and wheat is cultivated extensively in some parts by irrigation; luxuriant fields of this grain may be seen watched by slaves, who keep away wild animals and birds. The corn, after being cut, is made into stacks, and some is stowed away in granaries built for that purpose, as represented by the accompanying woodcut. The soil in the neighbourhood of Lake Chad is impregnated with soda. This is extracted by the natives in considerable quantities, and forms a large article of commerce throughout Soudan. Tobacco is cultivated extensively; the sugar-cane grows wild in
many parts. Bornu is covered with a great variety of fruit and other trees. The fan-palm spreads from the Musgu country in an uninterrupted and unbroken line through Bagirmi and Waday as far as Kordofan. Throughout the whole country domestic animals, such as cows, sheep, goats, horses, camels, buffaloes, abound. Bullocks are almost exclusively used for the transit of merchandise. A good bullock may be purchased for about 12s. Fowls are reared, and hives of bees are extremely plentiful. Wild animals, the lion, leopard, wolf, fox, dog, and herds of elephants, sometimes numbering 400, are often seen in many parts of Bornu. Among the game may be enumerated many species of antelopes, partridges, wild ducks and ostriches; the hippopotamus and crocodile frequent the rivers.

The climate of Bornu may be considered healthy; the greatest heat in summer reaches 96° in the afternoon, but at night it falls to 50°; in January and December, which is the coldest season, the thermometer never exceeds 70°.
Lake Chad.—This remarkable lake, on the eastern borders of Bornu, covers an area of about 10,000 square miles, but in the rainy season it occupies a much larger space. Its elevation above the sea is about 800 feet, with a depth of about fifteen feet. Its surface is dotted with a large number of islands, said to be inhabited by a distinct race of people leading an independent life. Their piratical habits are a constant terror to the tribes living on the borders of this lake; their only commerce appears to be in fish, which they catch in the lake and dry in the sun. They carry on an extensive trade in this article with the people of Bornu. Every expedition that has been sent to subdue these wild people has been unsuccessful; being good sailors, and having a considerable fleet, they seem to be secure in their island home of freedom from all attacks.

The military force in Bornu is approximately estimated at 30,000 cavalry and 9000 infantry; these are armed with muskets, swords and spears. Many of them are armed with bow
The Islands of Lake Chad.

and arrow; coats of mail and helmets are worn by the cavalry troops.

The population of Bornu is estimated at about 5,000,000. It is said that no less than thirty languages are spoken throughout the empire. The complexion of the natives is black, but their features are different from the general features of negroes. The women are cleanly, but not good-looking. The general dress of the people consists of a white tobe of woollen cloth, and a haik made of the same stuff, and turban formed of folds of cotton cloth, and some wear a red cap, which is brought from Tripoli. The dress of the women is made of the same material. The ornaments of the females consist of rings, beads which they wear round the neck, and charms. Arabs in great number have settled in Bornu, and Fellatahs also.

The common people generally contract marriage after harvest, and while the corn is cheap.

The principal articles of export are ostrich feathers, gold-dust, horses, salt, natron, civet and slaves. The slaves are procured from
the pagan states in the south, expeditions being regularly formed for this purpose. An eye-witness has stated that these slave-hunters destroy whole villages by fire, and he has seen slaughtered men who fought to defend their homes and all that was dear to them, lying about in all directions with their limbs severed from their bodies—a scene to make any one shudder with horror. Some of the inhabitants of Bornu are engaged in several branches of industry, such as weaving cotton wool, and dyeing. They form the iron afforded by their country into such tools as their work requires. They manufacture salt from the water of Lake Chad, and from a peculiar kind of grass growing in the water. They also make gunpowder from the coals prepared from the mimosa. The articles of merchandise received from Europe are chiefly red woollen caps, check linens, light coarse woollen cloths, baize, baracans, small Turkey carpets and plain Mesurata carpets, silk wrought and unwrought, tissues and brocades, sabre-blades, knives, scissors, coral beads, small looking-glasses, &c.
The people of Bornu are strict Mohammedans, but some of the southern districts are still pagans.

Kuka, the capital, is situated on the banks of Lake Chad. It consists of two distinct towns, each surrounded by its own walls. One is occupied chiefly by the rich and wealthy, and contains large establishments; the other consists of rather crowded dwellings, thickly inhabited, on both sides of the wide open road which forms the connexion between them, laid out less regularly, and presenting to the eye a most interesting medley of large clay buildings and small thatched huts with massive clay walls surrounding immense yards. All round the two towns there are villages and large detached farms surrounded with clay walls. In this labyrinth of dwellings anyone interested in the forms which human life presents may rove about at any time of the day with a certainty of finding never-failing amusement. Although the life of the Kanuri passes rather monotonously along, with the exception of occasional feasting, the place becomes very animated on the market-days, which
are held every Monday. It is remarkable that the market does not begin to be well attended until the heat of the day is intense. In other parts of Soudan the markets are held in the cool of the evening. Even the small markets are held in Kuka in the afternoon. The most important of these fairs is held in the inside of the west gate, and here camels, horses, and oxen are sold in considerable numbers; but they are much inferior to the large fairs or markets which are held in the open ground beyond the villages, at some distance from the western gate. On reaching the market from the town, the visitor first comes to that part where the various materials for constructing dwellings are sold; then oxen for slaughter or for carrying burdens; further along, rows of leather bags filled with corn, ranging far along on the south side of the market-place. These long rows are animated not only by the groups of sellers and buyers with their weather-worn figures, but also by the beasts of burden, mostly oxen, which have brought the loads and which are to carry
back their masters to their distant dwelling-places; then follow the camels for salt—often as many as a hundred or more—and numbers of horses, but generally not first-rate ones. The best are sold privately. The sale of camels, horses, &c., with the exception of the bullocks, passes through the hands of a broker, who, according to the mode of announcement, takes his percentage from the buyer or seller. The middle of the market is occupied by dealers in merchandise of home and foreign manufacture, such as cloths, shirts, beads of all sizes and colours, leather, coloured boxes of different shapes and sizes, very neatly and elegantly made of ox-hide, neat little boxes made of the kernel of the fruit of the dum-tree. Then comes the place where the slaves are disposed of. Thousands of these creatures are exhibited in their sad condition, partially covered with miserable tatters. The slave is examined with care; the price demanded is according to the age, strength, and colour of the prisoner, and varies from ten shillings to five pounds. The brokers and retail dealers are the people who have sheds, and, the place
being destitute of trees, the buyers and sellers are exposed to the whole force of the sun. Between eleven and three o’clock is the time when the market is most full and busy; the crowd is often so dense that it is difficult to make one’s way through it, for the place not being regularly laid out, nor the thoroughfare limited by rows of stalls, each dealer squats down with his merchandise where he likes. There is often from 12,000 to 13,000 people present at the great fair, but the noise is not very great, the Kanuri people being more sedate than the people of Sokoto. They do not vend their wares with loud cries. The barber going about through the market affords some amusement by his constant *kandadi*. In a place of business like a market very little is done for amusement, although sometimes a serpent-tamer and story-teller may be met with. Sweatmeats and cakes, boiled beans, dried dates, water, and sour milk, are the only refreshments offered to the people at the market. Camels are generally sold at 4l., and trading-horses at 1l. 13s.

The most important provinces belonging
to Bornu are Zinder, Kanem, and Musgu. I will just refer to them briefly.

Zinder, the chief town of the province of that name, is surrounded by a low rampart of earth. Outside the walls there are extensive tobacco fields, and also groups of date-palms. Besides indigo dyeing there is no industry in the town, but its commercial importance is great. It may be called the gate of Soudan. It serves to connect Bornu with the Wadan and Tawat caravan routes; these have the advantage over the Murzuk-Bilma route that even small caravans can proceed by them with almost entire security. Looking-glasses and Arab and European merchandise are sold in great quantities in the market of Zinder.

Gummel is another important town of this province. The wall by which it is surrounded is of considerable strength. The market is held outside the town, between the two gates on the west side. The north gate is remarkable on account of its well-fortified condition. Gummel is the chief market for the very extensive trade in natron which is
carried on between Kuka on the one side, and Nupe on the other. The Bornu people very rarely carry this trade further than Gummel. A thousand loads may be seen offered for sale at this market at one time. There are also 300 stalls, in which a great variety of goods are offered for sale, such as clothing and tools—numbers of sheep, donkeys, and horses are also sold in this market—in fact, everything of home and foreign produce which is in request among the natives may be found here.

The province of Kanem formed at one time an independent kingdom, and it is said to be of greater antiquity than Bornu itself. It is situated on the eastern side of Lake Chad.

Musgu country is the most southern province of Bornu. It was formerly an independent pagan state. A great number of slaves are captured in this country.

The following account is given of the strange manner in which a Musgu chief submits to the ruler of Bornu:—The chief kneels down, clapping his hands while re-
peating the complimentary words, "God give you long life!" He then takes up sand and sprinkles it upon his head. The commander-in-chief of the army, as representative of the Sultan of Bornu, makes a sign, and the chief is installed as a vassal officer of Bornu. First he is dressed in an elephant or large black shirt, over which a rich silk tobe is thrown. An Egyptian shawl placed over all the other garments completes the ceremony.

The brief account I have given of Bornu will be sufficient to prove to the reader the great natural richness of the country and its productive capabilities. All that Bornu requires is to be opened up to Europe, and to be under good government. With these facilities the people would not only raise sufficient produce for their own wants, but they would export almost an unlimited supply of grain.
WADAY, BAGIRMI, AND DARFUR.

CHAPTER X.


WADAY is situated to the east of Lake Chad and Kanem. The empire is supposed to have been founded in the sixteenth century by Wada, after whose name it received the name of Waday.

Islam is the religion of this country, and its ruler is a Mohammedan prince. The most wise and enterprising of the rulers of Waday was Abd El Kerim, who mounted the throne in 1805. First he enriched himself by the spoils of Bagirmi, whose inhabitants were much further advanced in civilization than their eastern neighbours. By these predatory expeditions they had amassed a
great deal of riches, consisting not only of fine cloths and coral, but even silver, of which Abd El Kerim is said to have carried away with him five camel-loads, being equal to 1500 lbs. weight. It was also during his reign that Bagirmi became tributary to Waday. After Abd El Kerim had consolidated his empire he turned his attention to commerce, and endeavoured to open a direct communication with the ports of the Mediterranean, in order to supply himself with those manufactures which before the spoil of Bagirmi had been almost unknown to the people of Waday; but death prevented him from carrying on this project. The most energetic and intelligent of his successors was Ali, who ascended the throne of Waday in 1858. He raised his empire to a position of still greater power and importance. He has brought foreigners into his country, protected and encouraged traffic, and has extended his power and influence far beyond the limits of his kingdom, and he has also opened a considerable traffic with the Mediterranean ports.

Waday proper is almost a level country,
interspersed with many isolated mountains, and destitute of water except in the rainy season. There are said to be hot-springs in some parts of the country. Waday has a gradual elevation from the low-lying districts around Lake Chad towards the east, where the country assumes a mountainous character, forming the boundary between Waday and the almost level country of Darfur. The lake or lagoon of Kuka receives all the moisture carried down during the rainy season by the smaller watercourses, and collected in the larger valley of the Bathá, with the exception of Wadi Kinya, which runs from north to south. In the northern part of the country, where it is bordered by desert tracts, there are several smaller watercourses which die away in the sand. The country between Lakes Fittri and Chad is an elevated district, intercepting entirely the communication between these lakes. To the east of Lake Chad there is a dry channel called Bahr El Ghazel, which, it is said, may have formed at one time the outlet from this lake. Its course is north-east,
and communicates with depressed regions, much lower than Lake Chad. The watercourses and valleys in the dry season form natural high-roads, along the banks of which dwelling-places of men are established. With respect to the outlying provinces of the empire, situated towards the south, their character is evidently much more varied and rich in perennial watercourses; but the information regarding them is so vague as not to enable me to give any satisfactory account of them.

The government is an imitation of that which existed in Darfur. The whole of the empire of Waday is said to be divided into four provinces, with a governor over each, and with a like number of sub-governors, who have many other duties to perform. They have the general management of all public affairs in the provinces, and have the power of life and death. Wherever they go they levy the present of hospitality—a tribute which is regulated according to the size of each respective place. The Sultan sends an inspector to superintend and control the col-
lection of tribute. There are military governors of great authority in each province. Their duty is to assemble and lead the troops to battle; they often undertake expeditions on their own account. The tribute paid by the natives to the Sultan consists of the produce of the different provinces. Slaves are captured in great numbers for the markets of Waday: both Waday and Bagirmi form strongholds for this inhuman traffic. The population of Waday is composed of several different tribes, the Arabs being the most powerful. Abeshr, the capital, stands at an elevation of about 1500 feet above sea level. The army of Waday consists of about 7000 horse, the number of which is annually increasing; 1000 of these are clad in coats of mail, every caravan bringing several camel-loads of this armour. They sell for one or two female slaves a-piece. Their common arms are muskets, spears and swords.

Bagirmi is situated to the south-east of Lake Chad. It was at one time independent, but it is now subject to the Sultan of Waday. The country forms a flat level with a very slight
inclination towards the north, the general elevation of the country being about 950 feet above the level of the sea. The greatest length of Bagirmi is about 240 miles by 150 miles broad. Towards the north there are detached hills separating Lakes Fittri and Chad, the two basins having no connexion with each other. But while Bagirmi proper appears to be a flat country, the outlying provinces to the south-east seem to be mountainous, being so high that the cold is felt very severely, and hail or snow falls occasionally during the cold months. The soil consists partly of lime and partly of sand, and produces millet or sorghum, which two species of corn form the chief article of food, not only of Bagirmi, but almost all over Soudan; but besides this a great deal of sesamum is cultivated, a branch of cultivation which imparts quite a different aspect to this country as well as to many of the pagan countries in the south, the population of which appears to subsist chiefly upon this article. In some other districts of Bagirmi beans form one of the chief articles of food. Wheat is not raised at all,
with the exception of a small patch in the interior of the capital for the private use of the Sultan. Rice is not cultivated, but collected in great quantities after the rains in the forest, where it grows in swamps and temporary ponds. Indeed, a good dish of rice, with plenty of butter and meat, forms one of the luxuries of Bagirmi. Another article of food in general use is afforded by several varieties of grass called *poa*. Various other vegetables are grown in abundance. The trees most common are palm, tamarind and sycamore.

There are no mines in Bagirmi; even the iron is brought from the exterior provinces, especially a place called Gurgara, distant from twenty to twenty-five miles from the River Shari, where the sand seems to contain a great deal of iron ore. Large quantities of natron are brought from the Bahr el Ghazel. The population of Bagirmi is estimated at about one million and a half; the military strength is given at 3000 cavalry and 10,000 foot. The weapon in use among them is the spear, the bow and arrow being rare; the dagger
is worn by some in imitation of the Tawarek and Berber, from whom it has been introduced into a great part of Soudan.

