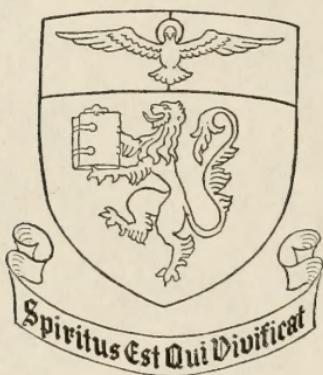
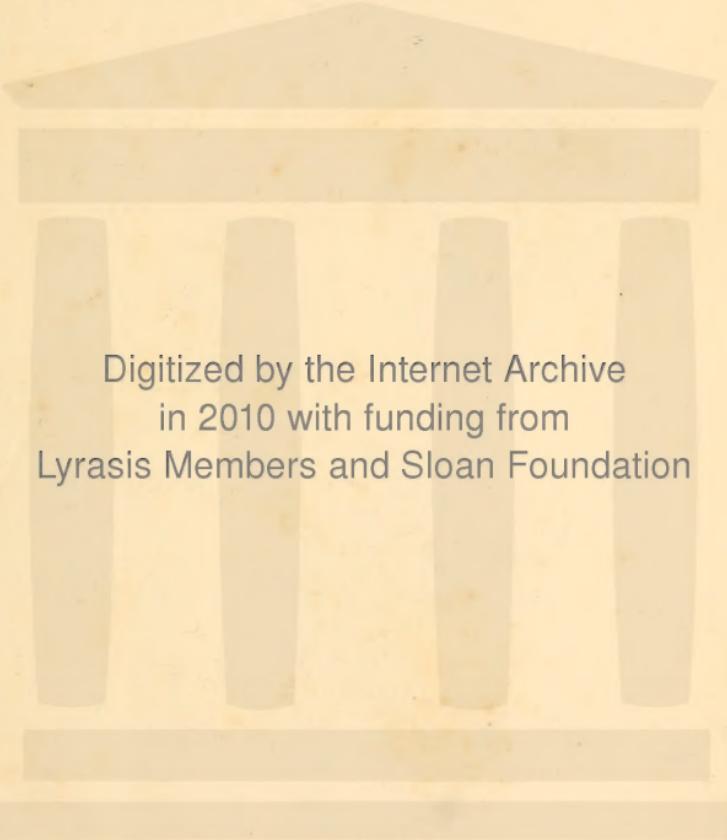




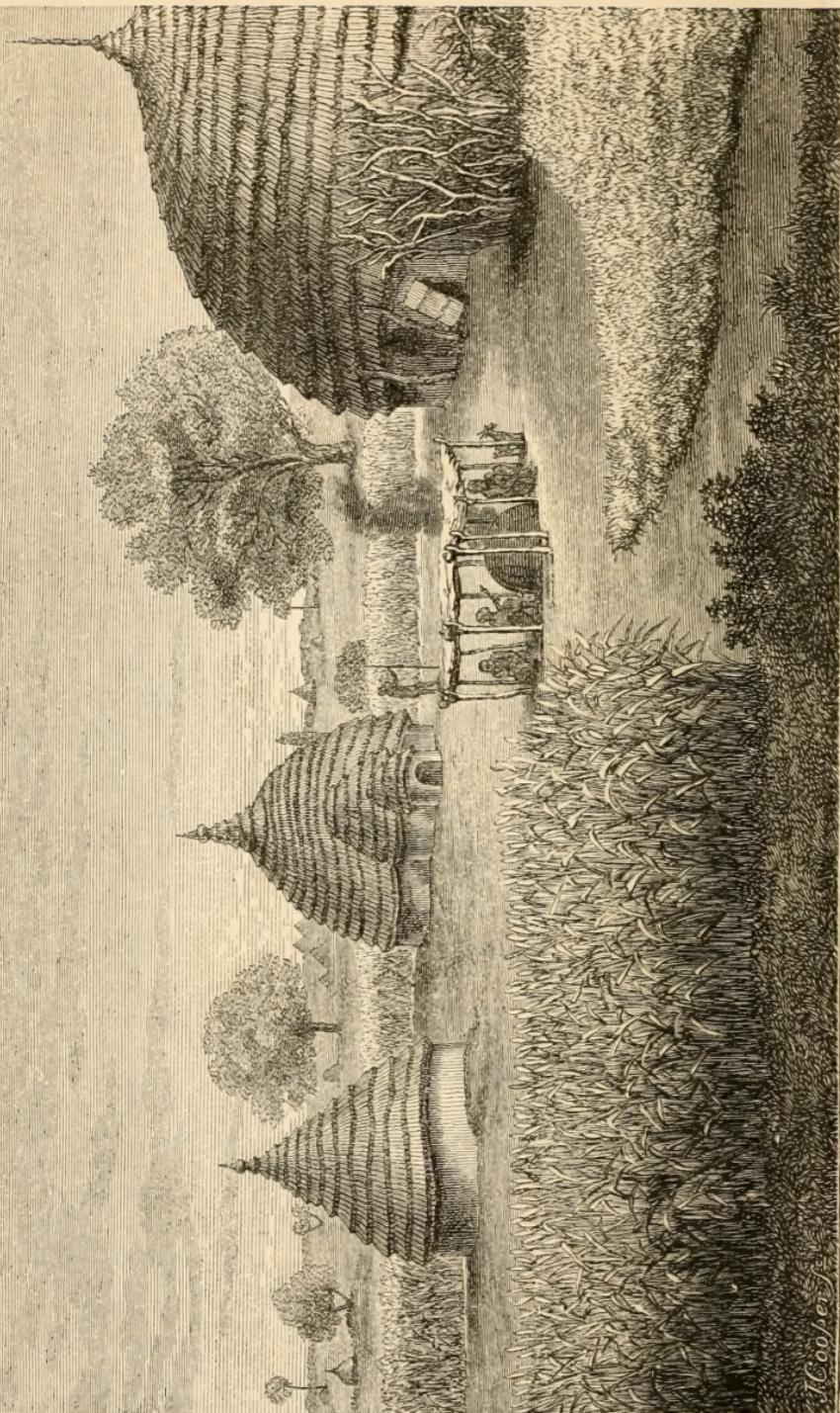
Duquesne University:



was
not well
Ronald Greig



Digitized by the Internet Archive
in 2010 with funding from
Lyrasis Members and Sloan Foundation



J.C. COOKE

THE

HEART OF AFRICA.

THREE YEARS' TRAVELS AND ADVENTURES

IN THE UNEXPLORED REGIONS OF CENTRAL AFRICA.

FROM 1868 TO 1871.

By DR. GEORG SCHWEINFURTH.

TRANSLATED BY ELLEN E. FREWER.

WITH AN INTRODUCTION BY WINWOOD READE.

IN TWO VOLUMES.

VOL. I.

WITH MAPS AND WOODCUT ILLUSTRATIONS.

Third and Cheaper Edition.

LONDON:

SAMPSON LOW, MARSTON, SEARLE, & RIVINGTON,
CROWN BUILDINGS, 188, FLEET STREET.

1878.

[*All Rights reserved.*]

R916.24
S413
V.1.

DT361
S41
1878x
V.1

Afr.

Instl.

LONDON :

PRINTED BY WILLIAM CLOWES AND SONS,
STAMFORD STREET AND CHARING CROSS.

204

INTRODUCTION.

ABOVE Assouan, the terminus of tourists is the Nubian Desert, a yellow arm of the Sahara, thrust between Central Africa and Egypt. When this desert is crossed you come to the ancient Ethiopia, which consists of lowlands watered by the Nile, while a little to the left is Abyssinia, the Switzerland of Africa. The White Nile, which comes from the Equator, is hereabouts joined by the Blue Nile, or Black Nile, from the Abyssinian Wells; and near their confluence is the town, Khartoom. In the glorious days of the Pharaohs Ethiopia was colonised by Egypt, and there was a famous city, Meroe by name, possessing pyramids and temples. In the days of Egyptian decline Ethiopia became independent, conquered the mother country for a time, and was never entered by the armies of the Persians. The Ptolemies who afterwards reigned at Alexandria did conquer Ethiopia, even to its Highlands, carrying their arms, as they boasted, where the Pharaohs themselves had never been; but the Romans did not occupy the country; they followed the advice of Augustus,* and the Nubian Desert was made their frontier.

In the same manner the Arabs under the caliphs did not attempt the conquest of Ethiopia, and it was perhaps owing to Buonaparte that Turkish Egypt advanced so far to the south.

The French expedition has always been stigmatized as a fruitless crime. But by the French the power of the Mamelukes was broken; by the French was displayed on Egyptian soil the superior genius of Europe, and thence may be derived a movement similar to that which in the days of the Pharaohs was produced by the Phil-Hellenes, or kings who were "lovers of the Greeks." Mehemet Ali organised an army in the European manner, and, crossing the Nubian Desert, conquered the lowlands of Ethiopia or Soudan. At the same time he commenced the civilisation of Cairo. These two great projects,

* Gibbon, Vol. I. c. i.

culture in the capital, and conquest in Soudan, have been carried out of late years with marvellous intelligence and energy by the reigning Khedive. To understand what has been accomplished, let us compare the Egypt and Ethiopia of the present with the past.

In the past, a European traveller who visited Egypt incurred contumely and considerable risk. He was not allowed to ride on a horse ; he was called “dog” by the pious who passed him in the streets, and pelted by the playful gamin ; the dogs barked at him ; the women turned their eyes away as if they had seen an unclean thing. But now Cairo, like Rome and Florence, lives upon tourists, who, if they are not beloved, are welcome ; the city is lighted by gas : it has public gardens in which a native military band performs every afternoon ; an excellent theatre, for which Verdi composed *Aïda* ; new houses in the Parisian style are springing up by streets, and are let out at high rents as soon as they are finished. No gentleman wears a turban ; and few any longer affect to despise the blessings of a good education.

Let us now pass on to the south. In the olden time the Nubian Desert was infested by roving bandit-tribes. Since the days of Mehemet Ali they have earned an honest livelihood by letting out their camels : and soon they will become navvies, railway porters, &c. Already there is telegraphic communication between Cairo and Khartoom, and a railway is about to be commenced. As for the Soudan, it was formerly divided among a number of barbarous chiefs almost incessantly at war. It is now conquered and at peace, and trade is seldom disturbed. Civilised opinion, all-powerful at Cairo, penetrates into the remotest recesses of this new African empire ; the traffic in slaves is abolished, and those who perpetrated their crimes in the dark depths of the continent have lately been reached by the arm of the law.

It is my purpose in making these remarks to show what facilities for geographical research are afforded by the power and good-will of Egypt. In former times the explorer began at the Nubian Desert or the Red Sea ; he might be plundered of all that he possessed before he entered negro Africa at all. Supposing that he arrived safely in Sennaar, he was at once exposed to those vexatious extortions and delays which so frequently robbed him of his money and his health before he had opened new ground. As it is, a firman from the Viceroy obtains him men and boats from the governor of Khartoom,

and therefore his point of departure is shifted many degrees to the south. He is now able to penetrate into the heart of Africa before he encounters an independent chief. The area of the firman is immense, but beyond that area the dangers and difficulties of travel are perhaps increased by the aggressive policy of Egypt. The princes of Darfoor and Waday have a constant dread of annexation, and a European traveller, if he entered those countries, would find it difficult to obtain his congé. The west forest region which lies south of Darfoor and Waday, and also along the main-stream of the Nile, has always been a slave-hunting ground ; annual raids are made from Darfoor and Waday, the hunters taking out licences from their kings,* and the Egyptian company of bandits, whom Sir Samuel Baker recently dispersed, hunted the land south of Gondokoro. These wars unsettled the country and rendered it difficult for travel. The slave-hunters intrigued against the European, fearing that he would expose them to the government at Cairo ; and the slave-hunted had learnt to regard all men as their foes and oppressors. Thus it has happened that out of a host of men who have attempted to penetrate Africa from north to south only two have achieved success. The first and foremost of these is Sir Samuel Baker ; the second is Dr. G. A. Schweinfurth, the author of this work.

He was born at Riga in December 1836, and was the son of a merchant. He studied at Heidelberg and Berlin, where he took his degree as Doctor of Philosophy, and devoted himself from his boyhood to the science of botany. At his first school one of the masters was a son of a missionary in South Africa ; he used often to describe the wonders of that country, and perhaps it was in this manner that his mind was turned towards that country which afterwards created his career. But the proximate cause was a collection of plants placed in his hands to arrange and describe. In 1860, the young Freiherr von Barnim, accompanied by Dr. Hartmann, had made a journey in the region of the Nile, where he had fallen a victim to the climate. His collections were brought home, and as Schweinfurth day after day studied these dry corpses, a yearning came upon him to go to the land where he might behold them in all their bloom and their beauty, and where he might discover new species—those golden joys for the explorer. In 1863, he left Berlin for Egypt, and having botanized in the Delta of the Nile, travelled along the shores

* Mohammed el Tounsy, Wadai.

of the Red Sea, skirted the Highlands of Abyssinia, passed on to Khartoom, and finally, his purse being empty, returned to Europe, after an absence of two years and a half, with a splendid collection of plants. But soon he languished for Africa again, and submitted to the Royal Academy of Science a plan for the botanical exploration of the equatorial districts lying west of the Nile. His proposals were at once accepted ; he received a grant of money from the Humboldt Institution, and, in 1868, he landed in Egypt. During three years he was absent in the *heart of Africa*, and, even before he had returned, his name had already become famous in Europe and America. Travelling, not in the footsteps of Baker, but in a westerly direction, he reached the neighbourhood of Baker's lake, passing through the country of the Niam-niam, and visiting the unknown kingdom of Monbutto. As an explorer, he stands in the highest rank, and merits to be classed with Mungo Park, Denham and Clapperton, Livingstone, Burton, Speke and Grant, Barth and Rohlfs. He can also claim two qualifications which no African traveller has hitherto possessed. He is a scientific botanist, and also an accomplished draughtsman. Park had some knowledge of botany, and Grant made an excellent collection, but both must be regarded as merely amateurs. In other works of African travel the explorer has given rude sketches to some professional artist, and thus the picture has been made ; but Schweinfurth's sketches were finished works of art. In a geographical sense, this work is of importance as a contribution to the problem of the Nile; and ethnologically it sets at rest a point which has long been under dispute, viz., the existence of a dwarf race in Central Africa. These Pygmies are mentioned by the classical writers ; much has been said about them by modern travellers on the Nile ; Krapf saw one on the Eastern Coast ; the old voyagers allude to their existence in the kingdom of the Congo, and Du Chaillu met them in Ashango Land. Yet still much mystery remained which, thanks to Schweinfurth, is now at an end. That such a race exists is now placed beyond a doubt ; and it is probable that these dwarfs are no other than the Bushmen of South Africa, who are not confined, as was formerly supposed, to that corner of the continent, but also inhabit various remote recesses of Africa, and were probably the original natives of the country.

WINWOOD READE.



CONTENTS.



CHAPTER I.

	[PAGE]
My former journey—Inducements to a second—Plan and object—	
Kind reception in Khartoom—The Governor-General—Contract with Ghattas — Herr Duisberg — Ivory-trade at Khartoom—Khartoom possessions in the negro-countries — Departure from Khartoom — Character of the landscape—First day of ill-luck—Impressions on the first sight of savages—Boat attacked by bees —Fashoda—Camp of the Mudir—A negro-king—Gum-arabic —The melodious tree—Mohammed Aboo Sammat—Boats on the flight—Treachery of the Shillooks—General market—First papyrus — Useless attempts to proceed—A world of grass—Hippopotamuses in a fright — The last obstacle — Depreciation of the Gazelle stream—Father of the Slipper—Description of the Nueir—Analogy between man and beast — The Bahr-el-Arab a main-stream—Vallisneria-meadows—Arrival in Port Rek —Discovery of the Meshera—Deadly climate—Features of the scenery—Old Shol—Royal gifts	1

CHAPTER II.