It is only recently that Islam has been embraced by the ruling classes, and the greater number may yet, with more justice, be called pagan rather than Mohammedan. They possess very little learning, only a few natives who have performed the pilgrimage to Mecca being well-versed in Arabic. Not a single individual possesses any learning of a wider range. The only industrial arts in which they have made progress are those of dyeing and weaving, both of which they have also introduced into the kingdom of Waday. Black robes are worn by the men to a much greater extent than in Bornu. The government is absolute monarchy, not being tempered, as it seems, by an aristocratical element, such as we find in Bornu, nor by such an assembly as we have met with in Sokoto or other Fellatah states. The tribute levied on the inhabitants by the king consists principally of corn, cotton strips, cattle, and butter. The most considerable tribute, however, is slaves, which
the tributary pagan provinces have to pay annually. This tribute of slaves constitutes the strength and riches of the King of Bagirmi, who is always endeavouring to extend his sway over the neighbouring pagan tribes. The natives of Bagirmi are compelled to show their sovereign a considerable degree of servile reverence, and when they approach him they are obliged not only to be bareheaded but also to withdraw their shirt from the left shoulder, and to sprinkle dust on their heads, but they are not in general oppressed, and great liberty of speech is allowed them.

Masena, the capital of Bagirmi, is situated on the banks of the splendid River Shari, which runs through the whole extent of Bagirmi. Its population is estimated at 20,000 souls; but the city was much larger and more prosperous in former times when the Bagirmi empire was independent; but the continual war which is carried on between this country and Waday has ruined, to a great extent, the commercial and agricultural prosperity of these regions. It appears that the people are very superstitious. Dr. Barth met
at Masena, a learned native who had resided in Egypt, Arabia, and other semi-civilized countries. His name was Faki Sombo; he was tall and slender; his face, which was very striking, lost most of its effect on account of his being then totally blind. Great was the doctor's surprise to find so learned, cheerful, and intelligent a man on the banks of Lake Chad. He was well versed in all the branches of Arabic literature, and was in possession of those portions of Aristotle and Plato which have been translated into Arabic. "After having once made his acquaintance," says Dr. Barth, "I used to visit him daily, and he was always delighted to see, or rather hear me, for he had no one with whom he could talk about the splendour and achievements of the Caliphate from Bagdad to Spain, particularly of the latter country, with the history of whose kings and literary men he was intimately acquainted. He listened with delight when I once mentioned the sextant, and he informed me with pride that his father had been in possession of such an instrument, but that for the last twenty years he had not met a single person
who knew what sort of thing a sextant was. I shall never forget the hours I passed in cheerful and instructive conversation with this man, for the more unexpected the gratification was, the greater naturally was the impression which he made on me. One day while I was engaged in earnest discourse with him respecting the many sects of Islam, our conversation was suddenly interrupted by one of the daughters of the Sultan entering abruptly and accusing my friend in the most offensive terms of having abstracted from her by his witchcraft one of her slaves. But it was rather astonishing that a man with so vast an amount of learning was allowed to live at all in the midst of such barbarians as these, without being continually suspected of sorcery and witchcraft. I shall not forget one day when I went to call on my friend, and found the unfortunate blind old man sitting in his courtyard in the midst of a heap of manuscripts which he could then only enjoy by touching them with his hands."

The King of Bagirmi pays a yearly tribute
to the Sultan of Waday, consisting of 100 horses, 100 slaves, 30 handsome female slaves, and 1000 shirts. The value of this tribute in Bagirmi is estimated at 6025l. The superintendent of this dependency receives, as a present from the king annually, ten handsome female slaves, four horses, and four shirts.

*Darfur* is now no longer independent. It has been conquered by the Egyptians, and the Khedive of Egypt has assumed the government. Its brave king perished in defence of his country. Darfur forms the eastern limits of Soudan; it joins Waday on the west, and Kordofan on the east. The population of this country is said to be about four millions. Its riches consist chiefly in cereals and cattle; a small quantity of wheat, ground nuts, cotton, indigo, beans, and tobacco are cultivated. The domestic animals are camels, cattle, horses, sheep and goats. It surpasses its neighbouring countries in the quality and quantity of its honey. The principal town for trade is Kobbe, situated on a small fertile oasis of exceptional fertility. Its population is about 6000. The town is long and narrow,
and each house or hut stands in a cultivated garden. The water is procured from shallow wells, dug in most instances close to the house.

Kobbe is resorted to by Arab merchants from Egypt. During the rainy season the vegetation is rich, but the people are not industrious cultivators of the soil. The wealth of the people consists principally of cattle. All commercial transactions are done by barter. The natives give slaves (supposing the Khedive has not abolished the system), ivory, ostrich feathers, hides, drugs, and copper, in exchange for cottons, silks, swords, fire-arms, spice, trinkets, &c.

In closing this brief description of the principal states of Soudan, I have only to remark that I have endeavoured as far as possible to give a faithful account of those important regions. I have carefully collected the information from the best records I could
consult; I have not entered into any elaborate detail, which would necessarily occupy a large space. The principal object of these chapters is to give the reader a general view of the most interesting and important portion of Central Africa. I have fully demonstrated in the two following chapters the desirability and feasibility of opening a commercial highway into these vast regions, that would be the means of abolishing slavery, introducing commerce and civilization into Soudan and the surrounding country.
THE PRESENT SYSTEM OF COMMERCIAL COMMUNICATION WITH SOUDAN.

CHAPTER XI.

Mode of transit—The Meharee—Wadan, Tawat, Agades, and Murzuk-Bilma routes—A fair at Ghat.

The present mode by which commerce is carried on with Soudan, and indeed with the whole of Central Africa, is of a most complicated and difficult character. Railways, canals, and highways—the civilized modes of communication in Europe—are things unknown in Africa, and the physical character of this vast continent has isolated it from the civilized world. Africa is not pierced by any arms of the sea, and her rivers are unnavigable at a few miles from their mouths. Trade, therefore, is chiefly conducted by land transit, in which the camel is almost universally employed. This animal is peculiarly adapted
for long journeys over barren regions; it exists on little food, and can take in a store of water sufficient to last for a fortnight. The bullock is used, with considerable advantage in some parts of Africa, for carrying merchandise, and this animal seems to have been employed very largely by the ancients for the transport of merchandise across the Sahara before the camel was introduced. Sculptures found in the desert, in which a herd of bullocks are represented, point to the fact that they were very common in these regions; and that they were used as beasts of burden there can be little doubt, for St. Augustine states that the chariots of the kings of Fezzan were
drawn by bullocks, although they have now almost disappeared since the introduction of the camel.

The present system of commerce across the Sahara to Soudan has existed from time immemorial. The Carthaginian and Roman merchants used the same paths that are now traversed by the Arab caravans. It is evident that the enterprising Carthaginians held a regular communication with Soudan, and that they received their elephants from this country, of which they had a great number. Hannibal, the Carthaginian general, had elephants with his army, and passed the Alps with them on his celebrated march to Rome. African elephants were also found in the train of Scipio Africanus when he made his triumphal entry into Rome, after the conquest of Carthage—thus clearly proving that the Carthaginians had a large number of these animals, and they could only have obtained them from Soudan. It is from the ports of Morocco, Algeria, Tunis, and Tripoli, that the people of Soudan receive their European merchandise; and the Arabs and natives of the Sahara are
The Swift Meharee.

the only merchants engaged in conducting this trade across the desert. The common camel is almost exclusively used for the transit of goods—the meharee or the swift camel being reserved for services requiring expedition. It appears that this last animal is the inseparable companion of the Tawarek and Berber. It seems to bear the same relation to the common camel that the racer does to the draught-horse; but of all the animals it is perhaps that which, from the nature of the country it inhabits, and of the service it is doomed to perform, has been the least made an object of observation and study. The only country that agrees with it is the central desert; it cannot live in the northern part of Africa or in the mountainous country of Soudan; even some parts of the desert do not appear to agree equally well with it. These animals seem to be as well adapted to the mode of life of the Tawareks and Berbers as if they had all been cast in the same mould. The meharee is tall, and, from being of light and slender make, appears to stand considerably higher than the camel; his neck is remarkably
long, his legs thin and delicate, and his bunch projects but little. His countenance, like that of the camel, is careless and imperturbable, but under this sorry aspect and seeming indolence he conceals qualities which might almost make him the king of beasts, a fidelity and gentleness which is proof against every trial, a sagacity resembling that of the dog, and a swiftness far superior to that of the horse. Like his masters, he has physical organization adapted to the region in which his lot is cast; he renders valuable assistance to caravans, which, when preparing to set out, generally despatch avant-couriers, mounted on swift coursers, to reconnoitre the route, and ascertain whether it is supplied with water, and whether beset with any danger. It is said that a good meharee can travel about eighty miles, day after day, continuously. The mode of rearing this valuable animal is curious. As soon as he is born, he is plunged to the neck in fine shifting sand, lest his soft and slender limbs should be bent by supporting the weight of his body, and for fourteen days he is fed on
a diet chiefly of butter and milk, the composition and quantity of which varies every day, according to established and well-known rules. At the end of a month he is allowed to run; an iron ring is then passed through his nose, and his education commences. When well trained, he displays remarkable sagacity. If his rider chooses to plant his spear in the ground in the midst of a rapid course, the animal, attentive to the slightest intimation of his wishes, turns round the weapon to enable him to regain it, and resumes the course without slackening his pace for a moment. When the warrior falls in battle, the faithful charger stretches himself on the ground, as if inviting him again to mount his back. If he is able to do so, he bears him gently but swiftly from the scene of carnage; but if the rider remains silent and motionless, the meharee hastens to the town of his habitation, exhibiting the empty saddle to the bereaved family. The women now commence the death dirge, the children set up piercing cries, the whole community is thrown into excitement and alarm, and the horizon is watched with anxious
solicitude. Some spots appear—they increase—they approach—they are other meharees without their riders—mute but truthful messengers of sorrow, confirming the intelligence that the troop has been defeated, and the loved ones are no more. It is only the wealthy that obtain one of these noble creatures; a good meharee cannot be purchased for less than 30l., while a common camel can be had for about 3l.

There are four principal roads or caravan tracks by which the productions of Europe are transmitted into the populous regions of Soudan, namely, the Wadan, Tawat, Agades and Murzuk-Bilma routes, which are indicated on the map accompanying this book. There are numerous tracks branching off these main routes, which are used according to circumstances. All these are rendered difficult by the sterile and the mountainous character of the country that has to be crossed, as well as the hostility and jealousy of the native tribes, who charge a toll on every caravan passing through their country. In order to insure security for the life of the mer-
chant and the safety of his goods, it is always necessary to hire a native escort, who in many cases take charge of the merchandise until it is safely delivered in the markets of Soudan. The Wadan route, between Morocco and the Upper Niger, is the most important for commerce. The caravan which makes the journey by this road is perhaps the largest that crosses the desert at one time. It appears that camels laden with European goods make their journey from the northern ports by various routes across the Atlas mountains, and meet at a place called Tendoof on the confines of the
The Flooding of the Sahara.

Sahara. Here the caravans amount to over 10,000 camels; they leave this place generally in the month of October, dividing themselves into two caravans—one taking the road to Tawat. Here they are joined by caravans from Gadamis, &c. From this oasis they proceed southward by the Tawat route, across the waterless desert of Tanezrufet, to Mabruk on the eastern borders of El Juf; but, before arriving at this town, many of the camels are loaded with that necessary commodity, rock salt, from the famous mines of Taudeny. From Mabruk, the caravans have to cross the more favoured country of Azawad, touching at the town of Arawan, and terminating their journey at Timbuctoo, where the caravan is broken up. Although this route is over a more or less sterile country, with only thirteen stations on the entire journey, yet it is continually used by merchants for the transport of goods. The reason for this is that the situation of Tawat is most convenient for the Gadamis, Algerian, and other northern merchants, who have agents here as well as at Timbuctoo.
Mohammed El Mukhtar.

The other division of the great caravan, which assembles at Tendoof, takes a south-westerly course on the Wadan route until it reaches a town called Sakiet El Hamra; it then proceeds in almost a straight line to the town of Wadan, where the Portuguese established a factory in the fourteenth century, but they abandoned it on the discovery of America. The course taken by caravans from Wadan to Walata is nearly a straight road, but from this town it makes a south-easterly bend until Timbuctoo is reached. The Wadan route from Tendoof by Sakiet El Hamra is the best of all the desert routes; water is plentiful, and there are no less than forty-two stations on the whole journey. Caravans proceeding by it are not molested by hostile people, for the important tribe of Tajakant holds the whole country, and the trade between Morocco and Timbuctoo is entirely in their hands, or under their protection. Their chief, a marabout Mohammed El Mukhtar, is considered an excellent man, and he can certainly bring over 2000 muskets into the field, as well as command a considerable force from
the other tribes who are under his rule. The towns of Wadan and Walata, on the main route to Timbuctoo, are of great commercial importance; they form markets for many parts of Western Soudan. There are about sixteen different roads leading from these towns to the Upper Niger and Upper Senegal, and merchants are continually engaged in the trade. Walata was a great centre of commerce long before Timbuctoo was founded—its favoured situation adding considerably to its commercial importance. A caravan can make the journey between Walata and Sansanding, in the centre of Bambarra, in fifteen days, and it takes the same number of days to accomplish a journey between Walata and Timbuctoo; therefore a considerable amount of merchandise for Western Soudan does not reach the latter town, but is passed through the former to the Upper Niger.

Wadan, Tishit, Walata, and Timbuctoo are excellently situated for the new route from Cape Juby, as may be seen by a reference to the map. European goods could be poured into these markets from Port
St. Bartholomew, Cape Juby, with considerable despatch; from these towns they could be sent all over Soudan. I will deal with this subject more fully in another part of the book. The principal merchandise carried by the caravans going to Soudan by the Tawat and Wadan routes are blue sallampore, American cloth, long-cloth, sugar, tea, glass beads, amber beads, shells, and silk from Fez and Morocco. These are exchanged in the markets of the interior for native produce, such as gold, ostrich feathers, ivory, gum of Senegal, gum Arabic, incense, Soudan blankets, and slaves. The slaves are sold in the markets of Morocco. It would be difficult to form a calculation of the number of these unfortunate creatures that are driven every year from their native homes, and doomed to pass a life of servitude among the fanatical Mohammedians of Morocco. The number is stated by some to exceed 10,000 annually. It is heart-rending to witness the departure of these poor victims from their homes; it appears that the conformity of their melancholy condition excites among them a feeling of sympathy and
mutual interest. At parting they recommend good behaviour to each other, but their owners hurry them away and interrupt these affecting scenes. The opening of the port at Cape Juby would very materially aid in destroying this horrible traffic in human flesh and blood altogether.

The third commercial route from the Mediterranean ports to Soudan may be called the Agades route. This road is very difficult for travellers; the country that has to be crossed is of a mountainous character, rising in some places to an elevation of 5000 feet above the sea. Caravans by the Agades route start for Soudan from a place called Ghat. Here several caravan routes from Tripoli, Tunis, and Algeria terminate. At this place, the merchants form themselves into a large caravan, under the protection of the Tawarek chiefs, who hire themselves for this purpose. From Ghat the caravan proceeds slowly over rugged paths and verdant valleys, ascending the highlands of Asben until it reaches Agades, the capital of the Tawareks. Here the caravan is again divided; some take the routes to the markets
of Songhay and Sokoto, while others proceed to Katsena, Kano, and Bornu. Tunis and Tripoli export, by the Agades route, mostly articles of European luxury, such as silks, pearls, cloves, cinnamon, perfumery, paper, cloth, looking-glasses, &c. The imports from Soudan are similar to those I have already named, with the addition of buffalo hides, and slippers made in Soudan. About 17,000l. worth a year of these slippers are sent by Kano alone to Morocco and elsewhere.

The fourth commercial route to Soudan may be named the Murzuk-Bilma route. The manufactures of Europe are poured into Murzuk, the capital of Fezzan, from Tunis, Tripoli, and from Cairo in Egypt. At Murzuk the merchants form themselves into two caravans. One takes the Agades route by Ghat, the other proceeds to Bilma. Here they separate into small parties, taking the route to Lake Chad, and others proceed to Waday, Darfur, and other states. Caravans travelling by the Murzuk-Bilma route encounter considerable difficulties. The country is rocky and mountainous, and the tribes
inhabiting these regions are very troublesome, since they are continually at war with each other. There is still a large trade in slaves carried on by the Murzuk-Bilma and Agades routes. The blanched bones and skeletons, still covered with strips of native clothing, are scattered throughout almost the entire route. These sad remains strike every traveller who is unaccustomed to these scenes with horror and alarm. "What can this mean?" is the uppermost thought in the traveller's mind. These bones and skeletons are mute witnesses of a terrible story; these are the remains of some of the poor slaves who are driven by pitiless masters in famished bands across the Sahara. On their sad march from Lake Chad to Tripoli, from time to time one of the miserable company falls to rise no more; their bodies become a prey to the fowls of the heavens and the beasts of the field. When these slaves are purchased in the markets of Soudan, the merchants examine each with the greatest care; the height of a slave is taken, the mouth examined, the teeth counted, and his appetite inquired into. Over 4000 of these
victims pass through Murzuk alone every year to Tripoli. From this place they are sent to other ports in the Turkish empire, from which they never return.

Each considerable town on the caravan routes to Soudan becomes periodically a fair, which is attended by a large number of merchants from various parts. As many as 500 merchants attend the fair held at the town of Ghat, and the value of business done at each fair in the produce of Soudan alone is set down at 120,000/.; add to this the corresponding amount of European goods which are exchanged for the native produce, and the total value of the business done will be 240,000/. The traffic of the Sahara as well as Soudan is effected chiefly by barter. Spanish and French money is used in some places. The principal currency of Soudan is shells, called cowries, and salt. The caravan routes to Soudan that I have already described are mere tracks on the sod by the naked foot of man, and the tread of the camel, horse or mule. They are often so narrow that two persons cannot walk on them abreast.
Consequently, if travellers and caravans meet, the one takes to the right, and the other to the left. If an Arab is turned out of his track for a time, he hastens back to it as soon as possible; but when the caravan comes to the sands of the open desert, even these pathways disappear; the wind soon effaces the footprints of the passenger, and they seek in vain the long white track which guides the traveller. A bush, the white top of a sandhill, the summit of a distant mountain,—these are the waymarks which guide the traveller across many parts of the Sahara. Where nature has not provided a mark, the natives have raised pyramids, each traveller adding a stone to the heap as he passes. The wells on the route are preserved with the greatest care by the inhabitants. A bucket is left by its side to enable the traveller to quench his thirst. At each large town on the route there are hotels corresponding with the principal points of commercial intercourse, and these not only serve as resting-places, but as a rendezvous and starting-point for the caravans which frequent them. The day and hour of starting
Caravan Travelling.

of each caravan is made known by the chief driver, and every information in reference to the caravans is supplied at the hotels to any one who wishes to join. The muleteers and camel-drivers form the nucleus of the caravan, and regulate its movements. The length of a day’s journey is generally about twenty-four miles, but, in countries destitute of water or infested with robbers, it may extend to forty miles. Travellers who join a caravan are not obliged to submit to any discipline. There is no community except that of dangers to be escaped and an end to be attained; if they sustain an attack, each one consults his own courage, and does independently what in him lies to repel or escape the enemy. It rarely happens that any regular disposition of force is made either for the attack or the defence, and occurrences of this nature always produce considerable disorder. The caravans are composed of men whose principal occupation is commerce; but women are not excluded, and it is no uncommon thing to see widows, having no other support, carrying on the traffic of their deceased husbands. Among
the strangers who join the caravan there are generally found some destitute creatures who on the day of departure know not how the bread of to-morrow is to be obtained; but they are not disheartened; they trust in Providence, and not in vain. Scarcely has the cavalcade started but they find opportunities of making themselves useful, either in loading or guiding the camels, for which little services they receive their daily food, and it is all they desire. Thus they accomplish a long journey without expense on the one hand, or privation on the other. It is in this way that numbers of poor husbandmen and labourers, not finding their toil sufficiently remunerated in the oases, make their way to the coast, where they form the most intelligent, the most industrious, and the best conducted portion of the community. One cannot compare the habits and the wants of one of these camel-drivers of the desert with those of European waggoners without being struck with the contrast. The latter requires, as every night closes in, a roof to shelter him, should it be only that of a hovel, and a bed, though but of straw. He needs
nourishing food to support his strength, and his necessity is rendered more imperious by the use of alcoholic liquors. But the Arab camel-driver asks no bed but the sand, no roof but the sky; a fountain of pure water is his most luxurious tavern, his sustenance is moistened meal, and for these he offers thanks to Heaven.

Five times a day he prostrates himself on the ground, laying his forehead on the sharp stones of the desert, if such be the paving of his route, and pours out his prayers to his heavenly Guide, Protector, and Provider. The provisions generally used for a journey are roasted barley, dates, and butter, if one is desirous of luxury; if not, the only article is roasted barley.

Besides the regular merchant caravans, there are small caravans who make the journey to Soudan, and some undertake it without an escort, but this is considered unsafe.

The four commercial routes that I have already described are the main roads of communication between the ports of Morocco, Algeria, Tunis, and Tripoli, and the markets
of Soudan. It is by these routes that European goods are transmitted across the Sahara, and by which the productions of Soudan are brought to the European markets. Each of the roads I have named are beset with difficulties; mountainous countries, sterile deserts, hostile tribes have to be encountered by caravans; but the climate is all that can be desired. The people of Soudan depend entirely for their supply of European merchandise on the caravans crossing the desert. The high mountain ranges, swamps, unnavigable state of the rivers, together with the unhealthy climate of the west coast of Africa, preclude any traffic from that side with Soudan; hence it is that these people have depended for thousands of years on the roads to the north for their communication with the outer world. If these routes were improved by civilized man, the transit would become quick, inexpensive, and easy, and by this means increase the supply; but in their present condition it takes months to accomplish one journey, and the cost of carriage more than doubles the price of the goods by
the time they reach the nearest market of Soudan. The shortest of the roads between Soudan and the Mediterranean is about 2000 miles in length, and the Atlas and other high ranges of mountains have to be crossed by the caravans. Notwithstanding these difficulties, the annual value of the present trade carried on between the northern ports of Africa and Soudan may approximately be estimated at 4,000,000L. If a commercial market was opened at Cape Juby, it would command almost the whole trade of Soudan, because a junction with the Wadan route from this point would shorten the journey by more than half, and by it the mountainous countries that have now to be crossed would be avoided. Nature has rendered the Wadan route the most favoured road to the interior, as may be seen by a glance at the map. In a very short period, three times the present amount of merchandise could be poured into the markets of Soudan with comparative ease and security, thus raising the annual value of the trade to 12,000,000L. A caravan could make three journeys a year with greater ease by the
Wadan route from Cape Juby than one by the present roads. I have entered more fully on this important question in the following chapter on the Proposed Plan.
THE PLAN FOR OPENING UP A DIRECT COMMUNICATION WITH SOUDAN.

CHAPTER XII.

Western Sahara — Boundaries — Districts — Physical character — Population — Productions — Flooding of the Sahara—The plan for opening up direct communication with Soudan.

The general name of Sahara has long been given to a portion of Africa covering an area of about 3,000,000 square miles. From the valley of the Nile to the Atlantic Ocean, and from the spurs of the Atlas to the banks of the Niger, was considered by ancient geographers to be a great wilderness—a vast plain of moving sand, more terrible to encounter than the waves of the ocean, spotted here and there with oases, like a leopard-skin; these formed islands in the vast solitude—a country into which no European dare penetrate with any hope of ever returning again.
It was not until the early part of the nineteenth century that public attention was directed to the possibility of penetrating to Soudan across the Sahara. In 1822, this feat was accomplished by Denham and Clapperton with entire success. Other travellers soon followed their track, and their united labours have accumulated such a store of geographical knowledge that the old notions concerning the Sahara have happily been dispelled for ever.

The Sahara is now found to be traversed by high mountain ranges which rise in Asben to a height of 5000 feet above the level of the sea; and in some parts there are mountains covered with perpetual snow. There are also verdant valleys, and several are covered with trees of various kinds. In many places the country is well watered by rivers and torrents formed in the rainy season, and wherever there is moisture vegetation springs up. The climate is also exceedingly healthy and agreeable.

The Sahara is found to be inhabited by a great population of various tribes, who are
Boundaries of Western Sahara.

divided into several nations. They possess walled towns and well-cultivated plantations; they also engage in various branches of industry.

It is certainly proved that the most eligible route to Soudan is across the Sahara rather than through the pestilential forests and savage populations which are found between the west coast and the Niger. The road from Cape Juby is the most direct to the interior, as can at once be seen by a reference to the accompanying map. And I shall be able to prove, beyond the shadow of a doubt, that the proposed road is the most practical that has yet been brought before the public for opening a permanent communication with the populous regions of Soudan. But, in order to bring the question fully before the reader, it is necessary for me to give a general description of Western Sahara.

Boundaries.—The western portion of the Sahara is bounded on the south by the Upper Niger and Senegal, on the east by the Hoggar mountains, Aderar, and other districts; on the north by the Atlas mountains, and on the
west by the Atlantic Ocean. It is divided into several districts, each governed by a chief of the ruling tribe. The most important districts are Azawad, El Haha, Aderar, and El Hodh: these form the borders of El Juf, a district destitute of inhabitants.

The first district to the northward of Timbuctoo, and on the eastern border of El Juf, is Azawad, an extensive tract of country stretching to the north beyond Mabruk. It is considered as a sort of paradise to the Arab born in these climes, for in the more favoured localities he finds plenty of food for his camels and for a few herds of cattle, while the transport of salt from the mines of Taoudeny affords him the means of obtaining any articles he may stand in need of.

There are several small towns or villages in Azawad; the most considerable is Arawan, with a population of about 1500. Although small in extent, it is a very important place for this part of the world, and where a great deal of business is done, principally in gold. On account of this trade several Gadamis merchants are established here.
Quarries of beautiful Limestone. 203

The chief of the place is Sidi Mohammed. His military strength consists of 260 infantry and 180 cavalry. The people inhabiting this district are distinguished for their learning and intelligence, and they are the most ancient inhabitants of the locality about Timbuctoo. The whole country is tributary to the chief of the Hogar.

The town of Mabruk is a station for the Tawat caravans, but in former times it was very important for trade. It appears that the whole of Azawad had at one time been better inhabited than it is at present, for the ruins of former habitations are seen throughout the country.

Some of the valleys are covered with date-trees, and have good pasturage for cattle. Corn and tobacco are produced by the natives to a certain extent.

The country is traversed in places by several black and rocky chains of hills, covered in some parts with underwood; and they contain quarries of beautiful black limestone, from which the natives manufacture their heavy arm-rings. On the north
of Azawad there stretches a waterless desert of ten days' journey, called Tenezrufet. Beyond this the country assumes a more fertile character, diversified with hill and dale, with plenty of wells, and even temporary torrents, which empty themselves into El Juf.

El Haha is situated to the south of the Atlas mountains, and north of El Juf and Gidi. It is watered by the Draha, the greatest river of North-West Africa, which runs through its entire length. This river takes its rise in the Atlas mountains, to the north-west of the populous regions of Tafilet. From its source it takes a southerly direction into the Sahara: it then makes a bend, and slowly flows to the west, emptying itself into the Atlantic north of Cape Juby. Its western course appears to have very little elevation above the sea, for, during some portions of the year, the waters of the Draha are absorbed in the marshes or depressions through which it passes long before the sea is reached. But after the melting of the snow of the Atlas mountains, which takes place once a
year, its volume and current increase to such an extent that it forces its way to the ocean. A bar across the mouth of the Draha renders the river unfit for navigation.

Almost every part of the valley of the Draha is exceedingly fertile; corn is cultivated to a considerable extent, also a variety of vegetables, such as cabbage, turnip, carrot, onion, melon, tomato, pepper, garlic, &c. It is adorned with luxuriant plantations of date, orange, fig, pomegranate, peach, and apricots. The dates of these regions have long been famous in Europe, under the name of Tafilet dates; they fetch about 90s. per cwt. in our markets, but in the Draha 3 cwt. can be purchased for 1s. 6d.; this is on account of the expense of transit across the Atlas to Morocco; that being their only line of communication at present, and it is by these difficult roads that they receive their supply of European merchandise.

North of the River Draha the country assumes a more mountainous aspect, and the valleys are generally fertile. There is a remarkable pass through one of these moun-
tain chains, cut by nature through the solid marble of which the mountain is composed. The walls on either side of the pass rise perpendicular, and their faces are polished as if by the hand of man. A small stream of clear water flows through the middle, with its banks clothed with a carpet of luxuriant verdure. At the south-western entrance of the pass, a spring of carbonic acid bubbles continually to the surface, the water of which effervesces in one's mouth like champagne.

El Haha is perhaps richer in minerals than any other part of Africa. Gold, copper, silver, lead, iron and magnetic ironstone are abundant, and pieces of pure antimony may be met with on the surface of the ground an inch and a half in thickness.

Each district in El Haha is governed by a sheikh, assisted by a council composed of the oldest and most respected inhabitants. These small districts are generally independent of each other. The population of El Haha is said to number over 1,000,000, composed of mixed tribes, but the Berbers are the most numerous.
The houses comprising their towns and villages are constructed with remarkable architectural taste for this part of the world; they are built of compressed clay, with a flat roof, and two floors, having a spacious courtyard in the centre. Each town and village is surrounded with a high clay wall, and is further defended by a ditch.