Start for the interior—Flags of the Khartoomers—Comfortable travelling with bearers—The African elephant—Disgusting wells —Wide sand-flats—Village of Take—Halt in the village of Kudy —Description of the Dinka—Dyeing of the hair—Nudity—“ The Turkish lady ”—Iron age—“ People of the stick ”—Weapons of defence—Choice cookery—Snakes—Tobacco-smoking — Construction of huts—Dinka sheep, goats, and dogs—Reverence for cattle—Degeneration of cows—Large murahs—Instance of parental affection—Forest district of the Al-Waj—Arrival at Ghattas’s Seriba—Salubrity — Management — The daughter Seriba Geer—Bit of primeval forest—Trip to the Dyoor and Wow—Good entertainment —Old servant of Petherick’s—Antinori and Vayssière—Hornblend	
--	--

CONTENTS.

	PAGE
—Height of water of Dyoor—Apostrophe to the river—A model Seriba—The Wow—Seriba Agahd—Wild buffaloes—Instability of dwellings—Caama and Leucotis antelopes—Pharaoh-palms	42

CHAPTER III.

Daily life of the Dyoor—Their race—Iron-smelting — Formation of huts—Idyll of village life—Hunting with snares—Women's work —Graves—Affection—In Ghattas's Seriba—Laying out of garden —Physiognomy of vegetation—Geography of plants—Seriba law —Cattle-raids on the Dinka—Tour round Ghattas's Seribas—Geography at Geer—Fish of the Tondy—Fear of ghosts in Koolongo —Caves of Kubbehee—Bamboos in blossom—Triumph of Nature over her traducers—Joint-stock distillery in Gurfala—Nubian love of drink — Petherick's Mundo — Unsuccessful chase—Two bush-antelopes — Cultivated plants of the district — Cereals— Large growth of sorghum — Leguminous fruits — Oily fruits— Tubers—Vegetables—Tobacco—Smoking in Africa	76
---	----

CHAPTER IV.

THE BONGO: Area, boundaries, and population of Bongoland—Subjection to the Khartoomers—Decrease of population by slave-trade—Red tinge of skin—Width of skull—Small growth of hair —No aridity in climate—Wild tubers as food—Goats and dogs— Hunting-weapons—Villages and huts—Smelting-furnaces—Money —Weapons for display—Wood-carving—Penates—Musical instruments—Character of music—Corpulence of the women—Hottentot Venus — Mutilation of teeth — Disfigurement of lips — Arrow-poisoning — National games — Marriage premiums — National morality — Disposal of dead — Memorial erections — Loma, good and evil luck—Fear of ghosts—Belief in witches—Mistrust of spirits — Modes of healing — Language — Unity of people of Central Africa—Extermination of the Bongo	111
--	-----

CHAPTER V.

Enjoyment of the rainy season—Calamities by fire—Deliverance and escape—Six slaves burnt—Barterings—Domestication of wild cats —Vermin—Fever—Meteorology—Resolve to follow Aboo Sammat —Passage of the Tondy—The waterbock—Scenery by night— Shereefee's attack—Seriba Duggoo—Consequences of steppe-burn-	
--	--

	PAGE
ing—Land-snails—White-ant hills—Arrival in Sabby—Nocturnal festivities—Desolation of the country—Lions—Tour through the Mittoo country—Waking in the wilderness—Soldier carried away by a lion—Dokkuttoo—Fishing in the Roah—Ngahma—Dimindoh, the hunter's Seriba—Dangadduloo—The Rohl—Footsore—Poncet's Seriba—Mvolo—Fantastic character of landscape—Rock-rabbits—Seriba Karo—Reggo—Kurragera—Aboo Sammat's festivities—An oration—Deraggo and the mountains—Kuddoo on the Roah—Return to Sabby—The Mittoo tribes—Disfiguration of lips—Fetters of fashion—Love of music	150

CHAPTER VI.

Preparations for the Niam-niam campaign—Generosity of Aboo Sammat—Banner of Islam—Travelling costume—Terminalia forest—Prospect from Mbala Ngeea—Camp on the Lehssy—The Ibba—First meeting with Niam-niam—Growth of popukky-grass—Elephant-hunting among the Niam-niam—Visit to Nganye—His household—Gumba—A minstrel—Beauty of the Zawa-trees— <i>Encephalartus</i> —Cultivated districts—Identity of the Sway and the Dyoor—Passage of the Manzilly—First primeval forest—Geography of plants—Feeding the bearers—Aboo Sammat's territory—Wild pepper—Giant trees—Modesty of Niam-niam women—Bongo poisoned by manioc—Nduppo's disagreement with Wando—Purchase of skins—Wando's threats—Preparation for war—Natives as soldiers—Rikkete—Forest scenery on the Lindukoo—Niam-niam guides—The watershed of the Nile—Geological formation of Central Africa—Crossing the marshes—“Gallery-woods”—Wando's visit—Native cookery—The “leaf-eater.”	199
---	-----

CHAPTER VII.

Intelligence of Nduppo's death—Hunting-trophies—Signs of cannibalism—The Chimpanzee—Presents of chimpanzee-skulls—The A-Banga—New style of huts—Fertility of land—The pushyoh—Cam-wood—Sham-fight—Magic lucifers—Interchange of blood—Gyabir wounded—Modes of expressing pain—Female slaves captured—White ants—Monbuttoo frontier—Reception by Nembeh—Bongwa and his wife—Cattle of the Maogoo—Cultivation of sugar-cane—Arrival at the Welle—Condition of the stream—Origin and relations—Crossing the river—Monbuttoo canoes—New impressions—Arrival at Munza's residence	246
--	-----

CHAPTER VIII.

	PAGE
THE NIAM-NIAM OR ZANDEY : Signification of name—General characteristics — Distinct nationality — Complexion—Tattooing—Hair-dressing — Ornaments — Weapons — Agriculture — Good beer— Cultivated plants—Dogs—Cannibalism—Analogy with the Fans— Architecture—Authority of princes—Their households—Modes of warfare—Signals — Bait for wild-fowl — Handicraft — Forms of greeting—Position of the women—An African pastime—Musical taste—Professional musicians—Language—Auguries and ordeals — Mourning for the dead — Disposal of the dead—Genealogical table of Niam-niam princes	273

LIST OF ILLUSTRATIONS.

(ENGRAVED BY J. D. COOPER.)

	PAGE
DINKA FARM	<i>Frontispiece</i>
VEGETATION OF SOUTHERN NUBIA	<i>to face</i> 4
VIEW OF FASHODA	13
PRICKLES OF ACACIA	21
IN FULL FLIGHT BEFORE THE SHILLOOK CANOES	<i>to face</i> 22
THE VESSELS IN THE GRASS-BARRIER.	<i>to face</i> 25
BALÆNICEPS REX	31
VIEW ON THE MESHERA (PORT REK)	<i>to face</i> 35
THE MESHERA	37
OLD SHOL	40
PROFILES OF THE DINKA	49
A DINKA DANDY	51
DINKA INSTRUMENTS FOR PARRYING CLUB BLOWS	53
SECTIONAL VIEW, SHOWING CONSTRUCTION OF DINKA HUT	56
DINKA BULL.	57
DINKA SHEEP	58
DINKA GOAT.	59
DINKA CATTLE-PARK	<i>to face</i> 61
"KYATT" WORM	<i>ib.</i>
THE CHIEF SETTLEMENT OF KURSHOOK ALI. A MAJESTIC KHAYA-TREE	<i>to face</i> 70
CENTRAL AFRICAN HARTEBEEST	73
LEUCOTIS ANTELOPE (MALE)	74
LEUCOTIS ANTELOPE (FEMALE)	<i>ib.</i>
BRASS ORNAMENTS OF THE DYOR.	78
PORTRAIT OF A DYOR.	79
SPEAR HEAD	80
DYOR SPADE	<i>ib.</i>
DYOR SMELTING-FURNACE	81
DYOR VILLAGE IN WINTER	<i>to face</i> 83
KOSARIA PALMATA	88
THE KILNOKY	94

LIST OF ILLUSTRATIONS.

	PAGE
CENTRAL AFRICAN BASTARD GEMSBOCK (<i>Antilope leucophaea</i>)	100
THE MADOQUA	101
THE DELOO	102
CENTRAL AFRICAN YAM	106
THE NYITTI	107
CALYX OF THE HIBISCUS SABDARIFA.	108
BONGO GOAT	119
SHORT-BODIED BONGO GOAT	ib.
BONGO VILLAGE, NEAR GEER	<i>to face</i> 122
VERTICAL SECTION OF SMELTING-OVEN	124
IRON MONEY—LOGGOH KULLUTTY, LOGGOH MELOT	125
BONGO LANCES	126
PINCERS USED BY THE BONGO WOMEN FOR PLUCKING OUT THEIR EYELASHES	ib.
KNIFE OF THE BONGO WOMEN	ib.
THE DANGABOR AND A SINGLE RING	127
BONGO STOOL	128
YANGA'S GRAVE	129
BONGO	135
BONGO WOMAN	137
THE DEPRESSION OF THE TONDY	<i>to face</i> 158
THE CENTRAL AFRICAN WATERBOCK. (<i>Antilope ellipsiprymnus</i>)	160
MUSHROOM-SHAPED WHITE-ANT HILLS	166
PONCET'S SERIBA IN MVOLO	<i>to face</i> 180
VIEW IN THE DISTRICT OF MVOLO	<i>to face</i> ib.
GOGGO, A MITTOO-MADI CHIEF	183
GOAT OF THE BONGO, MITTOO, MOMVOO, AND BABUCKUR	190
LORY, A MITTOO WOMAN	191
CONE OF QUARTZ WORN IN THE LIP (ACTUAL SIZE)	193
APRON WORN BY THE MADI	ib.
NGAHMA, A MITTOO CHIEF	194
LOOBAH WOMAN.	195
WENGU, A MITTOO WOMAN	196
MITTOO LYRE AND MITTOO AIR	197
NIAM-NIAM IN FULL DRESS	208
COIFFURE OF THE NIAM-NIAM	209
A NIAM-NIAM MINSTREL	<i>to face</i> 212
A NIAM-NIAM GIRL	223
NIAM-NIAM HAMLET ON THE DIAMVONOO	<i>to face</i> 247
AN A-BANGA	250
<i>Platycerium elephantotis</i> , SCHWEINF.—ONE-EIGHTH OF NATURAL SIZE	258
BONGWA'S WIFE.	262
ENTRY TO IZINGERRIA'S MBANGA	<i>to face</i> 264

LIST OF ILLUSTRATIONS.

xiii

PAGE

REMARKABLE HEAD-DRESS OF THE NIAM-NIAM	277
KNIVES, SCIMITARS, TRUMBASHES, AND SHIELD OF THE NIAM-NIAM	279
NIAM-NIAM WARRIOR	280
NIAM-NIAM WARRIORS	<i>to face</i> <i>ib.</i>
CLAY PIPES OF THE NIAM-NIAM	282
NIAM-NIAM DOG.	283
NIAM-NIAM GRANARY	287
BAMOGEE, OR HUT FOR THE BOYS	288
NIAM-NIAM HANDICRAFT	293

LARGE MAP OF DR. SCHWEINFURTH'S DISCOVERIES IN CENTRAL AFRICA	<i>to follow</i> vi
--	---------------------

THE HEART OF AFRICA.

CHAPTER I.

My former journey—Inducements to a second—Plan and object—Kind reception in Khartoom—The Governor-General—Contract with Ghattas—Herr Duisberg—Ivory-trade at Khartoom—Khartoom possessions in the negro-countries—Departure from Khartoom—Character of the landscape—First day of ill-luck—Impressions on the first sight of savages—Boat attacked by bees—Fashoda—Camp of the Mudir—A negro-king—Gum-arabic—The melodious tree—Mohammed Aboo Sammat—Boats on the flight—Treachery of the Shillooks—General market—First papyrus—Useless attempts to proceed—A world of grass—Hippopotamuses in a fright—The last obstacle—Depreciation of the Gazelle Stream—Father of the Slipper—Description of the Nueir—Analogy between man and beast—The Bahr-el-Arab a main-stream—Vallisneria-meadows—Arrival in Port Rek—Discovery of the Meshera—Deadly climate—Features of the scenery—Old Shol—Royal gifts.

WHEN, in the summer of 1868, I prepared for the great journey, of which the following pages contain the description, I was already no novice on African soil. In 1863 I had served an apprenticeship in the art of travelling in the sunny fields of Egypt and Nubia. For months together, in my own boat, I had navigated the Red Sea; and it was while I was exploring the untraversed mountains by its coasts that I seriously conceived my larger project. My curiosity was particularly attracted towards the district of the independent Bishareen. I had then repeatedly crossed the country between the Nile and the sea, and while sojourning on the lower terraces of the Abyssinian highlands, I had learnt to appreciate the full enchantment of the wonders of nature in Africa.

In 1866, passing through Khartoom and Berber, I found my way back again to Egypt.

Once entertained, the project of the botanical investigation of

these lands resolved itself more and more into the problem of my life. The splendid herbarium, too, which I had carried home as the reward of my labours, obtained though it was at the cost of repeated attacks of fever, contributed to intensify my desire. Altogether the result of my first attempt was an encouragement and happy omen for my success in a second.

The time which elapsed between the completion of my first, and the commencement of my second journey, was occupied in studies which were directed to the scientific classification and analysis of what had been so abundantly secured.

Whoever knows the blameless avarice of a plant-hunter will understand how these studies could only arouse in me a craving after fresh booty. I could not forget that the greater part of the Nile territory, with the mysterious flora of its most southern affluents, still remained a fresh field for botanical investigations; and no wonder that it presented itself as an object irresistibly attractive to my desires. But one who has himself, on the virgin soil of knowledge in unopened lands, been captivated by the charm of gathering fresh varieties, and has surrendered himself to the unreserved enjoyment of Nature's freedom, will be prompted to yet keener eagerness; such an one cannot be daunted by any privation he has undergone, nor deterred by any alarm for his health: he recalls as a vision of Paradise the land he has learnt to love; he exaggerates the insalubrity of a northern climate; he bewails the wretched formality of our civilised life, and so, back to the distant solitudes flies his recollection, like a dove to the wilderness.

Of this kind were my impressions as these two years passed away. I was prohibited from any immediate prosecution of my hope by the inadequacy of my pecuniary means. A welcome opportunity, however, soon presented itself, and enabled me to resume my investigation of the district of the Nile.

After the death of Alexander von Humboldt, there had been founded in Berlin, as a monument of gratitude and recognition of his services, the "Humboldt Institution of Natural Philosophy and Travels." The object of this was, without regard to nationality or creed, to assist talent in every direction in which Humboldt had displayed his scientific energies; and it was especially directed that the funds should be applied to promote travels in the most remote districts. The Institute contemplated a supply of means for the prosecution of those philosophical studies to which Humboldt dedicated himself with such unceasing ardour. The Royal Academy of

Science of Berlin was vested alike with the power of deciding on the undertakings and of selecting suitable agents to carry out their designs.

To that eminent scientific corporation I ventured to submit a scheme for the botanical investigation of those equatorial districts which are traversed by the western affluents of the Upper Nile. My proposal met with a ready sanction, and I was rejoiced to receive a grant of the disposable funds of the Institution, which had been accumulating for the space of five years.

Thus it happened that in July 1868 I was once more upon the soil of Africa.