The people are chiefly engaged in agriculture and commerce, and they rear large flocks of camels, horses, mules, asses, sheep, and goats. A small portion of the population is composed of Jews, who seem to be better treated here than in Morocco. They are generally employed as gunsmiths, tinkers, tailors, and shoemakers.

The principal districts to the west of El Juf, and to the north of the Niger and Senegal, are called Aderar, El Hodh, and Baghena.

Aderar is rather an elevated district, traversed by several chains of hills. There is a famous valley in these regions, called Khat, with whose excellency the wandering Arab is as much enchanted as a European
is with the most romantic spot in Switzerland and Italy. On the elevated ground on the east side of this celebrated valley the ancient town of Wadan is situated, surrounded by pretty plantations of date-trees. The town is composed of houses built of stone and mud, and has a population of about 5000—chiefly Berbers. The Portuguese opened a factory here in the fourteenth century, but abandoned it on the discovery of America.

This town is important as a station for caravans on their way north or south, it being on the main road to Timbuctoo. There are many other roads connecting Wadan with several large towns on the Upper Niger and Senegal.

The population of Aderar is principally composed of Berbers. The ruling tribe are probably the direct descendants of the founders of the Ghanata empire, and therefore the first civilizers of Soudan. They are numerous and powerful, and of great importance in the whole commerce between Morocco and Timbuctoo by the Wadan route, which is entirely in their hands.
Their chief, Mohammed El Mukhtar, can bring into the field over 2000 foot-soldiers, and an equal number of horsemen; by collecting the other tribes around him his forces would be much larger.

To the south of Aderar there is a large and well-favoured district called Taganet, which is separated from Aderar by ranges of hills running parallel with each other. The valleys formed between them are fertile, with numerous clumps of palm-trees, and excellent pasturage for cattle, but infested with elephants and lions. Mohammed Omer, a pure Berber, is the chief of this country.

The kingdom of Baghena comprises several districts to the south of Taganet, and to the north of the Niger; El Hodh, or the basin, is the most important. It is an extensive tract of country situated to the west of Azawad; it is surrounded by a ridge of rocky hills, at the extremity of which Walata is situated, and near its southern foot lies Tishit, both of which belong to El Hodh. Some parts of this country are watered by the backwaters of the Niger; rice grows wild here,
and could be cultivated to a very large extent. These districts are the most interesting portion of the interior of Africa to the student of history; here was the first seat of African civilization, and of an empire which extended over a great part of Soudan. It may be supposed that the Numidians were weary of their native homes in the Atlas; oppressed by the Carthaginians and Romans, and ravaged by the Vandals, they departed with regret from the glorious land of their birth, with a hope to find a more peaceful home in the regions of the south. On reaching El Hodh, in which they settled, they found a country well watered, fertile, and healthy, producing all that nature could desire. It is recorded that in the third century they founded in these regions the empire of Ghanata, with Walata for its capital. They were soon joined by Egyptians, who had doubtless been seeking a quiet home in a distant land. The arts and sciences which these people brought with them from their native country spread far and near. These were the first civilizers of Soudan, and the vast empire which they founded lasted
for a thousand years. In the thirteenth century, after a great struggle, the empire of Ghanata was conquered by the people of Bambarra, on the ruins of which they founded a new empire called Melle, from a word meaning free and noble. Although the new empire rose to great power, it was short-lived compared with its predecessor; it only lasted for about 300 years, for its feeble remains, which had nearly been annihilated by the people of Songhay, were extinguished, as it seems, in the early part of the sixteenth century, when the Arabs on the one side, and the people of Bambarra on the other, began to take the lead in these regions, while the Fellatahs, who were then only in their infancy, appeared in the background. The catastrophe of the extinction of the last remnant of the empire of Melle is not without interest; for a civil war having broken out between the royal princes, all the most powerful tribes in the neighbouring countries took part in the quarrel—one faction being formed by the people of Bambarra, who in the meantime had won Sego,
and the Fellatahs who had settled in these quarters, while the opposite party consisted of the Moroccam conquerors of Songhay, who had settled down in certain places of that vast empire, and who had intermarried with the natives. In this struggle the capital of Melle was destroyed; while the people of Bambarra took possession of the south-western portion of its dominions, the noble tribe of Mebarek rendered themselves masters of its north-eastern districts. Here they founded the kingdom of Baghena, with Kasambara for its capital, which they hold to this day. The government seems to be mild and liberal. They do not often change their sovereigns, for one of their chiefs named Omer reigned for forty years. Ali Mukhtar was the ruler in 1853. His army consists of about 7000 cavalry, and about the same number of infantry. The population is composed of mixed tribes, the Berbers being the most numerous, who have a peculiar custom of cutting their children’s hair on both sides of the head, leaving a tuft on the top. Of late, a great number of
Fellatahs have settled in Baghena, where they have formed several towns. Their chief, Ibrahima, seems to enjoy a good deal of authority. The people of Baghena are in alliance with Bambarra, as well as with several of the tribes of the north and west. The whole of Baghena deserves the attention of Europeans, for it is admirably adapted for fixed settlements. It has a fine climate, and hills and valleys, covered in many parts with extensive forests, also rich soil with abundance of water. The country is cultivated by the inhabitants to a considerable extent. The trees most common in these regions are the baobab and the date-tree; but to the west there are extensive forests of gum-trees. There are also several small lakes in that part of the country. A large quantity of the gum is collected by the Arabs, who bring it to the European markets. The yearly export of this article amounts to about 200,000l. The most important towns of Baghena are Walata and Tishit. Tishit lies at the foot of the rocky ridge which encircles El Hodh; it was founded about the third century. It has
several date plantations, and much salt is obtained not far from the town. In former times it was much larger than it is at present, but it has still an important market. The population is estimated at 3000 souls. It is said that very ancient manuscripts are deposited in this town. I have referred to this interesting subject in another chapter.

*Walata*, with a population of 6000, is situated at the extremity of a rocky ridge of hills, on the western borders of El Juf. It was once the capital of the Ghanata empire. The houses of the town are carefully built of a good species of clay, with a rough cast of plaster. The Berbers and Arabs are the chief inhabitants of the place; the town is excellently situated for trade, and at one time it commanded almost the whole trade between Western Soudan and the Mediterranean ports, but since the decline of the Ghanata empire a great part of the trade was removed to Timbuctoo. It has still a considerable commerce, it being on the main Wadan route. Some of its trade comes by way of Arawan, on the Tawat route. There are
several caravan routes between the town of Walata and the upper arm of the Niger. A considerable amount of gold passes through this place to the north. The natives turn some of it into handsome ornaments: these are much esteemed throughout Soudan. Not far from Walata there are the remains of a very ancient town, supposed to be much older than Walata. Gold is often found to this day among its ruins. It appears that the whole of Baghena and the surrounding countries have been more densely populated in former times than they are at present. The country stretching between Aderar and Cape Juby is called the Tiris. It forms the north-west boundary of El Juf. Inland it is said to be a vast plain, without much vegetation; near the coast and at Cape Juby, the country is covered with stunted bushes and a few trees, among which large flocks of camels, sheep, and goats find pasture. The western extremity of the Tiris, consisting of high sand-hills, extends from Sakiet El Hamra, north of Cape Juby, to Bojador; from Bojador the Tiris gradually descends into the immense plain of El Juf.
Flooding of the Sahara.—The most remarkable feature in the physical character of Western Sahara is the vast plain or hollow, called El Juf, which is said to extend from within twelve miles of the sea-shore to as far south as the regions of Azawad, and Walata on the north of Timbuctoo. The greatest length of this depression is given at about 500 miles, and the greatest breadth at about 120 miles, altogether covering an area of about 60,000 square miles. The breadth of El Juf is much greater in the south, but towards the northwest it seems gradually to get narrower, terminating in the great channel called by the natives Sakiet El Hamra, or Red Channel, which in former years connected it with the Atlantic Ocean.

Strange as it may appear, it is not uncommon to find deep basins similar to El Juf, in many parts of the earth's surface, depressed much lower than the sea. One of these depressions is situated in Tunis, behind the Gulf of Cabes; it is said to be 150 feet below the level of the Mediterranean. Another not less remarkable, called Assal, lies
to the south-east of Abyssinia; its surface is 750 feet below the sea level. And then again, in Syria, we find that the surface of the Dead Sea is 1300 feet below the level of the sea; while the beds of the bitter lakes through which the Suez Canal passes were found to be 50 feet. How these depressions were formed is a geological question upon which I do not propose to enter. There cannot be any doubt but that El Juf at one time formed part of the Atlantic Ocean, and that the connexion existed within historic times seems clear enough. Upon the cause which led to the drying up of the El Juf sea, the classic writers are not very clear. It is recorded by Diodorus Seculus that, according to ancient tradition, a lake called Hesperides, in the portion of the Sahara now occupied by El Juf, was suddenly dried up. Arab traditions point out that several depressions in the Sahara were covered with water in A.D. 681, but since the year 1200 the water gradually disappeared.

It is clear from research, and the physical character of the whole region, that the waters
of El Juf disappeared by the gradual accumulation of sand across the mouth of the channel or channels which formed the connexion between it and the Atlantic Ocean, and which finally cut off the water supply. Thus separated from the sea, the vertical rays of the sun would soon reduce El Juf to the vast salt region as it now appears. Shells, pebbles, and other marine remains are scattered throughout the entire district, bearing witness to the fact that its surface was covered at no remote period by the waves of the Atlantic. El Juf is a sterile region, destitute of vegetable and animal life. With the exception of the small village of Taudeny, situated on its eastern border, not a single human habitation exists throughout the basin. Taudeny is on the Tawat caravan route, where abundance of salt is obtained for the Soudan markets. The famous salt-mines of this place have been worked for 500 years. The salt dug here is formed of five layers; the upper one is of little use; the fourth is the most valuable, the colour of which is a most beautiful intermixture of black and white,
like a species of marble. The lowest of these layers is imbedded in salt water. The salt is quarried out in slabs; the largest are about three feet long by thirteen inches broad, and three inches in thickness, weighing about sixty-five pounds each. They are sold at Timbuctoo at the rate of about 1l. per cwt. The land round Taudeny is let out by the sheikh to the diggers in plots at a ground-rent. It appears that the whole of El Juf is a series of salt basins similar to Taudeny. One of these, situated in the western part of this depression, is about thirty miles long by twelve miles broad. Twenty thousand camel-loads of salt are extracted from it annually. No caravan ever ventures to pass through El Juf, although that route would be the most direct to the interior, but proceeds by its eastern and western borders—such is the awful sterility of this place. The bed of El Juf is said by the Arabs to be much lower than the ocean. According to the observation of Captain Riley and others, it would appear to be about 200 feet below sea level. It receives the drainage of the southern slopes of the Atlas, and the Hogar
and other highlands to the east, and the overflow of the Niger on the south, and the drainage of El Hodh and other regions to the west. These form extensive marshes in the winter months, around which the Arabs settle for four months during the spring to graze their cattle. When the waters that accumulate in El Juf during the winter months are nearly dried up, the ostrich, gazelle and antelope make their appearance; it is then that the ostrich is hunted by the Arabs, and when the plumage is most prized by them.

The Belta Valley, supposed to have formed the connexion between the Atlantic Ocean and El Juf, was placed by travellers to the south of Cape Juby; but the channel which resembles the one described by Captain Riley is situated to the north of Cape Juby, and called by the natives Sakiet El Hamra, the name of the Belta being unknown to them. Boca Grande, or Great Mouth, which forms the entrance, has certainly the appearance of a Gibraltar on a small scale. A sketch of it, drawn on the map, will give the reader a fair idea of this
Connexion between El Juf and the Ocean. 221

interesting mouth. Boca Grande is formed between perpendicular rocks rising to a height of about 200 feet above the sea, with a width of about two miles and a half, having a sand-bar across, about thirty feet high at the south end, and ten feet at the north, and about 300 yards across. In stormy weather, the waves break furiously against this bar; there is also a strong current setting continually against the shore, which caused the accumulation of sand that ultimately separated El Juf from the Atlantic Ocean. The Sakiet El Hamra channel appears to widen considerably inland; a range of mountains at a long distance from the shore stretch from north to south; but opposite the Boca Grande there is almost a perpendicular break of about fifteen miles. The bed of this channel is said to be encrusted with marine salt. Captain Riley, who travelled over many miles of this channel, says there could be no doubt, in the mind of any one who should view it, that the bank of this valley was washed and worn by the sea at a comparatively modern period; he also states that the channel was not more than ten miles wide.
where he passed it, but was very broad within, and extended a great way into the country, which seems clearly to prove that this valley was the north-west extremity of the great basin of El Juf, which got narrower as it approached the ocean. It is also stated that the banks of this channel rise to a height of about 500 feet, in some places perpendicular, with over-hanging cliffs. It would appear from these observations that the bed of the channel is about 200 feet below sea level, in which the sailors of Canary who know the place concur. It does not appear that much difficulty would be encountered in clearing away the sand-bar at the mouth, and admitting the ocean once more to cover its former bed. Breakwaters would require to be constructed at the entrance to aid in keeping it clear of sand. To carry out these works would perhaps form the most expensive part of the undertaking. If the waters of the Atlantic were once admitted into El Juf basin, the volume of the rivers which find their way into this depression would be considerably larger, because the evaporation would cause the rain-
fall to be much heavier in the surrounding countries. These rivers would cause a current to set out at the entrance which would aid very materially in keeping it clear of sand. It would be difficult to estimate the great results that would follow the successful accomplishment of the submerging of the basin of El Juf by the waters of the Atlantic. It would open up a navigable highway for the commerce of England and the whole world to the heart of Africa from a point in close proximity to our own shores. The North African slave-trade, with all its horrors, would disappear for ever in the face of legitimate commerce and civilization; the door for Christian missionaries would be opened, by which they could reach with effect the most intelligent races of Africa. From the evidence before me, I do not entertain a single doubt of the feasibility of letting the sea into the depression of El Juf, and its practicability is confirmed to a great extent by Consul Hay’s excellent report to our Government, which will be found in Appendix I. p. 251. But, before such a work could be entered upon,
it would be necessary that an accurate survey should be made of the whole district. To do this without first opening trade with the natives would be a most disastrous undertaking, unless force were used, which would not be desirable. The natives are naturally jealous and suspicious of any one visiting their country, unless it be for trade. Commerce once established with them, their confidence would be secured, and the whole country could be explored with safety. The port at Cape Juby would be most convenient for this purpose. I will enter on this subject more fully further on.