During my first stay at Khartoom, which is the centre of government of the Egyptian Soudan, I had collected a variety of information about the ivory-expeditions undertaken by the merchants of the place to the country about the sources of the Nile; I had likewise made certain alliances with the natives, and by these means I hoped to project a plan for a scientific progress over the district on a firm basis. There was no doubt that in the heathen negro-districts of the Upper Nile, the Egyptian Government exercised little influence and no authority. Under its direction, the Khartoom merchants had indeed done something—for sixteen years they had traversed the land in well-nigh every direction, and they had established stations for themselves in the negro borders; but they had not made good any hold upon the territory in general. Nevertheless, I had no alternative except to conclude that without the countenance of the Government, and without the co-operation and support of the merchants, there was no reasonable expectation that the objects of a scientific traveller could be forwarded.

Upon the whole, therefore, I soon came to the determination of being taken in the train of the merchants of Khartoom, trusting that the countries opened by them would offer sufficient scope for all my energies. It was probable that the ivory-traders would never, of their own accord, want to thwart me; yet I would not rely entirely on this, as I knew that they were themselves subjects of the Viceroy. As matter of fact, probably, they were entire masters of the situation in the negro countries, and really irresponsible; but still their interests made them apparently subservient to an absolute government, and this was the handle that I desired to use accordingly. By diplomatic interest, I had secured the ostensible recognition of the Viceregal Government, but from my own experience, I was fully convinced that mere letters of

recommendation to the local authorities, as long as their contents are limited to ordinary formal phrases, are of very questionable advantage. I might refer particularly to Sir Samuel Baker's misadventure as affording an illustration of the insufficiency of such credentials. I considered myself fortunate, therefore, in obtaining from Sherif Pasha, the Prime Minister of the Viceroy (although he was himself not in residence), special orders, which I knew were indispensable, to the Governor-General of Khartoom. The Governor-General was to superintend any contract which I might make with the merchants to secure that my journey through the district of the Gazelle River should be unhindered, and to insure the due fulfilment of whatever obligations might be undertaken.

Thus the course appeared to be smooth, by which I might hope to reach the centre of the mysterious continent; but I was still far from my object, still far from the point which I could consider as the true starting-point of my real journey.

From Suez I proceeded by steamboat to Djidda, where I hired an Arab boat to convey me across to Suakin. Across the tract of land between the Red Sea and the Nile, I travelled with a small camel-caravan. This transit alone occupied forty days; but I did not regret the delay, as not only did it allow me time to investigate the interesting vegetation of the mountain ranges of Southern Nubia, but it prepared me in a measure for exertions for which a couple of years passed in sedentary pursuits had somewhat unfitted me. On reaching Berber, I lost no time in finding a boat on which to continue my journey.

On the 1st of November, at midday, I at last reached Khartoom, and landed on the bank, which was all alive with hundreds of boats. The German Vice-consul, Herr Duisberg, who had shown me so much kindness at the time of my former visit, again received me most hospitably. In his elegant and commodious house, I had every opportunity for rest and refreshment in anticipation of my coming labours.

In Egypt, in well-informed circles, it was a current opinion that the Government was trying, on principle, to throw impediments in the way of any explorers who might purpose penetrating the district of the Upper Nile. It was supposed that they were desirous of preventing the circulation, by eye-witnesses, of adverse reports, and of keeping back from the eyes of the world any undesirable details as to the position of matters with reference to the slave-trade. Under this impression I entered upon my journey with some mis-



giving, entertaining no very sanguine hopes as to the real utility of the order delivered to me for the Governor-General of Khartoom, who at that time was administering affairs with considerable vigour in all the provinces of the Soudan under the Egyptian dominion above the first cataract.

So much the more pleasant, therefore, was my surprise when, immediately after my arrival in Khartoom, I was honoured by a visit from the powerful Dyafer Pasha, and, after the first few words, satisfied myself that there was a reasonable expectation that, on this occasion, the local government would do all within their power to secure the most complete protection to a scientific expedition.

My letter of recommendation from the Academy was afterwards read in the Government divan. It was fluently translated, sentence by sentence, into Arabic by the physician in ordinary, and the Pasha at once declared that he would be the Vokeel, that is to say, the manager of affairs, for the Academy of Berlin, and promised that he would not fail to afford me the necessary assistance for my journey. How faithfully he kept his word is well known, and on that account the thanks of the Academy of Science were formally presented to him.* He referred me to the writers, who were to settle the various covenants of my agreement with an ivory-trader, Ghattas, a Coptic Christian. The Governor-General himself had arranged the terms, and I could find little in their tenor that would be adverse to my interests.

I should fail to discharge a duty of gratitude if I were to omit to acknowledge the interest displayed in behalf of my enterprise by Herr Duisberg, who was at that time Vice-consul of the North German Confederation in Khartoom. Not only did he entertain me most hospitably for several weeks in his house, but likewise exerted all his influence on his friends the ivory-traders, so as to dispose them favourably to my undertaking, and to relieve them from any fear of interference on my part with their affairs.

His conciliating manners availed to satisfy the Khartoom merchants that my plan was not adverse to their interests. Hitherto they had looked upon every scientific traveller as a dangerous spy, whose visit only aimed at denouncing their transactions on the Upper Nile, and reporting them to the Consuls in

* Dyafer Pasha received an illuminated address from the Academy, and was at the same time made a member of the Society of Naturalists at Berlin.

Egypt. On this occasion they consented to meet me at a sumptuous entertainment given by Herr Duisberg before my departure. All the gentry of the town, Pashas and Beys, glittering with their stars and orders, and merchants, in their gorgeous satin robes, gathered together at that feast of reconciliation between the representatives of African commerce and of European science.

The entire ivory-trade of Khartoom is in the hands of six larger merchants, with whom are associated a dozen more whose business is on a smaller scale. For years the annual export of ivory has not exceeded the value of 500,000 Maria Theresa dollars. There has been a continual decrease in the yield of ivory from the territory adjacent to the river, so that last year, even that sum would not have been maintained, unless the expeditions had, season after season, been penetrating deeper into the more remote districts of the interior. It is a fallacy to suppose that the pursuit of elephants is merely a secondary consideration in these enterprises of the Khartoom merchants, or that it only serves as a cloke to disguise the far more lucrative slave-trade. These two occupations have far less to do with one another than is frequently supposed. If it had not been for the high value of ivory, the countries about the sources of the Nile would even now be as little unfolded to us as the equatorial centre of the great continent: they are regions which of themselves could produce absolutely nothing to remunerate transport. The settlements owe their original existence to the ivory-trade; but it must, on the other hand, be admitted that these settlements in various ways have facilitated the operations of the regular slave-traders. Without these depots the professional slave-traders could never have penetrated so far, whilst now they are enabled to pour themselves into the negro countries annually by thousands, on the roads over Kordofan and Darfoor.

The merchants of Khartoom, to whom I have alluded, maintain a great number of settlements in districts as near as possible to the present ivory countries, and among peaceful races devoted to agriculture. They have apportioned the territory amongst themselves, and have brought the natives to a condition of vassalage. Under the protection of an armed guard procured from Khartoom, they have established various depots, undertaken expeditions into the interior, and secured an unmolested transit to and fro. These depots for ivory, ammunition, barter-goods, and means of subsistence, are villages surrounded by palisades, and are called

Seribas.* Every Khartoom merchant, in the different districts where he maintains his settlements, is represented by a superintendent and a number of subordinate agents. These agents command the armed men of the country, determine what products the subjected natives must pay by way of impost to support the guards, as well as the number of bearers they must furnish for the distant exploring expeditions ; they appoint and displace the local managers ; carry on war or strike alliances with the chiefs of the ivory countries, and once a year remit the collected stores to Khartoom.

Both the principal districts of the Khartoom ivory-trade are accessible by the navigation of the two source-affluents together forming the White Nile, viz. the Bahr-el-Ghazal and the Bahr-el-Gebel. The name Bahr-el-Abiad is understood in Khartoom to include the entire domain of the Nile and its affluents above this town, but in its true and more limited sense it signifies only the united mainstream as far as the mouth of the Sobat, "White Nile." Two less important centres are approached by the channels of the Sobat and the Giraffe. The landing-places, called Meshera, are in all cases at a distance of some days' journey from the depots. The trade-winds and the rainy seasons both have their effect in determining the time of year in which progress can be made. They render the passage up stream practicable only from December to February, and limit the valley-journey to June, July, and August. On the Bahr-el-Gebel the extreme point of navigation is the well-known Gondokoro in lat. 5° N., the termination of a series of voyages of discovery. On the Bahr-el-Ghazal a kind of *cul-de-sac* leads to the only existing Meshera. Beyond this, the Khartoom people have already advanced 5° in a southerly, as well as in a westerly direction. In the district of the Gazelle River, the Niam-niam countries form a great source of the ivory-produce ; of the ways which were available, this was the direction which appeared to promise the best opening for the prosecution of my object. Accordingly, I determined to proceed by the Gazelle, and concluded my contract with the Copt Ghattas. He engaged to supply the means of subsistence, and to furnish me with bearers and an adequate number of armed men. He also placed at my disposal a boat for the journey, and it was expressly stipulated that I

* In the Soudan, every thorn-hedge, or palisade, is called a Seriba ; in Syria, also, the portable cane-hedges, for the enclosing of cattle, are termed Sirb, or Sereebe.

should be at liberty to join all the enterprises and excursions of his own people.

The Governor-General laid similar obligations for my protection on all the other chief merchants who had possessions in the territory of the Gazelle. Duplicates of all the agreements were prepared; one copy being retained by me, the counterparts deposited with the local government at Khartoom. After these necessary provisions for my security had been adjusted, there was nothing to hinder me from commencing my real journey. Never before had the Egyptian Government done so much indirectly to co-operate with a scientific traveller; and it was with no little satisfaction that I regarded my budget of documents, which would unlock for me so considerable a section of Central Africa.

In order to have continually about me a number of people upon whose fidelity and attachment I might fairly rely under all circumstances, I took into my service six Nubians, who had settled in Khartoom with their wives and children, and had already travelled in different parts of the Upper Nile. All had previously served under other Europeans. Riharn, the cook, had accompanied Consul Petherick on his ill-fated journey of 1863. Their conduct in no way disappointed me, and I had never any serious cause of complaint against any of them.

At last, all preparations had so far prospered that the journey to the Gazelle River might be commenced on the 5th of January 1869.

Amid the farewell salutations of a large concourse, among which my people counted numerous friends and relations, we pushed off from the shore. Without delay we took our onward course to the mouth of the Blue Nile, doubling the Ras-el-Khartoom, that large promontory, which resembles in form the snout of an animal; it gives its name to the town, and is the partition land between the two arms of the Nile. Bulky and ponderous as was our boat, the power of the north wind laid its hold upon our giant-sail, and carried us with the speed of steam towards the south. On the forenoon of the following day we found ourselves already 1° below the latitude of Khartoom.

The voyage up the White Nile has been very frequently described by various travellers. The districts along the shore mostly retain an unchanging aspect for miles together. Rarely does some distant mountain or isolated hill relieve the eye from the wide monotony. In spite of all, there was no lack of interest.

There is much that cannot fail to make the progress ever striking and impressive.

On the 13th of January, on one of the thronging islands, we had our first *rencontre* with the Shillooks. This tribe of negroes formerly extended themselves much further north than at present, having settlements on all the islands; but now they only exceptionally penetrate to this latitude ($12^{\circ} 30'$) in their canoes of hollow tamarind stems. The Baggara, meanwhile, are ever gaining a firmer footing on the river-banks, and have already with their flocks ventured far to the east of the stream into the land of the Dinka.

The 14th was the first day of ill-luck, which I was myself the means of bringing about. Early in the morning another boat had joined us; and the people wished me to allow them to stay awhile that they might enjoy themselves together. Being, however, at a spot which seemed to me extremely dull, I urged them to go further, so that we could land on a little island that appeared more full of interest. The excursion which I took was attended by a misfortune which befell one of the two men who accompanied me. Mohammed Ameen, such was his name, running at my side, had chanced to come upon a wild buffalo that I had not the least intention of injuring, but which the man, unhappily, approached too near in the high grass. The buffalo, it would seem, was taking his midday nap, and disturbed from his siesta, rose in the utmost fury. To spring up and whirl the destroyer of his peace into the air was but the work of an instant. There lay my faithful companion, bleeding all over, and in front of him, tail erect, stood the buffalo roaring, and ready to trample down his victim. As fate would have it, however, the attention of the infuriated brute was attracted by the other two of us, who stood by looking on speechless with astonishment. I had no gun; Mohammed had been carrying my breech-loader in his hand, and there it was swinging on the left horn of the buffalo. The other man, who carried my rifle, had immediately taken aim, but the trigger snapped in vain, and time after time the gun missed fire. No time now for any consultation; it was a question of a moment. The man grasped at a small iron hatchet and hurled it straight at the buffalo's head from a distance of about twenty paces; the aim was good, and thus was the prey rescued from the enemy. With a wild bound the buffalo threw itself sidelong into the reeds, tore along through the rustling stalks with its ponderous weight, bellowing and shaking all the ground. Roaring and growling, bounding violently

from side to side, he could be seen in wild career, and as we presumed that the whole herd might be in his train, we seized the guns, and made our quickest way to a neighbouring tree. All, however, was soon quiet, and our next thought was directed to the unfortunate sufferer. Mohammed's head lay as though nailed to the ground, his ears pierced by sharp reed-stalks; but a moment's inspection convinced us that the injuries were not fatal. The buffalo's horn had struck his mouth, but, besides the loss of four teeth in the upper jaw and some minor fractures, he had sustained no further harm. I left my other companion on the spot to wash Mohammed, and hastened alone to the distant boat to have him fetched. In three weeks he had recovered.

In a few days we lay-to alongside the village of Kaka, the most northerly place inhabited by Shillooks on the White Nile, and at which the Egyptian Government maintained a depot for corn. Twenty years ago hundreds of Dinka villages stood on this side of the river. From the descriptions of travellers who accompanied the expeditions sent out by Mehemet Ali to discover the sources of the Nile, it has been ascertained that the number of the population here was formerly as important as it now is in the very heart of the Shillook country. As a result of the incessant ravages of Mohammed Kher, the entire eastern shore has degenerated into a forest waste. The river still parts the separate districts of the hostile tribes; but the Shillooks have attempted to settle nowhere except at Kaka in the deserted district; the Dinka, on their part, having withdrawn some days' journey into the interior.

Soon after the arrival of the boat, a great crowd of naked Shillooks, prompted by curiosity, assembled on the shore, my dog being the chief attraction. The first sight of a throng of savages, suddenly presenting themselves in their native nudity, is one from which no amount of familiarity can remove the strange impression; it takes abiding hold upon the memory, and makes the traveller recall anew the civilisation he has left behind.

The dreary steppe in the neighbourhood of Kaka contained nothing that was worth the trouble of collecting. The dried-up remains of vegetation had been completely annihilated by fire. Accordingly I was anxious to proceed farther the same day, that I might botanise in some undisturbed spot of the primeval forest; my desire was, however, frustrated by an incident which I do not even now remember without a shudder. At the village, the shore, as far as the eye could reach, forms a treeless steppe; but at some little distance the

river is again bordered by a dense forest. A place was soon reached, where the stream takes a remarkable bend, and proceeds for eight miles in a north-easterly direction. This place has the singular name of Dyoorab-el-Esh, or the sack of corn. Now, as the north-east wind of course was adverse to any north-east progress, it was necessary that the boat should be towed by the crew. As the rope was being dragged along through the grass on the banks it happened that it disturbed a swarm of bees. In a moment, like a great cloud, they burst upon the men who were towing; every one of them threw himself headlong into the water and hurried to regain the boat. The swarm followed at their heels, and in a few seconds filled every nook and cranny of the deck. What a scene of confusion ensued may readily be imagined.