The population of Western Sahara may be estimated at two millions; some writers number them at three millions. They are composed chiefly of Berbers, Tawareks, Arabs, and Fellatahs; negroes are seldom met with in this country, except as slaves or occasional emigrants; a few Jews have crept round the northern borders, but seem never to venture into the interior. The Berbers, one of the great branches of the Atlas family, are the most numerous; they dwell in towns
and cultivate gardens, rear cattle, engage in manufacture and commerce. The Arabs, on the other hand, true to their vagabond instincts, traverse the open country with flocks and herds, having no settled habitation. The Berbers are in general well made, tall and thin, with well-cut features; their hair is long and their colour mostly yellow. A Berber village is built of stone, and presents the appearance of a single building, or rather a mass of heavy masonry, perforated here and there with a small window, and diversified with jutting and retiring angles. The flat roofs rise above each other in regular terraces, and none of the streets are open to the exterior; they are closed up with masonry, affording no entrance but by four narrow doors. In fact, there is no such thing as we should call a street, none being open to the heavens above; they are narrow, dark, often uneven passages winding under the buildings. The main object in construction seems to have been to pile the houses compactly together, avoiding exterior openings which might serve for the admission of an enemy,
and crowding as many human beings as possible in a given space. The most interesting structures are the sepulchral chapels which stand outside the walls of the village. These are generally square, and surmounted by a cupola, the whole being of stone or brickwork. Some of the principal cupolas are flanked by four secondary ones, the interior presenting a court surrounded by a gallery supported by Moorish arcades. The ostrich egg crowns the summit of these pyramids. The villagers reserve all the luxury and magnificence of their architecture to adorn the little temples, around which they excavate their last resting-places. These are not like the habitations of the living, subject to the ravages of invading foes, for they are held sacred, and the conqueror, red with blood, approaches these sanctuaries with reverence, and prostrates himself in lowly worship. The Berber villager does not care to lavish wealth on his dwelling, in which he may only remain for a day; he reserves all his solicitude for that which will shelter him for ever from the storms of life. The Arab dress is used by the Berbers;
they shave the head, preserving only the lock of which the angel of death is to lay hold, and carry them to paradise. The women's dress consists of a white woollen shawl and a kind of frock without sleeves; slippers and a silk girdle compose the dress of the wealthier females; necklace, bracelets, and rings complete the dress of a woman of quality, who, besides, stains her eyelashes black, and gives a yellow colour to her nails, the palms of her hands, and the instep of her foot with a decoction of lausonia inermis. The Berbers do not marry more than one wife, who goes about unveiled, and is allowed unlimited liberty, which it is said they never abuse. The Berber loves his independence, but, when once he has acknowledged a mightier power, he respects the oath that he has sworn. The distinguishing features of his character are pride, patriarchal reverence for parents, patience, obedience to all constituted authority, and cordial hospitality towards strangers. Holy persons are held by these tribes in great veneration, and often canonized during their lifetime, and their offspring are looked upon
as saints. They are fond of tales, and a good story-teller is welcomed and feasted under every tent, where the family, sitting round in a circle, listen with avidity to tales in which the Deity is continually represented as revealing Himself to man by miraculous interferences. Their tents are made of camels’ and goats’ hair woven together by the women.

The Tawarek is the next great tribe in Western Sahara, said to be a branch of the Atlas family, of which the Berbers are the main stem. They are more singular in their habits and appearance than any of the other tribes of the Sahara. They are tall, some of them gigantic, generally slender and nimble, with a white skin, and features resembling Europeans. A large proportion of these people are engaged in pastoral pursuits, while others devote themselves to commerce. They have large towns on the frontier of Soudan, and in the Hogar and Asben mountains, which serve as depôts. Their language is a dialect of that spoken by the Berbers. The Tawarek houses, unlike those of the Berbers, are circular, and stand far asunder.
so that they spread over a considerable space. They are built of small stones mixed with red earth; a dome of thatch forms the roofing; and, as a security against the wind, each dwelling has four doors—one looking to each point of the compass. Wells are constantly supplied with water, and there are cisterns to receive that which falls from the clouds. Fidelity and hospitality seem to distinguish these people. Those who commit themselves to their protection will be defended with the last drop of their blood, and nothing is so offensive to the high-minded Tawarek as to be distrusted. Throughout the length and breadth of the desert they carry the merchants' letters unsealed, yet sacredly inviolate. If an inquisitive person asks to see them, he is peremptorily informed that it is prohibited to read these documents.

The dress of the Tawarek consists of wide trousers, and a variety of loose cotton gowns with wide sleeves. Whether in town or tent they wear at least three of these garments, the outermost of which is ornamented with rich embroidery in gold, forming
pretty designs, and particularly heavy on the left breast and the right shoulder-blade. When they go to the open country they add two other gowns of dark blue colour, with a scarf thrown over the shoulder. They wrap a thin piece of cloth round the head, covering the forehead, the eyes partially, and the mouth and chin. A huge spear is carried in the right hand, the dagger is fastened under the left arm, and the sword swings behind. Like the Berbers, they only marry one wife. Their women's dress is simple, consisting merely of a chemise and short-sleeved frock, with a cloak. They wear bracelets, anklets, and other ornaments. The Berbers and Tawareks were no doubt Christians before the Arab invasion, for we find that the cross is the favourite pattern of their dress and the design of their ornaments. The Arabs look upon the whole race as heretics, and they are called by them the Christians of the desert. Another point of civilization in which these races are in advance of the Arabs is, that spoons are in very general use among them. These are made of wood, and
exceedingly neat, as the accompanying woodcut shows.

There are a few Marabout tribes in Western Sahara, who, by their nobility, wealth and sanctity, exercise a powerful influence throughout the country, in token of their aristocracy. They dwell in tents of black woollen fabric, surmounted with ostrich plumes, of which the size varies according to the rank and fortune of each family. To a religious scrupulosity that would tremble at a drop of prohibited medicine falling on their garments they add a spirit of commerce
which is arrested by no difficulty and daunted by no peril. They pray five times a day, yet they make no scruple about buying and selling the unfortunate negro, and this traffic in human flesh is the most lucrative branch of their commerce. In their old age they pass their time in devotional exercises.

The principal food of the inhabitants of Western Sahara consists of dried dates, barley-meal, milk, and butter. These are made into various palatable dishes; while the rich indulge sometimes in animal food, such as goats, sheep, or gazelles.

The chief productions of Western Sahara consist of date, barley, millet, almonds, gum, copper, gold, silver, lead, iron, antimony, sheep, goats, asses, horses, camels, gazelles, and the ostrich. Although there are many kinds of trees growing in this country, the palm which produces the date is the most useful. Not only is its fruit eaten by man and beast, but all articles of carpentry are made of the wood of it, and it is often used as fire-wood where it is plentiful. By cutting off the higher branches, and boring a hole in
The Date-Tree.

the stem, into which a reed is introduced, a highly-esteemed beverage is obtained, in quantities of about fourteen gallons daily. The fibrous net-work which surrounds the branches, where they attach themselves to the stem, is twisted into strong tough ropes, with which the camels are tethered; it is also made into baskets of various kinds. Thus the native derives from it food, drink, habitation, and almost every utensil he employs. The Cerestes, or horned viper, is found here. It lives in the dryest and hottest part, and lies mostly half buried in the sand. Its colour is pale brown, and it can exist for a long time without water. Its length is two feet. The ostrich is the most interesting bird in the Sahara; it is prized for its beautiful plumage. When hunted, this bird runs so swift that the fleetest horse cannot overtake it unless stratagem is used. If followed up too eagerly, this chase is not destitute of danger, for a huntsman has sometimes had his thigh-bone broken by a single stroke from the wing of a wounded ostrich. The white feathers, so highly prized by the
ladies of Europe, are found on the tail of the male bird. The food of the ostrich consists of the tops of various shrubby plants. This bird is so easily satisfied in regard to water that he is constantly to be found in the most parched and desolate tracts which even the antelopes and beasts of prey have deserted. The ostrich feather forms a considerable article of export. Gazelles are very numerous in the Sahara, and their flesh is much prized by the natives. Their skins are tanned, and made into various useful articles. There are extensive gum-forests in the southern part of Western Sahara. The gum is collected by the natives. The annual value of the export of this article alone is about 200,000l. The women throughout these regions are exclusively engaged in the manufacture of woollen fabrics, which they make into dress. It is certain that the merit of a wife in this country is estimated by dexterity in weaving rather than by personal charms. In every part of the Sahara the women attempt manufacturing, as the supply of manufactured goods from Europe is not equal to the demand.
The plan for opening direct communication with Soudan.—I have already pointed out the feasibility of admitting the waters of the Atlantic into the depression of El Juf by removing the sand-bar at the entrance of its channel, north of Cape Juby. I have also pointed out the practicability of opening direct intercourse with Soudan and Western Sahara, from Cape Juby, by the Wadan caravan route. To make the necessary survey of the basin of El Juf, and open commercial communication with the interior, all that is necessary is to establish a station at Port St. Bartholomew, Cape Juby, which is admirably situated for this purpose, as may be seen by a glance at the sketch on the map. It is formed in a small bay, by a reef stretching out from Cape Juby to a distance of about a mile and a half southward. This reef is formed of rock, and runs parallel with the shore, which makes a gradual bend inward from the Cape. Several portions of the reef are visible at low water, and at that state of the tide the water inside is as smooth as a lake, having an average depth of about ten
The New Route to Soudan.

feet, with twelve feet at the entrance, which is about half a mile wide. At high water it has an average depth of about eighteen feet. At this state of the tide a line of surf marks the position of the reef, having only a small portion visible at the south end. The port is sheltered from almost all weathers, having Cape Juby on the north, the reef—which forms a natural breakwater—on the west, the mouth being covered by a small cape, which juts out on the south. There is abundance of sandstone of superior quality on the seashore, suitable for building purposes. A plentiful supply of water for culinary purposes could be obtained from a well on the shore. Port St. Bartholomew has the advantage of being situated within about 80 miles of the Canaries, and within 1600—or nine days' sail—from England. The English line of steamers for the west coast of Africa call at the Canaries once a week on their outward and homeward voyage. These would convey goods to or from the port at Cape Juby for the usual freight charges. The great importance of the route from Cape Juby to Tim-
buctoo and the other markets of Soudan cannot for a moment be doubted. A glance at the accompanying map will be sufficient to convince the greatest sceptic.

I have already pointed out that the present system of communication with Soudan is across the Sahara, from the ports of Morocco, Algeria, Tunis, and Tripoli; and that the caravans which proceed by these routes have to travel over 2000 miles of mountainous and troublesome country before Timbuctoo—the nearest market of Soudan—is reached; and that it occupies almost a whole year to make a double journey. The distance between Cape Juby and Timbuctoo, by the Wadan route, is about 800 miles, and that of almost level country. This direct route is therefore 1200 miles shorter than the present roads.

It is clear from these facts that the whole trade of Soudan, amounting to about four millions a year, would soon be diverted to Cape Juby without any outlay on the present road. The Wadan route from Cape Juby to the interior has the advantage of having forty-two stations or resting-places on the road, with
abundance of water. Not only is the Wadan route the shortest and easiest to Timbuctoo, but it is the most direct for the markets of Sego, Sansanding, Jenni and other towns on the Upper Niger, as may be seen by an inspection of the map, for there are not less than sixteen caravan routes connecting the towns of Wadan and Walata with the markets of the Upper Niger. European goods poured into Wadan from Cape Juby would supply the markets of the Upper Senegal, while those poured into Walata would supply the towns of the Upper Niger, and Timbuctoo would form the great central market for the surrounding states. Since the Niger and its tributaries can be navigated from Port Kabara, the harbour of Timbuctoo, for thousands of miles east, west, and south, by this plan, therefore the present trade of 4,000,000l. would soon be increased to 12,000,000l. Another point in favour of Cape Juby as a commercial station is that it is situated several degrees north of the tropic of Cancer, and that the climate of these regions is as healthy as that of Madeira and Canary, suitable for any
European. Indeed, there can be little doubt that, if once a station was formed at Cape Juby, it would soon be resorted to by invalids and others for the benefit of their health. I have already stated the great danger that would have to be encountered if an exploration was attempted to be made of the basin of El Juf or its channel without first opening up trade with the natives, who naturally look with suspicion and distrust upon any one visiting their country, unless it is for commerce. For instance, while Rohlf was making his way through Tafilet to Algiers, he was taken by the natives for a spy. They examined him, and unfortunately they found on his person an old passport which they took to be a paper relating to a conspiracy to sell their country to the Emperor of the French. He was immediately dragged before the sheikh, when with some difficulty he cleared himself from the unfounded imputations brought against him. By establishing a commercial station at Cape Juby, the goodwill and confidence of the natives would be secured, as well as their co-operation in mak-
Importance of Treaty with Saharan Tribes. 241

...ing an exploration of their territory. The people on the coast and in the interior are very friendly to the English, and would hold out every encouragement for opening up trade. The formal consent of the chiefs and people for forming a station at Cape Juby has already been obtained, and there would be no difficulty in making a treaty with the chiefs of Aderar and Baghena for protecting the Wadan route to Timbuctoo, because it would obviously be to their interest to enter into such an engagement. The whole of the tribes of Western Sahara could in a little time be united and brought under the protection of a civilized power, who would thus gain possession of the very gate to inner Africa, by which direct intercourse could be held with at least thirty-eight millions of people, who are in a manner isolated from the world. Dr. Barth points out the great importance of entering into a treaty with the people of the Sahara for opening the interior regions to commerce, because the chiefs can be depended upon to provide plenty of camels for transport, and insure the safety of merchandise.
Dr. Schweinfurth is of opinion that the only practical means by which the slave-trade can be abolished, and commerce and civilization advanced in Africa, is by uniting the tribes under one administration on the European principle, the highest posts to be filled by Europeans, and to place it under the protection of a European Government. Western Sahara, holds out every advantage that can be desired for forming a powerful organization of this nature, that would make its influence felt throughout a great part of this vast continent.

The description I have already given of Sudan will show the reader the great importance of opening up direct communication with that country, which has a population of the most intelligent and energetic of all the African races. That they are anxious to hold direct intercourse with Europeans is amply proved by every successive traveller who penetrated into these regions, and which is further confirmed by the following speech made by

1 See Dr. Schweinfurth's "Heart of Africa," vol. ii. p. 439. Sampson Low and Co.
the Sultan of Sokoto to Clapperton:—"You say true that we are all sons of one Father; you say also that the sons of Adam should not sell one another, and you know everything. God has given you all great talents, but what are we to do? The Arabs who come here will have nothing else but slaves: why don't you send us your merchants?—you know us now—and let them bring their women with them and live amongst us, and teach us what you talk to me about so often—to build houses, boats, &c."

The results that would follow the establishment of the proposed station at Cape Juby are of the highest importance to our own and other countries, and to the amelioration of a great section of the African race. Its accomplishment would open a market of great magnitude, in a healthy part of the African coast, within nine days' sail of England. An exact exploration could be made, with comparative ease and security, of the basin of El Juf and the channel or channels which once formed the connexion between it and the Atlantic Ocean. It would also materially
aid to abolish the African slave-trade, which forms the darkest and most horrible chapter in the history of this vast continent. The proposed station at Cape Juby would also be the means of uniting the West Saharan tribes under one administration, protected by a great civilized power, which would insure security and justice to all, and would open the door for Christianity in a land not yet visited by any Missionary.
AN OBELISK AND ANCIENT MANUSCRIPTS
IN THE SAHARA.

CHAPTER XIII.

The Era to which the Manuscripts and Obelisk may probably belong.

In Appendix I. will be found a letter addressed to me by his Excellency Sir John Drummond Hay, British Minister at Morocco, in reference to a note and sketch-map which he enclosed from the learned archaeologist, M. Tessot, the French Minister at Morocco. The note states that a collection of ancient manuscripts are deposited in the town of Tishit, situated about 300 miles north-west of Timbuctoo, on the Wadan route. It is regularly visited by caravans on their way to Timbuctoo and back. The note also refers to a stone obelisk, about 300 miles east
of Bojador, which is said to be covered with inscriptions. Sir John Hay thinks that they are of a Libyan character. It is also stated that the natives have often tried to pull it down, but have failed, it being planted very deep in the earth. These inscriptions might refer to the conquests of the Carthaginians in Numidia, and if so would throw a great light on their exploits in these regions, which they possessed for seven centuries. It is evident from the characters that it does not belong to the period when the Romans held this part of Africa, and they were the last civilizing power who ruled this country. It is therefore reasonable to suppose that the obelisk belongs to the Carthaginian era.

The ancient manuscripts might, I would suggest, either be the remains of the Carthaginian libraries or Arab manuscripts. If they were found only to belong to the latter, they would still be of interest and value, because they might enlighten us on many points of ancient history or geography. Soudan in former times produced many men of great learning and literary ability. Dr.
Barth, while visiting these regions, had an opportunity of consulting an old manuscript on the history of the states of Soudan, and his quotations from it will be found both valuable and interesting. During his stay in Masena he met with the learned Arab already mentioned, who took a great pleasure in talking about history and science. He enjoyed sitting in the daytime in the midst of a heap of manuscripts; and although he could no longer read them, yet he was delighted to touch them with his hands. Many years ago a writer said that the day would come when the texts of the classics would be emendated from manuscripts brought from Soudan.

The Carthaginian libraries, as is known from history, were not destroyed by the Romans when they conquered Carthage. Scipio Africanus presented the libraries, with the exception of twenty-eight volumes on husbandry by Mago, to the Numidian chiefs who aided him in the total destruction of this famous city, 146 years before the Christian era. No doubt jealousy caused the Roman
general to hand over these valuable volumes to their allies, for he seemed anxious to avoid bringing any records to Europe that would inform the people of the mighty achievements of their rivals in Africa. Such was the Roman jealousy that their writers do not seem to have made extracts from or comments on any of the works of the Carthaginian authors, except a few extracts from Mago and Hanno's works. Carthage had flourished for 700 years, and was once the mistress of the commercial world. Its destruction was certainly a great stain on the Romans, for there never was afterwards so great or civilized a native power in North Africa. Its colonies beyond Gibraltar were forgotten, and the key to their discoveries and extensive trade was lost since the Romans gave its libraries to their Numidian allies. Sallust and Pliny are the only ancient writers who refer to these manuscripts. Sallust tells us that King Hiempsal had a collection of Carthaginian historians, from which he derived some information on the early history of Africa. Pliny mentions a
collection of African chronicles compiled by Juba, and extracted from Punic, Libyan, Greek, and Latin authorities; these works are, however, lost. All that we know of the Carthaginian empire is principally derived from Roman historians. We have only a very confused idea of the exploration of the western coast of Africa by Hanno. The Carthaginians doubtless had records of all their achievements, and possessed more information about the interior of Africa than we have obtained up to the present time. After the decline of the Roman empire, Vandals and others invaded Northern Africa and drove the Numidians south, towards the Upper Niger; and there they established a kingdom of considerable importance called Ghanata, in the neighbourhood of Timbuctoo, with Walata for its capital, and Tishit—where the manuscripts are said to be—was one of its provincial towns. Arab historians inform us that in the third century a kingdom was formed in the neighbourhood of Timbuctoo by white people, who emigrated from the north, evidently the
Numidians, who were driven by the invader to seek a home south of the Sahara. It is said that one of their chiefs had a library of 1600 volumes. The present inhabitants of this country, being of Numidian origin, the manuscripts may prove to be some of those presented to their ancestors about 2000 years ago. Should these manuscripts prove to belong to the Carthaginian era, their recovery would be the greatest wonder of the age. When I visit the Western Sahara again I shall endeavour to obtain possession of some of these ancient relics, and also try to discover the obelisk, and get an impression of its inscriptions.
APPENDIX.

I.

A Report to the Foreign Office by Her Majesty's Consul at Mogador.

Mogador, Sept. 7, 1875.

Notes on trade between Morocco and the Soudan, and the physical character, &c., of the country lying south of Wadnoon, on the road to Walata and Timbuctoo:—

The Akabar, or caravan, from Morocco is the largest that crosses the desert to Timbuctoo. It starts once a year, about the month of October, from Tendoof on the confines of the desert, and amounts to over 10,000 camels; only twenty per cent. leave that station laden with goods. The others proceed to Taudeny in the centre of the desert, where they are laden with rock salt for the Soudan. There are, besides, several small Akabars which cross the desert during the year, averaging about 100 camels each. The merchandise carried to Soudan from the country consists of the following goods:—
Appendix I.

Blue sallampore.
American cloth.
Long-cloth.
Sugar, tea.
Glass beads.
Amber beads.
Shells.
Silk from Fez and Morocco.

Produce of Soudan.

Gold.
Ostrich feathers.
Ivory.
Gum of Senegal.
Gum Arabic.
Incense.
Soudan blankets.
Slaves.

The average value of merchandise carried by each camel crossing the desert is 50\%. The approximate value, therefore, of the Morocco goods by the great Akabar can be estimated at 100,000\%; add to this sum 30,000\%, the value of small caravans, and the total value of merchandise sent yearly from Morocco to Timbuctoo is 130,000\%. Upon this sum a profit of seventy-five per cent. is made by the traders of the Soos camels, which carry salt from Taudeny to Timbuctoo. Sixty per cent. are sold at that place, as comparatively few camels are required for returning with the light Soudan goods.
The value of Morocco Caravans.

There is no regular Akabar that starts from Timbuctoo. The great caravan is broken up at that city, and traders return in small parties to their different countries. There are four routes to Timbuctoo from Wadnoon.

1st. Viđ El Hammada, Tindoof, Tzidy, Taudeny and Arawan.

2nd. Viđ El Borjle in the Oolad Boo, Oshra, Aween, Tirkis, Aits, Oosha and Walata.

3rd. Viđ Amaget, Teeky, Oolad, Oolad Tedlary, Oolad Dlima, Tiris, Wuaddy, Gedama and Walata.

4th. Viđ Teesity and Walata.

It will be observed that the third route mentioned passes through Tiris and the borders of El Juf.

The following information has been collected from traders who have travelled by that route to Timbuctoo, and from natives of the Zawaja tribe.

Length of journey by the desert camel or Begowy from Wadnoon to Timbuctoo:

<table>
<thead>
<tr>
<th>Route</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wadnoon to Tiris</td>
<td>12</td>
</tr>
<tr>
<td>Nammaddy to Gedama</td>
<td>3</td>
</tr>
<tr>
<td>Gedama to Walata</td>
<td>3</td>
</tr>
<tr>
<td>Walata to Timbuctoo</td>
<td>10</td>
</tr>
</tbody>
</table>

28 days.

By ordinary camel about sixty days. The tribes inhabiting the country from the Draa to El Tiris are warlike and independent, and would oppose the progress of Europeans into the interior of their country.
The Oolad Sheikh's (Beiruck's) authority extends to the Tiris. The country along the borders of the Wad Draa and the Sakiet El Hamra is very fertile. The western extremity of the Tiris, consisting of high sand-hills, extends from the Sakiet El Hamra to Bojador. From Bojador the Tiris gradually descends into an immense plain called El Juf. The length of El Juf is twelve days by desert camel (about 500 miles), the breadth two days (about 120 miles). El Juf extends from the coast near Bojador to the district of Nemmaddy. The borders of El Juf are inhabited for four months during the spring, when the Arabs settle at that season to graze their cattle round the Grlatzy or marshes formed by the rain-water of the winter months. The amarad (gum Arabic plant) grows in El Juf. The Arabs do not know of any river called Belta near Bojador, but they state that a river is formed by the sand-hills in that neighbourhood, which dries up in the summer. The tribes that encamp round the borders of El Juf during the spring are from Taganet or south:

Ahal Breek Allah.
Wooled Ahal Atzmanu.
Dee Bushatz.
Zoowich.

From the west:
Ahal El Hodh.
Oolad Dleim.
Aroseen.

When the waters that accumulate in El Juf during
The winter months are nearly dried up, the ostrich, gazelle, and antelope make their appearance; it is then that the ostrich is hunted by the Arabs, and when the plumage is most prized by them. The Arabs declare that the sand-hills which separate El Juf from the sea are lofty, and that the hollow of that plain is much below the level of the ocean. They calculate the distance from the sea-coast to El Juf across the sand-hills to be about twelve miles; further, that El Juf does not extend beyond the Nemmaddy and Gedama country, which is hilly and stony.

**General Remarks.**

The Arabs of the desert are divided into three large tribes:—

The Zowaja.
El Lahma.
Arab Hassan.

The Zowaja are a harmless tribe. El Lahma are warlike and wealthy people, and support and protect the former. Arab Hassan have a bad name; they gain their livelihood by cattle-lifting and attacking caravans on the road to Timbuctoo via Tiris. It is worth mentioning that fresh water is found close to the surface of the earth from El Juf to Gedama, salt water from Gedama to Walata, and fresh water again from Walata to Timbuctoo. The mortality in caravans from the fatigues and hardships of the desert has greatly decreased of late years, which Arabs ascribe
to the salubrious effects of tea, which is now drunk by all persons crossing the desert.

(Signed) R. Drummond Hay.

An Obelisk and Ancient Manuscripts in the Sahara.

British Legation,
Tangier, Dec. 20, 1875.

Dear Sir,—The French Minister at Tangier, Monsieur Tessot, who is a learned archæologist, having heard of your intention to survey the district in the vicinity of Cape Bojador, has kindly communicated to me the accompanying note containing curious information regarding the existence of an obelisk about 200 miles from Cape Bojador. This monument is said to be covered with inscriptions, which I conclude are of a Libyan character. M. Tessot also states that a large number of manuscripts are supposed to exist at Tishit on the road to Timbuctoo.

I further enclose a sketch of the country between the coast and Timbuctoo, showing where Tishit is situated, and also the site of the obelisk.

I remain, dear Sir,
Yours faithfully,

(Signed) J. H. Drummond Hay.

(Translation.)

Legation of France
in Morocco, Tangier.

Note.
From the accounts of Moroccan caravaneers who
M. Tissot's Note.

have made the journey from Angelmin to Wadan, there exists on this route, in the Sahara, a stone obelisk, deeply planted in the ground, and covered with inscriptions. The natives have frequently tried to overturn it, but without success.

From the accounts which I have previously mentioned, it appears, the obelisk is situated under the latitude of Cape Bojador, at about sixty-eight leagues from the Cape, and about the same distance from Angelmin, in the fourteenth degree of longitude.

These same accounts affirm that there exists at Tishit, on the route from Timbuctoo to Arguin, a depot of more than a thousand very ancient manuscripts.

Tishit is about midway on the route between Arguin and Timbuctoo.

(Signed) C. Tissot.

Tangier, Dec. 17, 1875.

Letter from Sir John Walsham, Bart., Chargé d'Affaires, to Mr. Mackenzie.


Sir,—In reply to your letter of yesterday, I beg to inform you that I have to-day laid before the Minister for Foreign Affairs the matter to which it refers, and he informed me he would give it his best attention, but he could not, he said, give me any decided answer as to quarantine regulations and the appointment of a consul, until he had been enabled s
to consult with the other members of the Cabinet, some of whom were still absent.

For the moment I am afraid I shall not be in a position to render you any further assistance, but you may be assured that I shall further your wishes as far as it may be in my power to do so. If you will be so good as to furnish Mr. Kennedy or myself with your address after you leave Madrid, I shall not fail to acquaint you with any decision which may be taken by the Spanish Government with respect to your project. . . .

Yours faithfully,

JOHN WALSHAM.

Extracts from communications received by Mr. Mackenzie from the British Consul and Vice-Consul at the Canary Islands.

TENERIFFE, April 9, 1876.

SIR,—I have this morning received a letter from the Vice-Consul at Las Palmas Grands. . . . . The great probability is, according to the opinion of the Vice-Consul, that most of the merchants at Las Palmas would engage in trade with the proposed commercial station. The Vice-Consul concludes thus: "I have been requested by the 'Sociedad di Amigos del Pais' to offer Mr. Donald Mackenzie its sincere and cordial assistance should he call here."

I am, Sir, your obedient servant,

HENRY G. GRATTON.
John T. Thopham, Esq., British Vice-Consul, Lanzarote, reporting on the above question, 17th April, 1876, states:—"There can be no doubt that the merchants of this island will only be too glad to avail themselves of the advantages that a commercial mart in near proximity to this town may offer for buying and selling, especially as the natural influence will be of finding a more general assortment of articles than are to be found either in Canary or Teneriffe."


I made a careful examination of the coast of Africa from Cape Bojador in the south to the great mouth in the north, a coast-line of about 200 miles in extent. There are several places where a safe landing can be made on this coast at certain seasons of the year, but I could only find one safe harbour, which is situated in lat. 27° 52' N., long. 12° 53' W., and is called by the sailors of Canary "Matas de San Bartolomé" (Trees of Saint Bartholomew). This port is formed in a small bay by a reef stretching out from Cape Juby to a distance of about one mile and a half southward. This reef is formed of rock, and runs parallel with the shore, which makes a gradual bend inward from the Cape. Several portions of the reef are visible at low water, and at that state of the tide the water inside is as smooth as a lake, having an average depth of 10 feet,
with 12 feet at the entrance, which is about half a mile wide; at high water it has an average depth of 18 feet, with 20 feet at the entrance. At this state of the tide a line of surf marks the position of the reef, leaving only a small portion visible at the south end. The port is sheltered from almost all weathers, having Cape Juby on the north, the reef (which forms a natural break-water) on the west, the mouth being covered by a small cape, which stretches out on the south. On some parts of the shore inside the reef are layers of sandstone of superior quality, about a foot thick, running out towards the sea. This stone is excellent for building purposes. We observed a well about a quarter of a mile from this port; it supplies the tribes who inhabit these regions as well as their flocks, which are numerous, with water. This well has the appearance of having been dug by the natives, and has a depth of about three feet. I may state that the climate of these regions is excellent and well suited to the European constitution. The greatest heat we experienced was not more than 116 degrees in the sun. The average heat in the sun would be about 81 degrees in the months of June, July, and August. From Cape Juby we made short excursions into the interior. The portion of the desert traversed by us is composed of sand, rock, and clay. The vegetation consists of bushes and plants of various kinds and wild grass, among which large flocks of sheep, camels, and goats find pasture. There are also trees on some of the hills, which grow to a height of about fifteen feet.
I may state that travelling in this country is exceedingly pleasant.