Without any foreboding of ill, I was arranging my plants in my cabin, when I heard all around me a scampering which I took at first to be merely the frolics of my people, as fun was the order of the day. I called out to inquire the meaning of the noise, but only got excited gestures and reproachful looks in answer. The cry of "Bees! bees!" soon broke upon my ear, and I proceeded to light a pipe. My attempt was entirely in vain; in an instant bees in thousands are about me, and I am mercilessly stung all over my face and hands. To no purpose do I try to protect my face with a handkerchief, and the more violently I fling my hands about so much the more violent becomes the impetuosity of the irritated insects. The maddening pain is now on my cheek, now in my eye, now in my hair. The dogs from under my bed burst out frantically, overturning everything in their way. Losing well-nigh all control over myself, I fling myself in despair into the river; I dive down, but all in vain, for the stings rain down still upon my head. Not heeding the warnings of my people, I creep through the reedy grass to the swampy bank. The grass lacerates my hands, and I try to gain the mainland, hoping to find shelter in the woods. All at once four powerful arms seize me and drag me back with such force that I think I must be choked in the mud. I am compelled to go back on board, and flight is not to be thought of.

In the cooling moisture I had so far recovered my self-possession, that it occurred to me to drag a sheet from my chest, and this at last proved some protection, but I had first gradually to crush the bees which I had enclosed with me within this covering. Meantime by great self-denial and courage on the part of my excellent people, my large dog was brought on board to me and covered with

cloths; the other, an animal from Khartoom, was unfortunately lost. Cowering down convulsively, I lingered out thus three full hours, whilst the buzzing continued uninterruptedly, and solitary stings penetrated periodically through the linen. Everyone by degrees became equally passive as myself; at length a perfect silence reigned on board; the bees subsided into quietness. Meanwhile, some courageous men had crept stealthily to the bank, and had succeeded in setting fire to the reeds. The smoke rose to their assistance, and thus they contrived to scare away the bees from the boat, and, setting it afloat, they drove it to the other bank. Had the thought of the fire occurred at first, our misfortune would have assumed a much milder character; but in the suddenness of the attack everyone lost all presence of mind. Free from further apprehension, we could now examine our injuries. With the help of a looking-glass and a pair of pincers I extracted all the stings from my face and hands, and inconvenience in those places soon passed away. But it was impossible to discover the stings in my hair; many of them had been broken off short in the midst of the fray, and, remaining behind, produced little ulcers which for two days were acutely painful. Poor Arslan, my dog, was terribly punished, especially about the head; but the stings had clung harmlessly in the long hair on his back. These murderous bees belong to the striped variety of our own honey-bee. A mishap like ours has been seldom experienced in the waters of the White Nile. Consul Petherick, as his servants informed me, had once to undergo a similar misfortune. Our own grievance was not confined to ourselves: every boat of the sixteen which that day were sailing in our track was pestered by the same infliction. No imagination can adequately depict the confusion which must have spread in boats where were crowded together from 60 to 80 men. I felt ready, in the evening, for an encounter with a score of buffaloes or a brace of lions rather than have anything more to do with bees; and this was a sentiment in which all the ship's company heartily concurred. I took my quinine and awoke refreshed and cheerful; but several of the ill-used members of our party suffered from violent fever.

Towards midday on the 24th of January we reached Fashoda, and thus, after a prosperous progress, arrived at the limit of the Egyptian empire. Fashoda is the seat of a Mudir, provided with a garrison for the maintenance of Egyptian power. The complete subjection of the entire Shillook country did not, however, follow

until two years after my visit. The governor for a considerable time resided six leagues from the town, where he was quartered with 500 soldiers, in order to bring to reason the southern Shillooks, who were by no means inclined to submit. During this time the armed force in Fashoda did not consist of more than 200 men.

The erection of anything like a town had only been begun within the last two years. The place was formerly called Denab, and now consisted of merely a large mass of conical huts of straw, besides the remarkable structure which constituted the fort. The long boundary walls of the fort, with their hundreds of waterspouts,



VIEW OF FASHODA.

looked at a distance as though they were mounted with so many cannon, and presented a formidable appearance. In reality the number of cannon which the fort could boast was only four, the rest of the field ordnance being in the camp of the Mudir.

All boats are compelled to stop for several days at Fashoda, partly to complete their corn-stores, and partly on account of the poll-tax, to submit to an inspection of the papers which contain the lists of the crew and soldiers. Hence it happens that throughout

January and February Fashoda life is pretty brisk. Egyptian galley-slaves, wearing no fetters—escape being as difficult as in Siberia—loitered on the shore begging, and pestered me with scraps of French and Italian. This I found by no means agreeable. Accordingly I had a tent pitched upon the bank, but from fear of thieves it was obliged to be continually guarded by men with loaded guns. Many boats came and went, wending their way to the Upper Nile waters; all reported that more or less they had been sufferers from the bees in Dyoorab-el-Esh. I was told that the whole crew of one boat was obliged to remain in the water from noon till evening, now and then raising their heads to get air, but always under the penalty of getting some dozen fresh stings.

I remained nine days in Fashoda, a residence to which the non-arrival of the boats bound for the Gazelle River compelled us, because our force was not sufficiently numerous to overcome by ourselves the obstacles which the “Sett,” or grass-barrier, would present, and also inadequate for protection against an attack, which was not improbable, from the hitherto unsubdued residents.

A wider ramble, in which I inspected several Shillook villages, led me farther into the country, and gave me some conception of its thronging population. An Egyptian officer attended me, followed by a number of soldiers, all of us being mounted. Although throughout this tour, I was not offered even a bowl of fresh milk, and saw little beyond what had already come under my observation, viz., grey and rusty-red beings, innumerable conical huts, and countless herds of cattle; yet I could not be otherwise than impressed by various details which appeared characteristic of this people, now incorporated as Egyptian subjects, and which I shall proceed to relate.

The Shillook tribe inhabits the entire left bank of the White Nile, occupying a territory about 200 miles long and about ten miles wide, and which extends right to the mouth of the Gazelle River. Hemmed in by the Baggara on the west, it is prevented by the river from extending itself farther eastward, and only the lower course of the Sobat has any of the Shillooks for its denizens. Their subjection to Egyptian government, which was completed in 1871, has caused a census to be taken of all the villages on the left bank of the Nile, which resulted in an estimate of about 3000. Taking the character of the villages into account this would give a total of above a million souls for this portion of the Shillooks alone. Now the Shillook land, which lies upon the White Nile, has an extent

of hardly less than 2000 square miles,* and when the number of heads upon this is compared with those in the populous districts of Europe we are justified in reckoning from 600 to 625 to a square mile; a result altogether similar is arrived at from a reckoning based on the estimate of there being 3000 villages, each village having huts varying in number from 45 to 200, and each hut averaging 4 or 5 occupants; this would give a total of about 1,200,000. This, in fact, is an estimate corresponding entirely with what the Mudir of Fashoda, who was conversant with the details of all state affairs, had already communicated to me in 1869.

No known part of Africa, scarcely even the narrow valley of the Nile in Egypt, has a density of population so great; but a similar condition of circumstances, so favourable to the support of a teeming population, is perhaps without a parallel in the world. Everything which contributes to the exuberance of life here finds a concentrated field—agriculture, pasturage, fishing, and the chase. Agriculture is rendered easy by the natural fertility of the soil, by the recurrence of the rainy seasons, by irrigation effected by the rising of the river, assisted by numerous canals, and by an atmosphere ordinarily so overclouded as to moderate the radiance of the sun, and to retain throughout the year perpetual moisture. Of fishing there is plenty. There are crocodiles and hippopotamuses in abundance. Across the river there is a free and open chase over wildernesses which would advantageously be built upon, but for the hostility of the neighbouring Dinka. The pasture lands are on the same side of the river as the dwellings; they are just beyond the limits of the cultivated plots; occasionally they are subject to winter drought, and at times liable to incursions from the Baggara; but altogether they are invaluable as supplying daily resorts for the cattle.

Still further proof of the superabundance of population of the Shilooks is manifest from the emigration which goes forward in a south-westerly direction.

It should be appended to what has been said about the villages, that the entire west bank of the Nile, as far as the confines of the district reach, assumes the appearance of one single village, of which the sections are separated by intervals varying from 500 to 1000

* The miles used throughout this work are geographical miles, ($60 = 1^\circ$).

paces. These clusters of huts are built with surprising regularity, and are so closely crowded together that they cannot fail to suggest the comparison with a thick mass of fungus or mushrooms. Every village has its overseer, whilst the overseers of fifty or seventy, or sometimes of 100 villages, are subject to a superintendent, who has the control of what may be called a "district," and of such districts there are well-nigh a hundred, each of them distinguished by its particular name.

In the centre of each village there is a circular space where, evening after evening, the inhabitants congregate, and, either stretched upon hides or squatting on mats of ambatch, inhale the vapour from burning heaps of cow-dung to keep off the flies, or from pipes with enormous clay bowls smoke the tobacco of the country.

In these spaces there is frequently erected the great stem of a tree, on which, according to common African usage, kettledrums are hung and used for the purpose of warning the inhabitants of any impending danger, and of communicating intelligence to the neighbourhood. Most of the negro tribes are distinguished by the form of their huts. The huts of the Shilooks are built with higher walls than those of the Dinka, and, as an ordinary rule, are of smaller circumference; the conical roofs do not rise to a peak, but are rather in the shape of flattened domes, and in this way it is that they acquire the singular resemblance to mushrooms of which I have spoken. The villages are not enclosed externally, but are bounded by fences made of straw-mats running between the closely crammed houses, and which serve for shelter to the cattle of individual householders.

Now although these savages are altogether unacquainted with the refined cosmetics of Europe, they make use of cosmetics of their own; viz., a coating of ashes for protection against insects. Ashes, dung, and the urine of cows are the indispensable requisites of the toilet. The item last named affects the nose of the stranger rather unpleasantly when he makes use of any of their milk-vessels, as, according to a regular African habit, they are washed with it, probably to compensate for a lack of salt.

The external appearance of the Shilooks, therefore, is by no means agreeable, but rather offensive to the beholder, who will hardly fail to notice amongst all the negro people who dwell in the plains of the Upper Nile a singular want of the lower incisor teeth, which in early life are always broken off. Their physiognomy

hardly offers that decided negro type which their swarthy complexion would lead one to expect. To judge by the shape of the skull, this people belongs to the less degraded races of Central Africa, which are distinguished from other negro stocks by a smaller breadth of jaw and by a less decided narrowness of head. A comparison which I made with the skulls which I had collected and some which were taken from ancient Egyptian graves, and with the heads of living fellahs, established the fact of a remarkable resemblance. According to Professor R. Hartmann of Berlin, the similarity between the heads of ancient Egyptians and the Shillooks rests on the projection of the nasal bones; to have these so deeply set as to appear compressed by the forehead, would seem to be discordant with the general type of negro races.

Entirely bare of clothing, the bodies of the men would not of themselves be ungraceful, but through the perpetual plastering over with ashes, they assume a thoroughly diabolical aspect. The movements of their lean bony limbs are so languid, and their repose so perfect, as not rarely to give the Shillooks the resemblance of mummies; and whoever comes as a novice amongst them can hardly resist the impression that in gazing at these ash-grey forms he is looking upon mouldering corpses rather than upon living beings.

The stature of the Shillooks is very moderate, and, as a general rule, is short compared with that of the lank and long-legged Dinka.

Like most of the naked and half-naked Africans they devote the greatest attention to the arrangement of their hair; on every other portion of the body all growth of hair is stopped by its being carefully plucked out at the very first appearance. As has been already observed, amongst the men the repeated application of clay, gum, or dung, so effectually clots the hair together that it retains as it were voluntarily the desired form; at one time like a comb, at another like a helmet, or, it may be, like a fan. Many of the Shilook men present in this respect a great variety. A good many wear transversely across the skull a comb as broad as a man's hand, which, like a nimbus of tin, stretches from ear to ear, and terminates behind in two drooping circular lappets. Occasionally there are heads for which one comb does not suffice, and on these several combs, parallel to one another at small intervals, are arranged in lines. There is a third form, far from uncommon, than which nothing can be more grotesque. It may be compared to the crest

of a guinea-fowl, of which it is an obvious imitation; just as among ourselves many a way of dressing the hair would seem to be designed by taking some animal form for a model.

As far as regards the women—I saw none except those whose short-cropped hair appeared stippled over with fresh-sprouting woolly locks, and resembled the skin of a new-born lamb, like the “Astrachan” of commerce. The women do not go entirely naked, but wear an apron of calf-skin, which is bound round their loins, and reaches to their knees.

Just like the Dinka, whose external habits, apart from their hair-combs, they would appear almost entirely to follow, every man amongst them ordinarily carries a club-shaped crutch, nearly three feet in length, with a heavy round knob at its upper end, but which tapers down to a point at the other extremity, so that it resembles a gigantic nail. Their only arms are their long spiked lances, of which (to judge from the equivalents taken in exchange) one is valued at a Maria Theresa dollar. Bows and arrows are just as unknown amongst them as amongst the neighbouring Dinka, whilst, on the contrary, amongst the Nueir they are the chief weapons.

The domestic animals which the Shilooks breed are oxen, sheep, and goats, the same kinds as hereafter we shall find amongst the Dinka; besides these, they keep poultry and dogs; other animals are scarce, and probably could not endure the climate. Throughout the country dogs abound, in shape like greyhounds, but in size hardly equal to our pointers. They are almost always of a fox-red colour, with a black muzzle, much elongated. Almost beyond example in their activity in leaping and running, so fleet are they that with the greatest ease they outrun the gazelle, and are everywhere of service in the chase; over the earth-walls ten feet high, and over ant-hills, they bound with the agility of cats, and can jump three or four times the length of their own slim bodies. I kept a number of genuine Shilook dogs, which subsequently did very well in the farther interior, and increased considerably. Like all dogs of the Nile district, from the Egyptian pariah to the village cur of the Soudan, this breed is invariably found to be deficient in the dew-claws of the hind foot, which always exist in our European dogs. As a general rule, it may be said the Shilook dog differs little from the races of the Bedouins of Kordofan and of Sennaar.

The only conception which the Shilooks entertain of a higher existence is limited to their reverence for a certain hero, who is called the Father of their race, and who is supposed to have con-

ducted them to the land which they at present occupy. In case of famine, or in order that they may have rain, or that they may reap a good harvest, they call upon him by name. They imagine of the dead that they are lingering amongst the living and still attend them. It is with them as with other uncultivated children of nature that old traditions and veneration of ancestors supply the place of religious legends or ethic system.

Late in the evening of the 1st of February we left Fashoda, and proceeded, without using the sail, for the greatest part of the night along the left bank. At daybreak we arrived at the Egyptian camp. We were received with singing, shouting, and the braying of trumpets. I was conducted by the Governor to his tent, and whilst, hour after hour, we smoked our pipes in company, I related to him the most recent events in the political world. In the Mudir's verandah I also made acquaintance with a Shillook chief, who had entirely surrendered to the Egyptian Government, and was now, as the Governor expressed himself, "coming to his senses." There was no external indication whatever of his rank, unless a miserable rag which hung about his loins, or the common sandals which he wore, might be considered such. His short-cropped hair had no covering; his neck had a row of beads, such as the heads of families are accustomed to wear, worth about a couple of groschen; and this was all the decoration he displayed. He retained now but a shadow of his former power; his better days were gone, days in which, attended by a council of ancestral state, he had swayed the sceptre of patriarchal dignity. Of all the negro races which occupy the entire district of the Nile, the Shillooks used to uphold the most perfectly regulated government, and to appreciate them thoroughly it is necessary to refer to the earliest registries, which those who accompanied the expedition of Mehemet Ali left on record. But now this condition is all changed, and everything has disappeared which gave this independent and primitive people their most striking characteristics.

In the immediate proximity of the camp all was generally at peace; the Shillooks apparently submitted tamely enough to a Government which did not exercise any very tyrannical power, and which contented itself with demanding a supply of bullocks and a stated levy of provisions to maintain the troops. Notwithstanding this usual semblance of concord, the Governor was notoriously on terms of open enmity and feud with the Shillooks in the south Kashgar, another descendant of the ancient reigning family, still

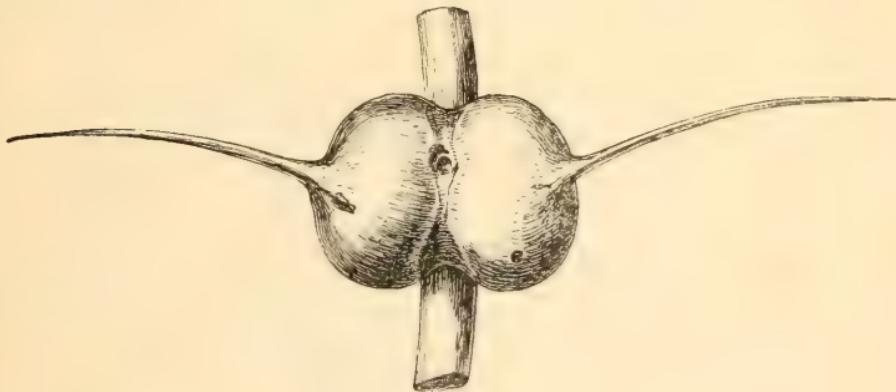
maintained himself as an uncontrolled sovereign, and was able to render that part of the river extremely unsafe for navigation. Ever and again the Governor with his force, never more than 600 strong, was undertaking expeditions against them ; but, as he himself told me, they never came to an actual engagement. Although the blacks, he said, might muster 20,000 or 30,000 strong, the second cannon-shot was quite enough to make them scamper off, and leave their flocks and herds in the lurch ; upon these the mounted Baggara, in the service of the Government, descended and made them an easy spoil. This nomadic race, from time immemorial, has ever been addicted to the plunder of cattle, and has always exhibited a preference for that occupation.

In another respect the situation of the Government here was far from easy. Not only were the Shillooks at heart at enmity to it, but it excited the hostility of the trading companies who ascend the river. Nothing indicates the circumstances better than the expression of a member of one of these companies. "The Mudir," he said, "doesn't like to attack the Shillooks ; he takes care of them, and only wants a few of their bullocks ; but we—we should just like to annihilate them, devil's brood as they are." In fact, as the Mudir said to me, he only wanted the best of the Shillooks ; the Shillooks knew well enough that their "best" was their cattle, and this they were not really resigned passively to surrender, and so they went on and continued to be defiant, till they felt the grenades and rockets scorching their skins.

The acacia-groves in the neighbourhood of Fashoda, were especially worthy of regard. In the winter time, with the greatest ease, in the course of a day a hundredweight of this valuable article could be collected by one man. Not once, however, did I see any one gathering the gum, although the merchants of Khartoom were never in a position to supply enough to meet the demands of Europe. The descriptions of gum, which might be hence brought to the Khartoom market, are those known as Sennaari and Talha, and are, in truth, only of a mediocre quality. Yet they do possess a certain marketable value, and through their abundance could be made to render a very large profit. The acacia-groves extend over an area a hundred miles square, and stretch along the right bank of the stream. The kind which is most conspicuous is the *A. fistula*, which is as rich as any other variety in gummy secretions. I choose this definition of it from its Arabian appellation "soffar," which signifies a flute or pipe. From the larvæ of insects which have

worked a way to the inside, their ivory-white shoots are often distorted in form and swollen out at their base with globular bladders measuring about an inch in diameter. After the mysterious insect has unaccountably managed to glide out of its circular hole, this thorn-like shoot becomes a sort of musical instrument, upon which the wind as it plays produces the regular sound of a flute; on this account, the natives of the Soudan have named it the whistling-tree. It yields a portion of the gum known on the exchange as gum of Gedaref.

Very striking is the sight afforded by the acacia-wood in the months of winter; the boughs, bare of leaves and white as chalk, stretch out like ghosts; they are covered with the empty pods, which cluster everywhere like flakes of snow; whilst the voices of a thousand flutes give out their hollow dirge.



PRICKLES OF ACACIA.

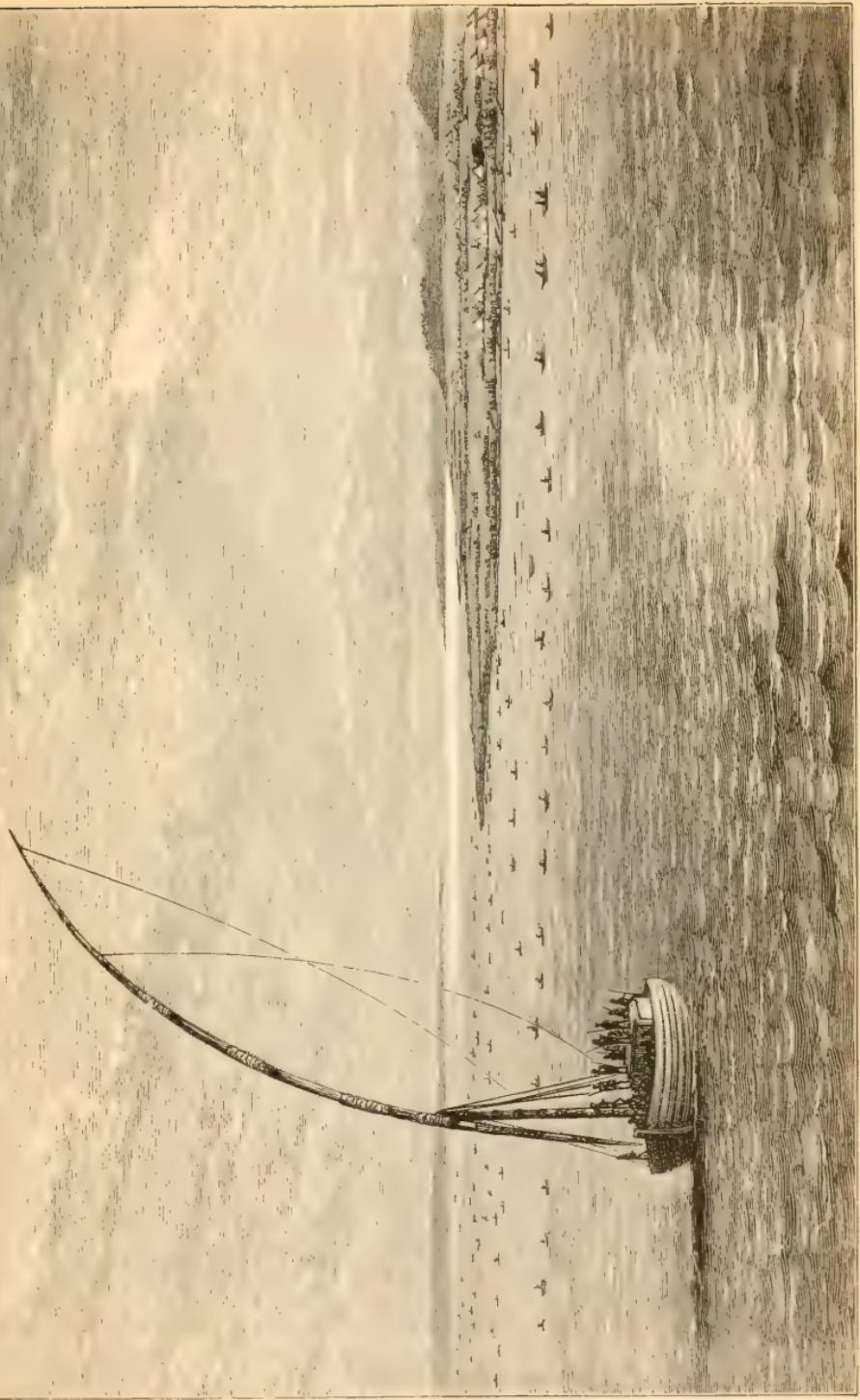
On the 5th of February we finally left the Egyptian encampment, and directed our course up the stream towards the region of the papyrus. After sailing all night we stopped just short of the mouth of the Sobat, on the right bank close to a forest. The progress of the coming days would lead us through an insecure territory; we wanted to make up our supply of wood, and knew that the hostility of the Shillooks would, in many places, render any attempt at landing on our part quite unadvisable. Of the boats which were bound for the Gazelle, only one had arrived. In order to render us assistance, the Mudir had charged the owner not to leave my party in the lurch. This circumstance had a very important effect upon my whole journey, as it was the means of introducing me to Mohammed

Aboo Sammat, who was proprietor of the boat. This magnanimous Nubian was destined to exercise a very considerable influence on my undertaking, and, indeed, he contributed more to my success than all the satraps of the Soudan. During my land journey I had first made his acquaintance, and now he invited me to be his guest until he should have accompanied me to the remotest tribes, a proposal on his part which made my blood tingle in my veins. A native of Dar-Kenoos, in his way he was a little hero. Sword in hand he had vanquished various districts large enough to have formed small states in Europe.

Far as eye can see, the Sobat flows between level banks bounded by unlimited steppes; where it joins the Nile it is about half as broad as the main-stream. For a considerable distance the cloudy milk-white waters, which indicate the mountain stream, can be distinguished as they roll into the deep azure of the White Nile. The Sobat water is, however, far preferable to the Nile water, which, after being strained as it were, through a filter of grass, emerges transparent in colour, but with a flat, earthy flavour, which is highly disagreeable to the palate. The effect of the commingling of the two streams can be distinctly traced as far as Fashoda, where the inhabitants fancy they enjoy some consequent sanitary advantage.

We kept quite close to the right bank of the uninhabited quarter, but on the same day we found ourselves in full flight before thousands of the natives, who, with their light canoes of ambatch, hastened to the bank, and in thick troops prepared to displace us. As fate would have it, just as we were within sight of the dreaded Shillooks, our sailyard broke, and we were compelled to seek the land. Soon rose the cry, "They are coming! they are coming!" for in fact we could see them dashing over the stream with incredible celerity, their canoes as thick as ants upon the water. Hardly had we regained our craft, and made some speedy preparations for defence, when the foremost of the Shilook men, equipped for war, carrying their tufted lances in their hands, showed themselves on the bank which only now we had quitted. Apparently they came to offer some negotiation with us in the way of traffic; but ours was the ancient policy, "Danaos timentes," and we pushed on.

Although, including Aboo Sammat's party, we numbered full eighty armed men, we could not help suspecting that as soon as the north-east breeze should drop, by the aid of which we were going along the stream without a sail, the savages would take advantage



of our bad situation and inadequate fighting force to make an attack upon us.

This fear was not without reason ; there were here, at a guess, at least 10,000 Shillooks on their legs and 3000 ambatch canoes in motion on the river. Accordingly we pushed up the stream, and had an opportunity, from a more secure neighbourhood, to observe the Shillooks more accurately. My telescope aided me in my investigation. I saw crowds of men violently gesticulating and contending, and women burdened with baskets filled with live poultry. After a while the Shillooks, disappointed, began to vacate the bank which we had left, and on the river could now be seen a redoubled movement of the canoes, whilst opposite, fresh multitudes poured in, and gave to the whole scene the appearance of a general emigration of the people.

Within the last three years the boats had been permitted with reluctance, and only when several were together, to approach the shore at this part of the stream, for here it had happened in one single season that five vessels, the property of Khartoom merchants, as they were coming down the river laden with ivory, were treacherously attacked one after the other. The stratagem was employed of diverting the attention of the crews by an exhibition of attractive merchandise ; while the Nubians were off their guard, at a given signal the Shillooks fell upon them and butchered them without exception. Gunpowder, rifles, and valuable ivory, all fell into their hands ; the vessels they burnt. Ghattas himself, the merchant who owned the vessel by which I was travelling, suffered the loss of a costly cargo, while eighty men met with a violent death. Only the Reis and one female slave escaped to Fashoda. Betimes they threw themselves into the water, and concealing their heads with some water-weeds, floated on till the stream carried them out of the reach of harm.

On the following morning, after we had passed the mouth of the Giraffe river, we were joined by a flotilla of six boats. As we reckoned now nearly 350 armed men, we felt that we could venture without risk to enter upon commercial transactions with the Shillooks. The disturbed condition of the country had interfered to prevent them carrying about their merchandise as usual, and they now were collected in unusual numbers at the mart.

From far and near streamed in the natives ; many brought baskets full of corn, eggs, butter, beans, and ostrich-feathers ; others offered poultry, tied together in bunches, for sale : there was

altogether the bustle of such a market as only the largest towns could display. The area was hemmed in by a guard of armed men, whose lances, thick as standing corn, glittered in the sun. The sense of security raised the spirits of the light-hearted sailors, and their merry Nubian songs rose cheerfully in the air. Two hours slipped quickly away, while the necessary purchases were being made, the medium of exchange being white or red glass beads. Soon afterwards a favourable breeze sprang up. Everything was still active in the market; fresh loads came teeming from the villages; the outcry and gesticulations of the market people were as excited as ever, when suddenly there boomed the signal to embark. The confusion, the noise, the hurry which ensued baffle all description; the Shillooks were in a panic, and, imagining that it must be all up with them, scampered off, jostling each other in every direction, whilst we hastened to our boats.

We were not long in leaving the Shillook villages far behind. The inhabited region seemed to recede as our boat made its way along the watercourse. The stream divided itself into a multitude of channels, which threaded their way amidst a maze of islands. The distant rows of acacias on either side were the only tokens to indicate the mainland. This was the day on which at a latitude of $9^{\circ} 30' N.$ we first saw the papyrus. To me, botanist as I was, the event elevated the day to a festival.

The hindrances to our progress caused by the excessive vegetation began now to give us some anxiety. All day long we were bewildered not only by the multiplicity of channels, but by masses of grass, papyrus, and ambatch, which covered the whole stream like a carpet, and even when they opened gave merely the semblance of being passages. It is quite possible that the diversion of its course to the east, which, for sixty miles the Nile here takes, may check the progress of the stream, and be in a measure the cause of such a strange accumulation of water-plants. Were it a coating of ice it would split itself into fragments under the pressure of the stream, but here is a real web of tough tangle, which blockades the entire surface. Every here and there, indeed, the force of the water may open a kind of rift, but not corresponding at all with the deeper and true channel of the stream. Such a rift is not available for any passage of the boats. The strain of the tension, which goes on without intermission, has such an effect in altering the position of the weedy mass, that even the most experienced pilot is at a loss how to steer, consequently every voyage in winter is along a new



course, and through a fresh labyrinth of tangle. But in July, when the floods are at their highest, navigation can be carried on along well-nigh all the channels, since the currents are not so strong, and the vessels are able to proceed without detention to their destinations.

Thick masses of little weeds (*Lemna*, *Azolla*, and *Pistia*) float about the surface of the water, and by forming a soft pulp, contribute an effectual aid to bind together the masses of vegetation. Like a cement this conglomerate of weeds fills up all the clefts and chasms between the grass and ambatch islands, which are formed in the back-water where the position is sheltered from the winds and free from the influence of the current.