The tribes who inhabit these regions are not of the negro race, but seem to belong to the Berbers, who were the original inhabitants of the Atlas mountains, and were driven south by the Moors. Their occupation is keeping flocks, cultivating the land, and hunting. They are also eager traders. Many of them are tall and handsome, having good features and of simple habits, and not so bigoted as the Moors of Morocco. Their dress consists of loose blue garments; some dress in other colours. Almost all of them possess a double-barrelled gun of French manufacture. They have also superior daggers of native make. I made a priest and his father, who is a chief in the interior, a present of an Arabic Bible each, with which they were very well pleased. The priest offered me two rams for them, but I informed him that I was unable to accept them. The Bibles were kindly given by the British and Foreign Bible Society.

I may here state that we made certain examinations of the mouth of the channel, which it is supposed once formed the connexion between the Atlantic Ocean and the depression in the Sahara called El Juf. The description of this channel answers fully the description given of it by Captain Riley. The mouth of it, which is called "the great mouth," is situated about thirty miles north of Cape Juby. The entrance is about two miles and a half wide, with a sand-bar across, about thirty feet high at the south end and ten
feet at the north. The cliffs on each side rise to a height of about 200 feet perpendicular. This channel widens inland. A range of mountains at about twenty miles from the shore stretches from north to south, but opposite the great mouth there is a break in this range of about fifteen miles. This answers Captain Riley's account, for he says that the channel was about ten miles wide where he passed it, and remarks that it widens considerably inland; he also says that the cliffs on each side of the channel rise to a height of about 500 feet perpendicular. The bottom is encrusted with marine salt. It would appear from these observations that the bed of this channel is about 200 feet below sea level, in which the sailors of Canary, who know the channel, concur.

I made a close examination of the mouth of this channel, having approached to about 100 yards of the sand-bank, which, I think, is not more than 300 yards across, and could be easily cleared away. The British Vice-Consul of Lanzarote went with me to view it. I was most anxious to make a thorough examination of this channel, but the surf was too heavy to admit of it. We made several attempts to land without success. The only way by which it could be successfully accomplished is by going from the port at Cape Juby by land, but the natives were unwilling to allow this, unless trade was commenced with them at once, stating that they were anxious to have a market opened. I therefore called a meeting of the chiefs and people, at which the British Vice-Consul was present. At this
meeting the chiefs agreed to permit me to form a settlement at Cape Juby, and open the port for trade. The British Vice-Consul made a certificate of what passed at this meeting. Our intercourse with these people was of the most friendly character, they expressing a wish that we might soon return.

The importance of the port at Cape Juby as a trading-station will at once be seen when we consider the present tedious system of transport between North Africa and Soudan. Soudan, the country with which it is proposed to hold direct commercial intercourse from Cape Juby, is the most important portion of the great African continent, as is clearly proved by the researches of eminent travellers, such as Dr. Barth, Denham, Clapperton, and others. It is bounded on the south by Equatorial Africa, on the west by the Kong mountains, on the east by Kordofan, on the north by the Sahara Desert. Soudan is divided into several extensive kingdoms, the principal being Bambarra, Massina, Gando, Houssa, Bagirmi, Bornu, Sokoto, and Darfur. The chief towns are Timbuctoo, Sego, Yowara, Rabba, Kano, Sokoto, Massina, Kuka, Say, and Hamda-Allhi. The population of Soudan is estimated, by Keith Johnston, LL.D., at 38,800,000, and the people are the most intelligent and industrious of the whole African race. They are most anxious to hold direct commercial intercourse with Europeans. The Kong mountains and the general unhealthiness of the west coast preclude any traffic from that quarter, hence it
is that the only markets from which they receive manufactured goods are Morocco, Algeria, Tunis, and Tripoli. Caravans proceed from these ports once every year, taking circuitous routes across the Atlas mountains and the Great Desert of Sahara, travelling a distance of about 2000 miles before Timbuctoo, the nearest market of Soudan, is reached, where the small supply of goods they bring with them are sold at immense prices on account of the expense of transit.

The annual value of the trade between the ports of North Africa and Soudan is approximately estimated at 4,000,000£. The port at Cape Juby would command in a reasonable time the whole of this trade, since the distance from this port to Timbuctoo on the Upper Niger is only about 800 miles of almost level country, thus about 1200 miles shorter than the present roads. Caravans proceeding from Cape Juby would make three journeys a year with greater ease than one by the present routes. This port is also very convenient for the European markets, it being distant only about 1500 miles from England, and eighty miles from the Canary Islands. The opening of the port at Cape Juby would be the means of gradually destroying the slave-trade between North Africa and Soudan, as well as sending civilized influence into the interior of this vast continent. The port will also serve as an excellent basis from which an exploration can be made with safety, of the great depression called El Juf, since commerce carried out on just and equitable terms will gain the confidence of the natives, and destroy jealousy that would make
travelling dangerous in these regions, unless the people benefited commercially by it. I may here state that in a report I received from the Foreign Office the Arabs declare that the depression called El Juf is about 500 miles long and about eighty broad, and that it is much below the level of the ocean.

It may be mentioned that there is an excellent fishery along the north-west coast of Africa; those who engage in it at present are only the fishers of Canary. Cape Juby would form an excellent fishing-station. In order to facilitate the trade between the Canary Islands and the port at Cape Juby it would be necessary to obtain a concession from the Spanish Government, abolishing the strict sanitary regulations that are now in force. Sir John Walsham, the Secretary of the British Legation at Madrid, laid an application for this purpose on my behalf before the Spanish Minister for Foreign Affairs, who assured Sir John that the subject would receive their best attention. This application was supported by a despatch from the Civil Governor of the Canary Islands. It is proposed to establish a commercial station at Cape Juby as early as possible, and open the port free to traders, and make an exploration from this port to Timbuctoo, on the Upper Niger; at the same time establishing commercial relations with the native chiefs, forming depôts in every important town on the proposed route. A survey will also be made of the basin called El Juf, and of the channel or channels which connected it with the Atlantic Ocean.

Donald Mackenzie.
II.

Letters received by Mr. Donald Mackenzie in reference to his Plan for opening up Soudan to Commerce and Civilization.

FOREIGN OFFICE, Aug. 12, 1875.

Sir,—In reply to the letter signed by Sir Arthur Cotton and yourself of the 12th ult., I am directed by the Earl of Derby to state to you that instructions have been sent to her Majesty's representatives in Morocco and at Teneriffe, to afford all proper assistance to the expedition which is intended to proceed under your direction to survey the bay between Capes Juby and Bojador on the north-west coast of Africa.

I am, &c.,

TENTERDEN.

FOREIGN OFFICE, Sept. 22, 1875.

Sir,—With reference to my last letter of the 17th instant, I am directed by the Earl of Derby to transmit to you a copy of a despatch from the Acting British Consul at Teneriffe, reporting that all assistance will be given to your exploring party by the authorities of that island.

I have, &c.,

T. V. LISTER.
Meeting at the Mansion House. 267

FOREIGN OFFICE, Oct. 1, 1875.

SIR,—In reply to your letter of the 22nd ultimo, I am directed by the Earl of Derby to inform you that her Majesty's Minister at Lisbon has been instructed to make an application to the Portuguese Government for such facilities as it may be in their power to afford you in examining the records of the Portuguese station in the part of Africa through which it is proposed to construct a canal which was abandoned upon the discovery of America.

Yours, &c.,

T. V. LISTER.

FOREIGN OFFICE, Oct. 23, 1875.

SIR,—With reference to the letter from this Office of the 1st inst., I am directed by the Earl of Derby to transmit you a copy of Notes made by her Majesty's Consul at Mogador, on the trade between Morocco and the Soudan, and the physical character of the country lying south of Wadnoon on the road to Timbuctoo.¹

I am, &c.,

ROBERT BOURKE.

Public Meetings held in support of the Project for opening Communication with Soudan.

A Public Meeting was held at the Mansion House, in support of the African project, on July 26th, 1875,

¹ For Report, see Appendix I., page 251.
under the presidency of the Right Hon. the Lord Mayor. Among those present were Major-General Sir Arthur Cotton, K.C.S.I., Admiral Sir Crawford Caffin, K.C.B., Mr. Alex. McArthur, M.P., Hon. A. F. Kinnaird, M.P., Andrew Cassels, Esq., Major Cooper Gardiner, Mr. Donald Mackenzie. Letters were read from H.S.H. Prince Teck, Lord Napier and Ettrick, Capt. the Hon. F. Maude, R.N., Sir J. Kennaway, Bart., M.P., Baroness Burdett Coutts, expressing regret at being unable to be present. The Lord Mayor in opening the proceedings briefly explained the objects in view, and expressed an opinion that, if carried out, it would not only tend to the abolition of the slave-trade, but also prove of the greatest importance to the commerce of this country.

Mr. Mackenzie read a paper of some length, giving details of the plan, which was warmly supported by Sir. A. Cotton and other gentlemen.

A Deputation waited on Lord Carnarvon, the Secretary of State for the Colonies, to lay before his lordship the plan for opening commercial communication with Soudan, August 5th, 1875. Among those present were Major-General Sir Arthur Cotton, K.C.S.I., R.E., the Hon. Evelyn Ashley, M.P., the Hon. Arthur Kinnaird, M.P., R. N. Fowler, Esq., and Mr. Donald Mackenzie. The Hon. Evelyn Ashley introduced the Deputation. Sir Arthur Cotton and Mr. Mackenzie addressed his lordship, explaining the object in view. Lord Carnarvon said in reply, "that he had great satisfaction
in meeting the Deputation; the scheme had his good wishes, because he believed that, if it was only carried out, it would open up a great deal of trade which was suppressed or hardly in existence at all, and be the means of reclaiming from savagery a great number of tribes leading a most miserable life.” The Deputation thanked his lordship and retired.

The Right Hon. Sir Bartle Frere, Bart., K.C.B., in writing to Mr. Mackenzie, 5th August, 1875, regretting his inability to be present at the Deputation to Lord Carnarvon, said, “I take a very sincere interest in your undertaking, and believe it ought to be vigorously supported by Government.”

A Special Meeting of the Liverpool Chamber of Commerce was held October 29th, 1875, to hear a paper read by Mr. Mackenzie, on his plan for opening a direct route to Soudan; Edmond Muspratt, Esq., President, in the chair. There was a full attendance of influential merchants, who took a deep interest in the subject. A cordial vote of thanks was proposed to Mr. Mackenzie for his excellent paper, which was carried unanimously. In the evening, Mr. Mackenzie dined with the President of the Chamber of Commerce, and a number of gentlemen, chiefly connected with trade, who had been invited to meet him.

Lieut.-General Sir Arthur Cotton read a paper on the plan for opening communication with Soudan before the British Association at Bristol, August 27th,
1875, followed by a paper on the beneficial effect the proposed inland lake would have on the climate of Northern Africa and elsewhere, by Professor Hennessy.

A Public Meeting was held in the Council Chamber at Bristol, on October 21st, 1875. The Right Worshipful the Mayor presided. A paper was read by Mr. Mackenzie on the plan for opening direct communication with Soudan. Mr. A. Warren, Mr. Britton, and Alderman Edwards spoke in favour of the question.

A Public Meeting was held at the Society of Arts, in reference to the project for opening communication with Soudan, on April 27th, 1876, presided over by the Hon. Evelyn Ashley, M.P. Among those present were Lieut.-General Sir Arthur Cotton, K.C.S.I., Mr. Alexander McArthur, M.P., Mr. Donald Mackenzie. Mr. Mackenzie read a paper on the subject, which was supported by Sir A. Cotton and other gentlemen.

A Public Meeting was held at the Grand Pump-room, Bath, on Nov. 3rd, 1875, under the presidency of the Right Worshipful the Mayor, at which Mr. Donald Mackenzie explained his project for opening communication with North-West Africa.
III.

An Address presented to Mr. Donald Mackenzie by the authorities of Lanzarote, Canary Islands.

(Translation.)

Sir,—We, the Lieutenant-Colonel, Military Governor of this island, members of the commercial community of the same, and residents of this Port of Arrecife, expressors of the sentiments of the inhabitants, approach you to congratulate you on the satisfactory result of your visit and studies on the opposite North-West Coast of Africa, according to news and information with which the British Vice-Consul has favoured us; and we trust that, on your return to these islands, you will succeed in establishing in a short time the commercial station or factory and canalization of the Sahara, which you have so wisely projected, by the survey of the aforesaid coast; resting assured that we will do all on our part with spontaneous willingness to co-operate with you, until that praiseworthy and desired object be attained; in expectation of the day when this will serve as the basis to unite closely the relations of mutual benefit and friendship between you and the inhabitants of this island.

Permit us likewise to manifest what satisfaction we
have had in the honour of becoming acquainted with you, and at the same time to render you our best thanks for having favoured this island, selecting it for head-quarters for the exploration of the coast.

In conclusion, we desire you the greatest prosperity in your undertaking; that the day may arrive, not very far, on which may be seen established by this means, liberty and civilization in that immense country, Central Africa, and that you may return with every happiness to the great metropolis of the world, undoubted centre of the advancements and progress of the age.

With the greatest consideration, your attentive and obedient servants,

(Signed) JOSÉ DE LA FUENTE,
Hidalgo,
Military Governor.
RUPERTO VIEYRA.
JUAN A. CABRERA DEL CASTILLO.
LORENZO CABRERA.
GUIS GARCIA.
RAMON PAEZ,
Captain of the Port.
ALFREDO L. CABRERA.
MANL M. COLL.
FELIPE RECIO.
ESTEBAN GARCIA.

ABRECIPE, Lanzarote, Aug. 5, 1876.
Letter from Capt. Sir John H. Glover, R.N., G.C.M.G.
Army and Navy Club, St. James's,
Jan. 30, 1875.

Dear Sir,—I have read your communication with intense interest; the subject is one that has engaged my attention for many years. You propose to work in the neighbourhood of Cape Juby. I am glad that a survey is to be undertaken to ascertain the practicability of submerging the Sahara from the Atlantic at some point which shall be beyond the jurisdiction of the Emperor of Morocco on the one hand, and northward of the French on the other. I shall be glad to aid you in a scheme second only to the Suez Canal; it is the only way to bring Christianity, commerce, and civilization to the teeming millions of its centre.