On the 8th of February began our actual conflict with this world of weeds. That entire day was spent in trying to force our boats along the temporary openings. The pilots were soon absolutely at a loss to determine by which channel they ought to proceed. On this account two vessels were detached from the flotilla to investigate the possibility of making a passage in a more northerly direction. Two hundred of our people, sailors and soldiers, were obliged to lug with ropes for hours together to pull through one boat after the other, while they walked along the edge of the floating mass, which would bear whole herds of oxen, as I subsequently had an opportunity of seeing.

Very singular was the spectacle of the vessels, as though they had grown in the place where they were, in the midst of this jungle of papyrus, fifteen feet high; whilst the bronzed, swarthy skins of the naked Nubians contrasted admirably with the bright green which was everywhere around. The shrieks and shouts with which they sought to cheer on their work could be heard miles away. The very hippopotamuses did not seem to like it; in their alarm they lifted their heads from the shallows in which they had stationed themselves for respiration, and snorted till the gurgling around was horrible. The sailors, concerned lest by their bulk these unwieldy creatures should injure the boats—not an unknown occurrence—gave vent to the full force of their lungs. This unearthly clamour was indeed the solitary means of defence at their command; in such a turmoil—men and boats in every direction—firing a shot was not to be thought of.

This extraordinary grass-barrier had already been met with at the time of Miss Tinne's expedition in 1863; here again in the summer of 1872 was it found, strong as ever, offering for months

its serious impediments to navigation, and threatening to expose the crews to destitution, if their provisions should fail. The enterprising expedition of Sir Samuel Baker, in 1870-71, suffered repeated hindrances at this spot.

It was not until the summer of 1873 that, at the instigation of the Governor-General of the Soudan, a successful attempt was made permanently to penetrate the mass.

In this laborious fashion we had to toil on for several days. It was only by one of the side-arms of the blockaded main-stream that it was possible to reach the mouth of the Gazelle River. To this backwater the sailors give the name of "Maia Signora," because the access to it is stated to have been discovered by the pilots who conducted Miss Tinné. Ever since the formation of the grass barrier (*el Sett*) there has been no approach to the river of Gondokoro, the Bahr-el-Gebel, except by a long side-arm called the Giraffe River, which is itself almost equally blocked up. Upon the whole we were more fortunate than our predecessors of previous years, because our journey chanced to fall during one of the periodical seasons when the growth of the ambatch is at a standstill. It happened therefore that of the three obstacles which (besides the current and the shallows) are generally to be expected, viz., grass, papyrus, and ambatch, one of the most important did not occur. The close of our first day's exertion found us at night-fall on the southerly side of an island in mid-stream, whence we witnessed a spectacle striking in its way. Through an immense grove of acacias seventy feet high (*A. verugera*), which were remarkable for their resemblance to pine-trees, there gleamed, with the glare of day, the light of huge bonfires of faggots, which the Shillooks had kindled on the opposite bank, and which gave to the tall trees the effect of being truly gigantic.

The 10th was again employed in unrelaxed endeavours to penetrate the grass-bound channels. The patches of papyrus became at once more frequent and more extensive, and here once again, after being long missed, is found the genuine Nile-reed, the "shary" of the ancient Egyptians—the same as the soof of the Bible—which always grows on the shores of the mainland. Somewhat strangely the prevailing river-grass in the upper waters, the *Vossia procera*, is called in Arabic "Om-Soof," the mother of wool. This appellation it derives from the peculiar hairy character of its leaf-sheaths. These have the disagreeable quality of covering the entire bodies of those who may be at work in the grass with a thick

down of adhesive bristles. The sharpness of these and the scratches they inflict increase the irksomeness of the daily labour at the grass-barrier. Still the great prairies amidst which the flood pursues its course afford an inexhaustible pasturage ; cattle, sheep, and horses, all graze upon them, and no herbage is there that they prefer to the "Om-Soof." At the close of the day, we again arrived in open water, and lay-to for the night by the left bank, which presented a wide steppe entirely bare of trees.

Up with the sun, with sail hoisted to a moderate breeze in our favour, off we were on the following morning ; short-lived, however, was our propitious start. Too soon the open water branched out into a labyrinth of channels, and the bewildered navigators lost all clue as to the actual direction of the stream. The projections of the green islets were always crowned with huge clumps of papyrus, which here grows in detached masses. It probably delights most in quiet waters, and so does not attain to the form of a high unbroken hedge, as on the upper banks of the Gazelle, for here, on account of the numerous stoppages, the stream flows through the narrow channels with extraordinary violence. The strength of the stream often makes towing impracticable, and the sailors have considerable difficulty in swimming through it to the papyrus-bushes, when they want to attach to their solid stems the ropes which are thrown out from their boats. This was the way in which we from sheer necessity sustained the resistance of the current. The depth of the channel was quite sufficient in itself to allow us to proceed, as our vessels drew only three feet of water ; but the passage had become so contracted that at sunset we fastened ourselves to the papyrus-stems, quite despairing of ever being able to make further progress in this direction.

It was one of those marvellous nights when the unwonted associations of a foreign clime seem to leave an indelible impression on the memory of the traveller. Here were the dazzling sparks of the glow-worm, glaring upon us like a greeting from our far-off home, and in countless masses glittering upon the dewy stalks of the floating prairie. In the midst of these were fastened our boats, hemmed in as firmly as though they were enclosed by polar ice. Loud was the rushing of the stream as it forced a way along its contracted course ; but louder still was the incessant splashing of the emerging hippopotamuses, which had been driven by the vessels, as it were, into a corner, and were at a loss, like ourselves, how to go on or to retreat. Until daybreak their dis-

quietude continued, and it seemed as though their numbers kept increasing, till there was quite a crowd of them. Already during the afternoon they had afforded a singular sight: whilst about half of our men were wading in shallow water and straining at the ropes, they found that they had entirely enclosed no less than six hippopotamuses, whose huge flesh-coloured carcasses, dappled with brown, rose above the surface of the water in a way but rarely seen. A cross-fire was opened upon them from several vessels, but I could not make any use of my elephant-rifle, because about 200 of our men were towing upon my line of sight. The clumsy brutes snorted and bellowed, and rolled against each other in their endeavours to escape; their ponderous weight bore down the tangle of the water-growth, and the splashing was prodigious.

Four days had now been consumed in this strain and struggle; after a final and unavailing effort on the fifth day, there seemed no alternative but to go back and make trial of another and more northerly branch of this bewildering canal-system. We succeeded in our retrograde movement so far as to attain an open basin, and found that we had only the distance of about 200 feet to get over, to reach the spot whereat the various streams of the Upper Nile unite. This place on the maps is distinguished by the name of Lake No, but the sailors always call it Mogren-el-Bohoor, *i.e.*, the mouth of the streams. The difficulties which met us here were apparently quite hopeless. Our boats were not only heavily laden with corn, but, formed of the heaviest wood, their build was unusually broad and massive. Yet heavy and unwieldy as they were, there was no alternative but literally to drag them over the grass. By dint, however, of main force, before the day was out the task was accomplished. The grass mass itself was lifted and pushed in front, whilst the men turned their backs against the sides of the boats, and pressed them on from behind. I was the only passenger to remain on board, because, being fearful of a chill which might result in fever, I dared not venture into the water.

In order to reach the Gazelle it is necessary to bend westwards along the gradually narrowing lake-basin. At no season of the year is this water otherwise than shallow; even at the time of our retrograde voyage, when the floods were highest, we stranded more than once. Floating islands of papyrus of considerable extent were visible every here and there, and broke the uniformity of the expanse.

The passage which leads to the Gazelle has the essential properties

of running water, although the stream itself is in winter scarcely perceptible. The river, however, is surrounded by such a multiplicity of backwaters and waters remaining in old river-beds, that the united volume of such a number of streams as I saw emptying themselves into it at various times, through some hundreds of miles, could not possibly find its exit through this single channel alone. Petherick, in 1863, at the period when the water-floods were as low as possible, estimated the volume of waters to be rolling on at the rate of 3042 cubic feet a second ; but he must have referred simply to the navigable channel at the mouth, without intending to represent that the calculation referred to the entire mass of the waters.

It remains still a matter of dispute which of the two currents should be considered as the main-stream. According to analogy, as the Sobat is related to the Blue Nile, so the Bahr-el-Gebel is to the Bahr-el-Abiad, just as the Blue Nile is to the Nile of Egypt. This is, however, merely an hypothesis.

One of the objects contemplated in my journey was to show the importance of the western affluents of the Nile which unite in the Gazelle ; and I have given evidence that, one way and another, they traverse a region of not less than 150,000 square miles. When I mention that in 1863 Speke called the Gazelle an "unimportant branch,"* and moreover that Baker has spoken of its magnitude with great depreciation, in reply, I might allude to another interesting fact in geographical annals. Not only did Bruce, a hundred years ago, suppose that he had discovered the sources of the Nile in Abyssinia, just where a hundred years previously they had been marked upon the Portuguese maps ; but he represented the Bahr-el-Abiad as an inconsiderable stream, which joined the stream of his discovery at Halfaya, Khartoom at that time being not in existence. But it is absolutely impossible that Bruce could have returned from Sennaar to Berber along the left bank of the Blue Nile, and could have crossed at its mouth from the very spot where Khartoom now stands, without being aware that close behind him there was rolling its waters a stream as broad again as the Blue Nile. The record of his travels does not contain one word about the White Nile. The plain truth is that the White Nile was overlooked and disparaged, because it would have thrown his Blue Nile into the shade.†

* Speke, p. 209 : " We found only a small piece of water, resembling a duck-pond buried in a sea of rushes."

† The words of the far-famed traveller are :—" It runs from Sennaar

The wind was favourable, and so long as the course maintained a north-westerly direction we made a rapid progress. The main channel gradually contracted, however, and deviated into many abrupt meanderings, which had to be traversed by pushing and driving with poles. Here, too, the apparent banks consisted of floating grass-tangle, though further off the pasturing herds of the Dinka showed the true position of the mainland, whilst the ridge of forest beyond indicated the limit to which the inundations had extended. North of the mouth of the Gazelle the boundaries of the Shillooks and the Dinka meet each other, and the intervening territory is inhabited by the Nueir.

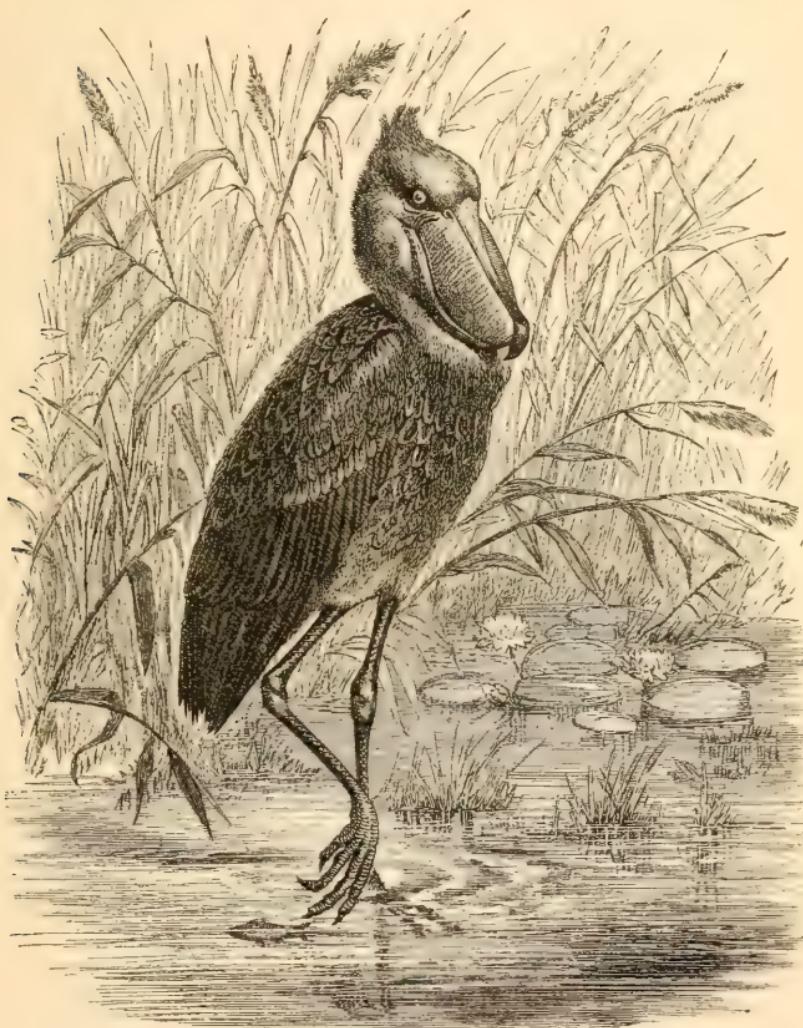
The Bahr-el-Ghazal may in some respects be compared to the Havel as it flows between Potsdam and Brandenburg; the two rivers are not dissimilar in their excess of floating vegetation, composed of plants which, to a great extent, are identical in their generic character. Frequently the breadth is not more than enough for a single vessel, but the depth could not be fathomed by our longest poles, and thus revealed what was the enormous volume of water concealed by the carpet of grass for two hundred paces on either hand. What ordinarily appears to be land assumes at high water the aspect of an extensive lake; but nowhere did the river-bed appear to me to extend, like the valley of the Egyptian Nile, to a breadth of eight miles.

The second day of our voyage along the river brought us to the district tenanted by the Nueir. We found them peacefully pasturing their flocks and herds beside their huts, and betraying nothing like fear. They had been represented to me as an intelligent people; seeming to know what they had to expect or dread, they were disposed for friendly intercourse with the Khartoomers, who, in their turn, were not inclined to commit any act of violence upon their territory.

Most of the Nueir villages lie on a spot where the Gazelle makes a bend from a north-easterly to a south-westerly direction. As we were making our way past the enclosures which lie on either side of the stream, my attention was arrested by the sight of a number of some of the most remarkable birds that are found in Africa. Strutting along the bank, they were employing their broad bills to grope in

past many considerable villages, which are inhabited by white men of Arabia. Here it passes by Gerri [now Khartoom], in a north-easterly direction, so as to join the Tacazze."—Bruce, b. vi. c. 14.

the slimy margins of the stream for fish. The bird was the *Balæniceps Rex*, a curiosity of the rarest kind, known amongst the sailors as the Aboo-Markoob (or father of the slipper), a name derived from the peculiar form of its beak. Its scientific name is



BALÆNICEPS REX.

due to the disproportionate magnitude of its head. Before 1850 no skins of this bird had been conveyed to Europe ; and it appeared unaccountable to naturalists how a bird of such size, not less than

four feet high, and of a shape so remarkable, should hitherto have remained unknown; they were not aware that its habitat is limited to a narrow range, which it does not quit. Except by the Gazelle and in the central district of the Bahr-el-Gebel, the *Balaeniceps* has never been known to breed.

The first that appeared I was fortunate enough to hit with a rifle-ball, which wounded it in its back, and brought it down: we measured its wings, and found them to be more than six feet across. Another was struck, but although it was pursued by an active party of Nubians, it effected an escape. As generally observed, the bird is solitary, and sits in retired spots; its broad beak reclines upon its crop, and it stands upon the low ground very much as it is represented in the accompanying illustration: it occasionally occupies the ant-hills which every here and there rise some feet above the vegetation. The great head of the bird rises over the tall blades of grass and ever betrays its position. Its general structure would class it between a pelican and a heron, whilst its legs resemble those of a maraboo; it snaps with its beak, and can make a clattering noise like the stork. The colour of its plumage in winter is a dingy light brown, the wings are black, and it seems to fly with difficulty, carrying its ungraceful head upon its neck at full stretch, like a heron. The birds build in the rainy season, always close to the open water, forming their great nests of ambatch-stalks.

At the next groups of huts we made a stop, and did some bartering with the Nueir, who brought sheep and goats for exchange. Here, in the heart of the Nueir population, in a district called Nyeng, we fixed our quarters until the 16th. I made use of the time to spend the whole day in my ambatch-canoe, collecting the water-plants from the river.

The Nueir are a warlike tribe, somewhat formidable to the Dinka. They occupy a territory by the mouths of the two tributaries of the White Nile, and are evidently hemmed in by hostile neighbours. In most of their habits they resemble alike the Shillooks and the Dinka, although in their dialect they differ from both. The pastureage of herds is their chief pursuit. The traveller who would depict their peculiarities must necessarily repeat much of what he has already recorded about the other tribes. With regard to apparel it will suffice to say that the men go absolutely naked, the women are modestly girded, and the girls wear an apron formed of a fringe of grass. Their hair is very frequently dyed of a tawny-red hue by being bound up for a fortnight in a compo of ashes and cow-dung;

bit occasionally it is cut quite short. Some of them weave cotton threads into a kind of peruke, which they stain with red ochre, and use for decoration where natural locks are not abundant. Their huts resemble those of the Dinka; always clean, the dwellings are surrounded by a trampled floor; the sleeping-place inside is formed of ashes of cow-dung, burnt perfectly white.

Nowhere in the world could a better illustration be afforded of the remarkable law of Nature which provides that similar conditions of existence should produce corresponding types amongst all ranks of animal creation. It does not admit of a doubt that men and beasts in many districts of which the natural features are in marked contrast to the surrounding parts do exhibit singular coincidences, and that they do display a certain agreement in their tendencies. The confirmation of this resemblance which is offered by the Shillooks, the Nueir, and the Dinka is very complete; these tribes, stationed on the low marshy flats which adjoin the river, are altogether different in habit to those which dwell among the crags and rocks of the interior. "They give the impression," says my predecessor Heuglin, "that amongst men they hold very much the same place that flamingoes, as birds, hold with reference to the rest of the feathered race;" and he is right. Like the birds of the marshes, they are accustomed for an hour at a time to stand motionless on one leg, supporting the other above the knee. Their leisurely long stride over the rushes is only to be compared to that of a stork. Lean and lanky limbs, a long, thin neck on which rests a small and narrow head, give a finishing touch to the resemblance.

Leaving the last dwellings of the Nueir behind us, we arrived on the following day at the first wood which is to be observed on the banks of the Gazelle. Ant-hills of more than ten feet high are here scattered in every direction, and alone break the universal levelness of the plain. Vestiges of the flood are traceable upon them, and show that the average difference between the highest and lowest level of the water is from three to four feet.

The river wends its way through charming wood-scenery, meandering amidst groves gay with the red bindweed (*Ipomoea*), amidst which now and then a tall tamarind uprears itself.

The wind next day was not propitious, and the boats were obliged to stay beside a grass-tangle by the bank. I made use of the detention to enjoy a little fishing for water-plants. The water-lilies surpassed all description, and would adorn any Victoria-house. The river, which was ordinarily about 300 feet wide, abounded in thick

masses of potamogeton, trapa, and yellow ottelia. The seeds of this last plant much resemble the sesamum, growing like the seeds of the *Nymphaea* in a slimy gelatinous mass; they are collected by the natives, and, after being dried, are pounded down into a sort of meal.* It surprised me very much to learn that the eatableness of the water-nut (*Trapa*) was unknown to the Dinka, although it grew in such abundance on the river.

We landed, towards evening, close below the mouth of the Bahr-el-Arab in a forest of lofty trees.

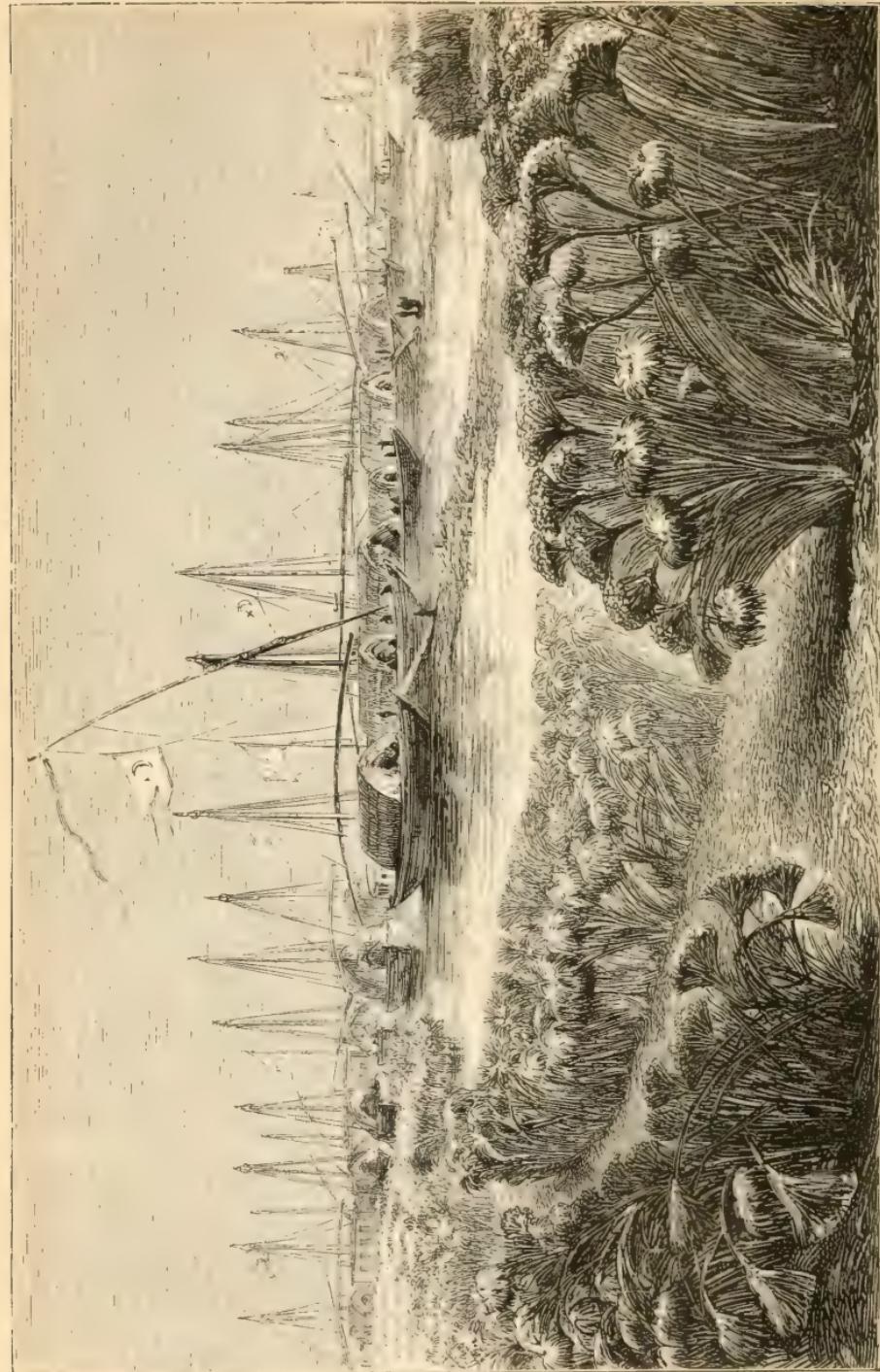
The Gazelle, at the place where the Bahr-el-Arab empties itself, has a width of about 1000 feet. This mouth is itself not much less, but just above the mouth the condition of the Gazelle is so different that it must be evident to every sailor that the Bahr-el-Arab plays a very important part in contributing to the entire system.

What the sailors mean by the Bahr-el-Ghazal is really only the channel as far as they navigate it; to them it is not a stream, in a hydrographical sense, such as either the Bahr-el-Arab or the Bahr-el-Dyoor. It is only at the mouth of the Bahr-el-Arab that there first appears a measurable current, and the fairway, which up to that point is not above 15 feet deep, is subsequently never less than twice that depth. After getting every information I could in the remotest west, I come to the conclusion that the Bahr-el-Arab is the main-stream. Even at a distance of 300 miles above its mouth it is found throughout the year as a stream which cannot be forded, but must be crossed in boats, whilst the Bahr-el-Dyoor cannot be traced at all at so great a distance from its union with the Nile. The Gazelle, associated as it is with the Bahr-el-Arab and the Bahr-el-Dyoor, is a river just as truly as either of the others. The fall of the water in the Gazelle is only produced by the torrent driven from the south and west, and may hardly admit of being estimated, since the entire difference measured between Khartoom and the Meshera (the termination of the navigable course) does not altogether amount to 100 feet.

An important change in the scenery of the shores supervened upon a further progress. The lake-like surface of the water gave to the Bahr-el-Ghazal the semblance at first sight of being merely an extensive backwater. That just above the mouth of a stream so considerable as the Bahr-el-Arab there should be this abundance

* From the most remote ages *Nymphaea*-seeds have been used as food in the land of the Pharaohs. Tradition ascribes the practice to the ancient king Menes.

VIEW ON THE MESHERA (PORT REK).



of water at the very time of the year when it was at its lowest ebb, was a circumstance which could not fail to confirm the supposition which I entertained when I entered the Gazelle: I was certain that the narrow channel through which we travelled in the district of the Nueir could not possibly be the entire river; and there surely must exist to the north of the river other not inconsiderable arms, which are inaccessible on account of the denseness of the river grass.

Unhindered by any material obstacles, our course now lay between floating islands, which were partly adorned with variegated blossoms, and partly loaded with a luxuriant growth of splendid ferns. The poles sufficed to keep the boats from the floating vegetation, the masses of which were as unyielding as though they had been sheets of ice. It was evident by the motion of these masses, that the current, though it flowed languidly, had a continued progress towards the east. The river only varies in depth from about 8 to 14 feet. The bed presents the appearance of a meadow, in which little bright tortoises (*Pelomedusa Gehafie*) enjoy their pasture. This submerged sward is composed exclusively of the Ethiopian vallisneria, of which the female blossoms, affixed to spiral peduncles, rise from a fathom deep to the surface of the stream, their coiling stalks extending far and wide. Very wonderful is this plant in its sexual development; its northern sisters haunt the waters of the Po and of the Rhone, and have furnished a theme for the admiration of the poet.

In the early morning hours of the 22nd of February we found ourselves at the Meshera, the landing-place of all who resort to the Gazelle. This place is marked in the maps as Port Rek, called so from the Rek, a section of the Dinka. These Rek people were the first allies among the natives that the new-comers had acquired, and they had been accustomed to provide them with bearers long before the Khartoom merchants had established any settlements in the interior. Deducting the days on which we had not proceeded, our boats had taken thirty days in going from Khartoom to the Meshera. I had been anxious to make a good investigation of the river-banks; otherwise the voyage might easily be accomplished in twenty days.

Let us for a moment review the impressions we have gained. The volume of water brought by the Gazelle to swell the Nile is still an unsolved problem. In the contention as to which stream is entitled to rank as first-born among the children of the great river

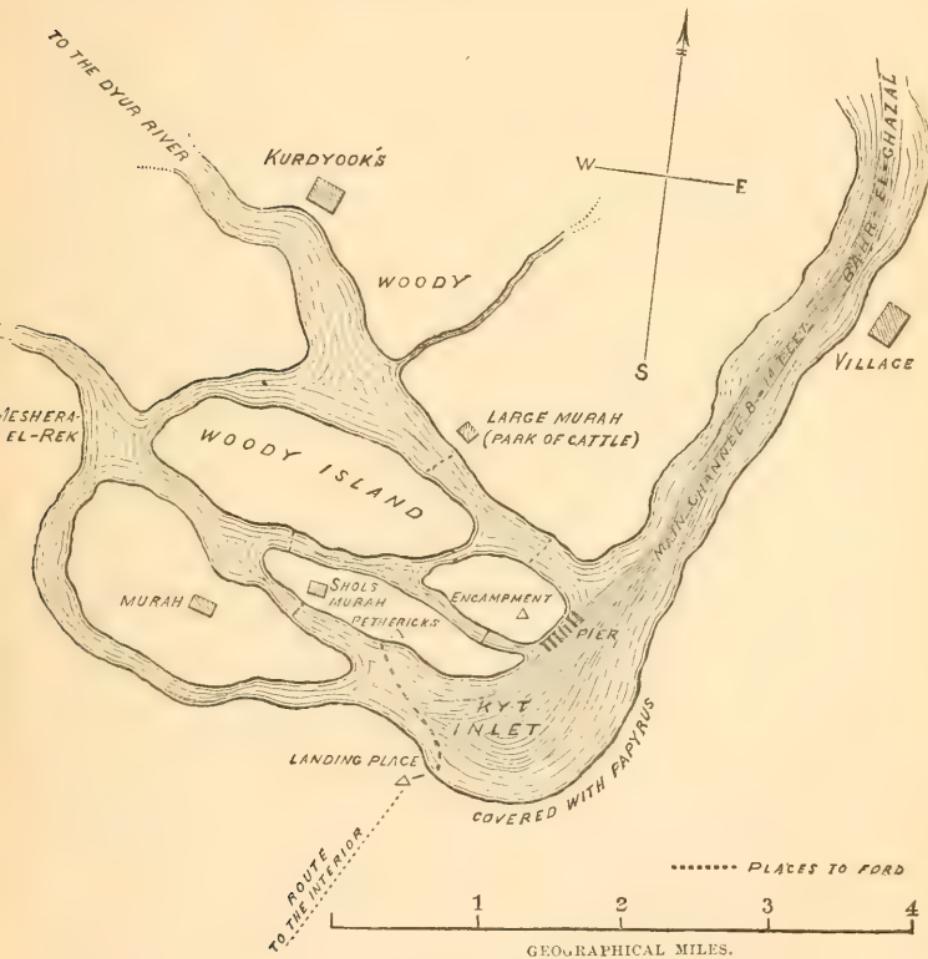
god, the Bahr-el-Ghazal has apparently a claim in every way as valid as the Bahr-el-Gebel. In truth, it would appear to stand in the same relation to the Bahr-el-Gebel as the White Nile does to the Blue. At the season when the waters are highest, the inundations of the Gazelle spread over a very wide territory; about March, the time of year when they are lowest, the river settles down, in its upper section, into a number of vast pools of nearly stagnant water, whilst its lower portion runs off into divers narrow and sluggish channels. These channels, overgrown as they look with massy vegetation, conceal beneath (either in their open depth, or mingled with the unfathomable abyss of mud) such volumes of water as defy our reckoning. The Gazelle then it is which gives to the White Nile a sufficient impetus to roll its waters onwards; subsequently the Bahr-el-Gebel finds its way and contributes a more powerful element to the progress of the stream. It must all along be borne in mind that there are besides two other streams, the Dyoor and the Bahr-el-Arab, each of them more important than any tributary of the Bahr-el-Gebel; and these bring in their own influence. To estimate aright the true relation of all these various tributaries is ever opening up the old question in a new light.