Yours faithfully,

(Signed)    John H. Glover.
Commander R.N.

To Donald Mackenzie.

Essex Hall, Walthamstow,
5, 10 mo., 1874.

Dear Sir,—I am much obliged for your interesting and informing letter on the project of a water highway from Cape Bojador on the Atlantic coast to Timbuctoo, the Niger, and to Lake Chad. The completion of a highway through such a country would be a grand achievement. If made, it appears to me almost certain to prove a commercial success in a
reasonable but short time; and if so, it would be a great blessing to Europe, as to the social and religious effects among the various tribes through whose countries it would pass. It is altogether impossible to estimate too highly the benefits and blessings which must accrue to them from it.

It is just that which our late honoured friend Dr. Livingstone would have rejoiced to contemplate and promote. He held the conviction that the suppression of the slave-trade, so far as it had been accomplished, had been the result of the existence of the settlements.

(Signed) JOSEPH COOPER.

To DONALD MACKENZIE.

Extract of a Letter from General Alexander to Mr. Mackenzie.

General Alexander, writing on this subject, Jan. 29th, 1875, says:—"As a missionary undertaking, I should think your project would recommend itself to every Christian mind, spreading a net of Christianity over Africa, under which would be developed all the blessings which social and commercial intercourse would educe from the treasures of wealth and means of prosperity now worse than wasted in that vast quarter of the globe."
IV.

The following interesting Summary of the Present Extent of the Slave-trade was contributed by Mr. Joseph Cooper.

M. E. F. Berlioux, Professor of History at Lyons, estimates the annual export of slaves, including the destruction of life, at 550,000.

Captain Colomb, of the "Dryad," makes the number in the Indian Ocean only 33,000.  

Sir Bartle Frere states "that the Superior of the Mission Convent of Central African Vicariate Apostolic estimates the annual drain from Africa consequent on slavery at 1,000,000."

Taking the lowest estimate, it is computed that 70,000 Africans are annually exported into slavery, and, accepting Dr. Livingstone's estimate of the numbers massacred by the captors, and perishing on the route to the sea coast, it is computed that not less than 500,000 are sacrificed to this traffic.

3 This does not include the exportation via Khartoum, the Red Sea, and the Sahara. 
4 Blue Book Correspondence, Sir Bartle Frere's Mission, 1872-73, p. 17. 
5 This estimate may be excessive, but it includes the killed and forsaken on the route and on passage.
It is impossible to describe the cruelties and sufferings involved in this wholesale system of inhuman crime. The atrocities are inherent in the system; surely the time has come when England and the other great nations of the world shall unite to bring about its final termination. Lieutenant Young, writing in the early part of this year (1876) from Lake Nyassa, says, “For many miles along the north-east we saw the sites of many villages and the ground strewed with thousands of skeletons.” . . . “The lower half of the lake is in possession of powerful chiefs, with their people centred around them, who combine with the Arabs, and capture slaves to the west of the lake.” . . . . “Walking over bleached skeletons with Dr. Laws, I could not help exclaiming, ‘Surely the devil has had possession of this land long enough.’”

Slavery in Christian Countries.

Brazil.—It is a common but mistaken notion that slavery has been abolished in Brazil; whereas the Christian Emperor of Brazil still rules over more than 1,000,000 slaves. In 1871 an attempt was made to put an end to slavery, and a Bill was introduced into the Legislature for that purpose. But the Bill was thrown out by the pro-slavery party, and an Act was passed which gave freedom only to the slaves belonging to the State and the religious houses. The

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* For fuller information, see “The Lost Continent,” by Joseph Cooper. Longmans and Co., Paternoster Row.
Slavery in Christian Countries. 277

bulk of the slaves are left in hopeless bondage for life. The children born of slave mothers—born after the passing of the Act—were to be free, but are to "remain in the power and under the authority of the owners, and to work for their exclusive benefit, till the age of twenty-one." It must be borne in mind that nearly every slave in Brazil has been introduced in violation of British treaty, or is the offspring of such, and is therefore entitled to freedom by British law as well as by natural right.

Spain.—In the Spanish island of Cuba, as nearly as can be ascertained, there are 369,000 slaves at the present time. In 1818 Great Britain paid Spain 400,000£ for her absolute engagement to put an end to the slave-trade, but Spain carried on the traffic as before. For twenty years after the treaty of 1818, and in violation of its solemn obligations, Spain carried on the trade at the rate of 60,000 annually, according to Sir Thomas Fowell Buxton's estimate. Lord Palmerston repeatedly asserted the right of Great Britain to claim the liberation of all the slaves introduced into Cuba in violation of treaties. ⁷

A civil war, carried on principally for the maintenance of slavery in Cuba, has now existed nearly eight years, in which more than a hundred thousand lives have already been sacrificed, and this war is still raging.

PORTUGAL.—Notwithstanding her treaties and laws forbid it, the slave-trade is still extensively carried on in the Portuguese settlements on the East Coast of Africa. Until quite recently the demand for slaves in Madagascar has been mainly supplied in numbers varying from 6000 to 10,000 per annum from the coast claimed by the Portuguese Government, though it is believed that both Madagascar and Portugal are now honestly bent on its suppression.

In MADAGASCAR, out of a population of nearly 4,000,000, the greater proportion are slaves. In 1874 the Queen issued a proclamation granting freedom to all slaves imported since June, 1865—the date of the Treaty made with England, America, and France for the suppression of the slave-trade. This proclamation being disregarded, a new one has recently issued which commands the liberation of all slaves introduced into the island from Africa. Native slavery continues as before.

SLAVERY IN MOHAMMEDAN COUNTRIES.

TURKEY, EGYPT, PERSIA, MOROCCO, ZANZIBAR, AND AFGHANISTAN.—Slavery prevails in all these countries, which together form the great slave-markets of the world. In all, or nearly all, these countries the slaves waste away, so that the demand for fresh slaves never ceases. To supply this demand is an extremely profitable trade—so much so, that it appears highly improbable that the slave-trade can be extinguished without the abolition of slavery; and there are many
reasons for believing that if the united moral influence of the civilized nations of Europe were honestly exerted, the extinction of slavery might be brought about in these countries at an early day.

Afghanistan.—It has recently been brought to light in England by the indefatigable Dr. Leitner, the Principal of the Government College at Lahore, that a large and barbarous slave-trade is carried on by the Ameer of Afghanistan, who is a quasi feudatory of Great Britain, by whom he is regularly supplied with improved Sniders and a large subsidy. Barbarous raids are carried on, on the neighbouring tribe of Siah Posh Kaffirs, who are described as a noble race, supposed by some to be descendants of a settlement of Christians of remote antiquity. This tribe of 800,000 souls is thus threatened with extermination.

The Abolition of Slavery.

It is a satisfaction to be able to state that slavery has in later times been abolished in Siam, the Khanate of Khiva, the Gold Coast of Africa, and still more recently in Tunis, through the influence of the British Resident and our present Foreign Secretary. It has been proposed that a consensus of the eight Powers which signed the Declaration on the Slave-trade at Vienna, in 1815, should take place on the first fitting opportunity; and it has been ascertained that several of the Powers are favourable to it.
V.

The British Vice-Consul Mr. Dupuis's Report on the depressions of the Sahara.

The British Vice-Consul at Tunis, Mr. Dupuis, has reported as follows to her Majesty's Government in reference to the depressions in the Sahara. He considers that the recent surveys confute the idea of there having been formerly a connexion with the Mediterranean, and of the choking up of the waters—an idea perhaps based upon the inferiority of level to that of the sea—but in his opinion the observations made seem to endorse the fact of all the region having been under water. Arab writers unite in describing the country at the date of their conquest as having been very wooded, and abundantly supplied with streams of water; the wood was cut down to facilitate the subjection of the tribes, who for above a century fought desperately for their independence, and those regions are condemned to sterility (save perhaps here and there) which were formerly rich in pasture and interspersed with towns. The desert has been gradually extended in the district between Tripoli and Egypt, covering parts once fertile, and has in like manner encroached on the Tunisian southern frontier. Between it and Tripoli, the diminished heights and lowering of the Atlas let in the sands driven by the southerly winds, to which
the more elevated and uniform heights of the mountain system oppose a barrier in more favoured Barbary states westward. . . It is presumed from that, the disappearance of the waters is due to the encroachment of the desert caused by the action of these winds, during a long succession of centuries, aided by the absorption and by evaporation occasioned by the presence of the scorching desert on the south, and also by the substances brought down by streams diminishing the depths, and spreading the waters, and thereby helping in the work of desiccation. This was accelerated also by a decrease in the water supply in consequence of the disappearance of mediæval forest cleared away by the Arabs on and after their conquest. Hence the periodical rains which once fertilized the country have been replaced by heavier but rarer falls which rush down the slopes, and disappear in the sand, or mix with the noxious waters of the lagoons before they can saturate the soil to any depth, washing away the earth and exposing naked rocks on the hill-sides or high ground, Tunis being a lake country. The recent discoveries having brought to light vast sheets of water in Africa, the Vice-Consul suggests that the idea of an inland sea having existed need not seem startling to us. The depression and also the lakes are known as "Shakki" (marshes), and the inference is that at the date of the Arab conquest there were indications of recent retirement of water. The low-lying wastes of sand, where crystallization of salt abounds, mingled with the minutest particles of shell,
are in some places marshy, in others dry, and often conceal treacherous quicksands. The largest and most westerly, termed "Metrir," occupies about 450 square miles, and the most easterly is described as within fifteen miles of Gabes. The Vice-Consul states that in this southern province of Tunis the streams which drain the mountain-slopes, twenty or thirty miles from the coast, are more or less useless from being impregnated with salt from the plains which they traverse. The Arabs say that the waters which run into the sea are more to be regretted than waters which disappear in the sands. These generally fertilize the regions through which they percolate, and then settle in lower depressions on a subsoil, and, protected by their covering of sand, last longer than if they had remained on the surface, and give rise to oases. Hence there are sandy tracts apparently worthless, but to which the native gives preference, knowing that they will retain fertility with irrigation, while a soil more loamy, and apparently richer, will be parched up in summer. In subsoil deposits, two strata of water may be found unmixed—one salt and the other sweet—the latter uppermost; and, in places where this occurs, many wells are abandoned, on becoming salt, until the next season, when the rainfall filters through the surface, and gently settles unmixed on the salt water beneath.
VI.

**Criticisms of the Press on the Proposed Plan.**

"The curiosity of the world has always been excited and always brought to bay by the great African enigma. From the days of Herodotus to those of Livingstone, European intelligence and enterprise have spent their forces in vain upon the impenetrable mystery of that vast continent with its stretches of sandy deserts and its reckless rivers. But the riddle of this geographical sphinx must be yielded up at length to the persistent questionings of civilization, the latest form of which, and not the least ingenious, was pressed upon the attention of Lord Carnarvon by an enthusiastic deputation on Thursday last. The enthusiasm which beset the Secretary of State for the Colonies originated from various springs of action. . . . The scheme for opening a route by sea into the recesses of the Sahara exercised an irresistible attraction. The project, it must be allowed, dazzles the imagination, yet it has a sufficiently substantial basis to satisfy several shrewd traders in African commerce and some distinguished engineers. It may be as worthy of serious consideration and energetic effort as the great enterprise of M. de Lesseps."—*Times*, August 7th, 1875.
"It will be strange indeed if the present century does not leave an abiding mark upon the African continent. A project is now on foot which, in its ambitious scope at any rate, far exceeds any scheme hitherto put forward for the civilization of Africa, or, in other words, the bringing into communication with the western world the inhabitants of the interior of Africa. Supposing the scheme to be capable of realization, it is hardly possible to conceive one more likely to conduce to favourable results on the African population. We all know that where trade goes the Bible follows, and there is no point which the European merchant can reach that missionary enterprise will leave behind. The matter is not one for hasty execution; it requires mature and well-considered handling. If the facts are as they are stated by the projector of the route, they deserve the attention of the statesmen and of the traders of this country. An opportunity is afforded at once to establish a thriving commerce, and redeem some of those obligations towards the heathen tribes of Africa which Providence would almost seem to have imposed upon us."—The Hour, March 31st, 1875.

"Most people will agree that we live in days of vast cosmic experiments. The idea of arriving at Timbuctoo in a mail steamer is certainly rather a novel one. Admirers of Homer will remember that the blameless Telemachus in the 'Odyssey' was in the habit of asking visitors to his island whether they had come
in a ship, as he thought it unlikely that they had come by land. Residents in Timbuctoo have been in the way of thinking it at least as improbable that any voyager should reach them by sea. The Timbuctoo men must prepare themselves to be astonished. The idea of making the desert blossom like a rose in this fashion is indeed sufficient to astonish an age which has made Africa an island. The scheme is the most remarkable that has ever been devised.”—Daily News, August 7th, 1875.

“There is a reasonable prospect of at last opening up Africa effectually. Mr. Mackenzie’s scheme for opening a road for the Atlantic into the Desert of Sahara seems feasible enough.”—Vanity Fair.

“Instead of a pathless wilderness across which once in the year a line of camels carry merchandise, the envious but admiring ears of M. de Lesseps are destined to hear of fleets of merchantmen sailing over the conquered Sahara. Liverpool will only be fourteen days from the Upper Niger, and while a magnificent new market will be opened for British and other goods, the regeneration of Africa will be advanced as if centuries had suddenly rolled over.”—Daily Telegraph, April 2nd, 1875.
Appendix VI.

"The scheme of Mr. Mackenzie for tapping the great Niger valley, and thus opening a new road into Central Africa at a point only 1500 miles from England, is so magnificent and yet so promising that our first feeling must be one of wonder that no one has ever thought of so easy a path into the heart of the African mystery."—Standard, July 29th, 1875.

"To cut through the bar which keeps out the Atlantic will be to throw open to commerce, to civilization, and to improvement of every kind, material and moral, a great and rich region of the earth, the proposed access to which presents itself directly to British enterprise, and cannot fail to remunerate British capital."—Liverpool Daily Post, Nov. 1st, 1875.

"They could hardly make a better beginning than by supporting Mr. Mackenzie's mission brought before a public meeting at the Mansion House."—Spectator, July 31st, 1875.

"The distance from the coast to Timbuctoo across the desert is eight hundred miles; and in the event of the sand-barrier, five or six miles in extent, being removed, there would be uninterrupted access to the
Appendix VI.

heart of Africa, and the commerce of Europe and America would be largely developed, besides effecting what, said the Lord Mayor, was more important, the abolition of the slave-trade and opening a way to the introduction of Christianity among the African tribes.”—The Saturday Review, August 14th, 1875.

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