The ramifications above the mouth of the Bahr-el-Arab are very complicated, and must be very imperfectly traced on our present maps. The map issued by Lejean has many details, but must be accepted with caution, and requires us to remember that paper is patient of error as well as of truth. Whoever has traversed the lakes (so to call them) to the west of the Bahr-el-Arab, has, almost immediately beyond the mouth of the Dyoor, come upon the winding channel known as "the Kyt." The shores of the Kyt are firm; there are detached groups of papyrus driven by the wind sometimes to its one bank, and sometimes to the other; its waters rise and fall, but have no other apparent motion; it widens at its extremity into a basin of papyrus, which was now open, but which in 1863 was entirely choked by ambatch. Heuglin, at that date, discerned as he thought, in the dwindled and distorted stems a prognostication of an approaching disappearance of the ambatch; and from 1869 to 1871 there was no trace of it. Various openings were made by the water towards the west among the masses of papyrus, which enclosed a labyrinth of little wooded islets.* One of these islands was the resting-place for the boats, and close at hand the voyagers

* In the accompanying plan it is attempted to give some general idea of this confusion.

established their temporary camp. Being surrounded on every side by the water, all was secure from any hostile attack. The regular landing-place was on the southern shore of the basin, and thence would commence the expeditions to the interior.

Such is the channel which, from the times of the earliest ex-



THE MESHERA.

plorations, which appear to extend from the date of Nero's centurions, mentioned by Seneca, up to the mercantile enterprises and voyages of discovery of the last ten years, has always brought boats to that *cul-de-sac* called by the Nubian sailors their Meshera. The first boat which actually entered the Gazelle was that of a

Khartoom merchant, named Habeshy, in 1854; two years later followed Consul Petherick, the first to open mercantile transactions with the tribes resident in these remote regions.

At that time, when nothing was known either of the Dyoor or of the Bahr-el-Arab, it must have been no small surprise to the first explorers to see a stream so large suddenly end amongst a labyrinth of small islands, without any navigable affluent. Only by the help of a native pilot was such a discovery possible.

I was compelled to linger out the remainder of February and the greater part of March in camp upon the little island, pending the arrival of the bearers who were to help me onwards to Ghattas's Seriba. I was happy in escaping any ill effects such as might be dreaded from a protracted residence by this unhealthy river. I attributed my immunity in great measure to the precautionary use of quinine. Although by my daily occupations, botanizing in swamps and continually wading amongst papyrus clumps, I had been more exposed to malaria than many others, I experienced no sickness. I swallowed every day, in three doses, eight or nine grains of quinine, enclosed for that purpose in gelatine capsules; this method is to be strongly recommended to every traveller, since the intense bitterness of the medicine taken in its undisguised form may excite a degree of nausea which, I can well believe, may contribute its part to a liability to fever. This treatment I continued, without its having any ill effect upon my constitution, until I could dispense with it in the purer air of the interior.

It is only too well known how many victims this treacherous climate has already claimed; it may without exaggeration be maintained, that half the travellers who have ventured into the swamps have succumbed to fever. The highest mortality was in the settlements of the Austrian mission in Gondokoro and St. Cross, now long since abandoned. Miss Tinne's expedition of 1863 suffered the loss of five out of its nine European members, among them my unfortunate predecessor in the botanical investigation of this district, Dr. Steudner, who died suddenly quite at the beginning of the journey. Heuglin, too, lost the greater part of his valuable time in continual relapses of fever. The foundations of these miserable attacks had probably been laid in the miasma, of which the traveller had inhaled the poison during a protracted sojourn in the Meshera.

Most of the islands of the Meshera were adorned by graceful masses of bushes and by light groves of the larger trees, but the

hatchet of strangers every year was altering this condition of things. In spite of all the uniformity of the tall papyrus-bushes, and notwithstanding the burnt and dry appearance of the steppe-grasses, there was no lack, even in the mild winter of this little island-world, of the charms of scenery. The dark crowns of the ever-green tamarind stood out in sharp outline against the bare rugged branches of the acacias in their grey winter garb, between which the eccentric shapes of the candelabra-euphorbiæ, closely interlaced, bounded the horizon in every direction, and formed, as often as the eye wandered over the neighbouring islands, a fine gradation of endless shades of colour. This was especially noticeable in the early morning, when at sunrise a heavy mist hung over the damp flats, and sometimes here, sometimes there, set limits to the prospect, in a way that would lend enchantment to any scenery.

The natives, who occupy the entire land in a wide circumference from the Meshera, form a portion of the great Dinka family, whose extreme outposts extend eastwards towards the Egyptian borders of Upper Sennaar, and whose tribes are counted by the hundred.

One of the most influential personages of the neighbouring race of the Lao was a woman, already advanced in years, of the name of Shol. She played an important part as a sort of chief in the Meshera, her riches, according to the old patriarchal fashion, consisting of cattle. As wealthy as cattle could make her, she would long since have been a prey to the Nubians, who carry on their ravages principally in those regions, if it had not chanced that the intruders needed her for a friend. They required a convenient and secure landing-place, and the paramount necessity of having this induced them to consider plunder as a secondary matter. The boatmen accordingly respected the bank of the river which was the resort of Shol's herds; whilst Shol, on her part, used all her influence to keep her tribe on friendly terms with the strangers. The smallest conflict might involve the entire loss of her property.

Old Shol did not delay, but the very first day came to my boat to visit me. On account of the colour of my skin, the Nubians had told her that I was the brother of the Signora (Miss Tinné). My pen fails in any attempt to depict her repulsiveness. Her naked negro skin was leathery, coarse, and wrinkled; her figure was tottering and knock-kneed; she was utterly toothless; her meagre hair hung in greasy locks; round her loins she had a greasy slip of sheep-skin, the border of which was tricked out with white beads and iron rings; on her wrists and ankles she had almost an arsenal

of metal, links of iron, brass, and copper, strong enough to detain a prisoner in his cell ; about her neck were hanging chains of iron, strips of leather, strings of wooden balls, and heaven knows what lumber more. Such was old Shol.

A soldier, who had formerly been a Dinka slave, acted as interpreter. For the purpose of impressing me with a due sense of the honour of the visit and in the hope of getting a present, he began



OLD SHOL.

to extol Shol and to enlarge upon the multitude of her cattle. All the sheep-farms, of which the smoke rose so hospitably to the stranger, were hers ; hers were all the bullock-runs along the river-banks ; the murahs which extended in every direction of the compass, were hers ; she had at least 30,000 head of cattle ; in addition to which I could form no conception of the iron and copper rings and chains which filled her stores.

After this introduction the conversation turned upon Miss Tinné, who remained fresh upon the memory of all. Her liberality in making presents of beads had secured her a fame like Schiller's "Mädchen aus der Fremde," the spring, who brought a gift for every one.*

With rambles in the neighbourhood and in receiving a succession of visitors, I found the days pass pleasantly away.

On the 26th of February the old queen came to the tent which I occupied on the island, having been informed that the presents designed for her majesty there awaited her. On this occasion she had a costume somewhat different. She had made a fresh selection of paraphernalia from her iron rings and chains, and so arrayed herself anew. I had prepared everything for a stately reception, as I was anxious to leave behind me an impression as favourable as Miss Tinné. There were beads as large as eggs, such as never before were seen in this country; there were marbles of green and blue from the Oriental plains: she was told they were for her. Next there were chains of steel; these, too, were hers: then that majestic chair of plaited straw; she could scarcely believe that she was to have it for her throne. But the crowning charm of all was an immense bronze medal, with a chain of plated gold, which she could hang about her neck; it was, in fact, a commemoration of a German professor's jubilee, with the Emperor's likeness upon it; but no one can conceive the admiration it excited. She was really touched, and the sailors and soldiers seemed to like the medal as much as she did. The gifts which were made to me in return consisted of a calabash full of butter, a goat, a sheep, and a splendid bull of a peculiar breed, without horns.

* An account of Miss Tinné's travels, may be found in Th. von Heuglin's 'Reise in das Gebiet des Weissen Nils' (Leipzig, 1869).

CHAPTER II.

Start for the interior—Flags of the Khartoomers—Comfortable travelling with bearers—The African elephant—Disgusting wells—Wide sand-flats—Village of Take—Halt in the village of Kudy—Description of the Dinka—Dyeing of the hair—Nudity—“The Turkish lady”—Iron age—“People of the stick”—Weapons of defence—Choice cookery—Snakes—Tobacco-smoking—Construction of huts—Dinka sheep, goats, and dogs—Reverence for cattle—Degeneration of cows—Large murahs—Instance of parental affection—Forest district of the Al-Waj—Arrival at Ghattas’s Seriba—Salubrity—Management—The daughter Seriba Geer—Bit of primeval forest—Trip to the Dyoor and Wow—Good entertainment—Old servant of Petherick’s—Antinori and Vays-sière—Hornblende—Height of water of Dyoor—Apostrophe to the river—A model Seriba—The Wow—Seriba Agahl—Wild buffaloes—Instability of dwellings—Caama and Leucotis antelopes—Pharaoh-palms.

It was not until the eighteenth day of our sojourn in the Meshera that Ghattas’s second boat arrived, conveying the remainder of the newly-enlisted mercenaries and a year’s provisions for the Seriba. The agent on board was commissioned to procure for me from the interior whatever porters were requisite for my progress. The shortest possible time that must elapse before he could get to the Seriba and back was eleven days; punctually at the end of that period he returned, and placed at my disposal seventy bearers. Thus fortunately I had time enough and to spare before the commencement of the rainy season to start for the interior.

By the 25th of March all arrangements for setting out were complete, and we were ready to turn our backs upon the damp air of swamps with its nightly plague of flies.

Several smaller companies having joined Ghattas’s expedition, the number of our caravan was a little under five hundred. Of these the armed men alone amounted to nearly two hundred; marching in single file they formed a long column, and constituted a force with which we might have crossed the largest state of Central Africa unmolested. Our course for six days would be through a

notoriously hostile country, so that this protection was quite necessary ; but the caravan, extending fully half a mile, was of a magnitude to require great order and circumspection. Each division had its banner, and to each was appointed its proper place in the procession. The different companies of the Khartoom merchants were distinguished by the colour of their banners, all emblazoned by the star and crescent of Islam. Instead of this, Ghattas, as a Christian, had a white flag, on which were worked the crescent and a St. Andrew's cross. This compromise between the crescent and the true cross did not, however, exclude certain passages from the Koran, relating to the conquest of unbelievers, and which could not be permitted to be wanting on any Khartoom banner.

To a naturalist on his travels, the employment of men as a means of transport appears the perfection of convenience. Apart from the despatch and order in starting, and the regular continuous progress, he enjoys the incalculable advantage of being able to reach his baggage at any moment, and to open and close again without loss of time any particular package. Any one who has ever experienced the particular annoyance of camel-transport will be quite aware of the comparative comfort of this mode of proceeding. Thus entirely on foot I began the wanderings which for two years and three months I pursued over a distance of more than 2000 miles. Neither camels nor asses, mules nor horses, teams of oxen nor palanquin-bearers contributed their aid. The only animal available, by the help of which Central Africa could be opened to civilisation, is exterminated by fire and sword ; the elephant is destroyed mainly for the purpose of procuring for civilised nations an article wherewith to manufacture toys and ornaments, and Europeans still persevere in setting the savages a pernicious example in this respect.

There is sufficient evidence to show that the African elephant, which at the present time appears to surpass the Indian species as much in wild ferocity as in size, was formerly tamed and trained in the same way as the elephant in India. Medals have come down to us which portray the considerable differences between the two species. They show the immense size of the ear of the African elephant, and prove beyond a doubt that it was once employed as a domestic animal. The state of torpor to which, since the fall of the Roman Empire, all the nations of the northern part of Africa have been reduced, is sufficient explanation why the worth of this animal should have been suffered to fall into oblivion. The elephant takes as long as a man to grow to maturity, and it could hardly be

expected of the Arabs that they should undertake the tedious task of its training; and certainly it could not be expected of Turks, who have hardly patience to wait for the fruits of one year's growth, and who would like the world to have been made so that they could pick up their guineas already coined on the mountains. It would be no unfortunate event for Africa if some of the European philanthropists, who now squander their homœopathic charities on the welfare of the negroes, were to turn their sympathy a little to the pitiable lot which has befallen the elephant. The testimony of Burton in his 'Nile Basin' is, that not only might elephants be made useful to man, but that they appear to possess an instinct which is quite a match for the reason not only of the natives of Africa, but of some other of the bipeds who visit its inhospitable shores.

Towards evening, after a two hours' march, we made our first halt in Shol's village. Near the huts some giant Kigeliae, in full flower, displayed their purple tulip-like blossoms; they still stand as landmarks on the spot, although the old Shol has gone to her rest and the last fragments of her burnt huts have vanished. This Kigelia is common throughout Africa, and is distinguished for its remarkable fruit, two feet long, which hangs from the boughs like a string of sausages. The leaf is somewhat similar to our walnut, and in its *tout ensemble* the tree may bear comparison with a majestic oak.

Our course now lay in a tolerably straight S.S.W. direction across the western district of the extensive territory of the unsubdued Dinka. We rested occasionally in the deserted villages and amidst the empty cattle-pens belonging to the natives, who made their escape as we advanced. By their continual cattle-stealing, the Nubians have caused all the Dinka tribes to consider foreign interlopers as their bitter enemies: the intercourse, therefore, with the settlements in the Bongo and Dyoor countries, which are separated from the river by the Dinka district, can only be maintained at the expense of keeping an adequate number of armed men to protect the porters.

We now passed on through a country covered by farmsteads, repeatedly crossing fields of sorghum-stubble. The stalks, fifteen feet in length, which lay everywhere scattered on the ground, were a great impediment to our progress. The corn here cultivated is the largest form of the species; and the stem becomes so hard and woody that it is no more like our European straw than their

stubble-fields are like ours. At other places at this season the nature of the ground generally offered no hindrance, the clayey swamps being dry and hard as stone; the high grass of the steppe trodden down by men and cattle, the woods everywhere thin as in Southern Nubia, and consisting of isolated thickets or scattered trees of no great size.

For the purpose of geographical investigation a journey in the rainy season would be more advantageous, because it is only then that the actual limit and importance of the periodical currents are to be estimated. The term *periodical*, however, so frequently used in connection with the hydrographical conditions of Africa, perhaps hardly gives a correct impression, since the brooks and streams, which more or less are dried up after the rainy seasons are over, still exercise their influence on the conformation of the land, just as truly, if not so obviously, as our perpetual rivers, which are permanently limited to their proper channels. Many of the rivulets in this extensive level have no apparent bed; for in proportion as the water decreases, the bed by degrees resumes its aspect of being covered with grass; the turf rapidly grows afresh as the water recedes, and, independently of this, much of it is able to endure a flood of several months without rotting or dying away. This is a circumstance which quite easily explains the misconceptions to which various travellers in the dry season have been liable, who have gone along without recognising any river-beds at all. It is not in any way surprising that they have crossed the beds of even considerable streams without perceiving in them anything different to ordinary undulations of the ground, for there is nothing to arrest the attention but the same uniform growth of grass, the same dry stubble, the same scorched, trampled stalks.

Ten miles from the Meshera we reached the first watering-place in the centre of the Lao district, an open cultivated plain, several miles in extent, diversified with numerous farms and hamlets. Two fine sycamores seemed to beckon from afar and invite us to the spot.

The water had to be drawn from a depth of fifteen feet, from wells which contained nothing better than a stinking impure pulp. These wells are the residue of great pools formed in the rainy season, subsequently developing a wonderful abundance of animal life, although they produce nothing in any way adapted for culinary purposes. Large water-scorpions (*Belostoma*), beetles, and other creeping things that are ever at home in stinking pools, whirl about

in these muddy depths. Here it is, apparently, that the Dinka cows and sheep renew annually their progeny of intestinal worms (*Amphistoma*) and cercariae, of which the filthy beds are most prolific. Such was the drinking-water of Lao.

The natives had imagined that we should pass the night at the well; anxious, however, to take advantage of the coolness of the air, we resolved, by a forced night-march, to get quickly over the district, void of water, that lay before us. Marching on through the adjacent farms we noticed old and young hurrying off into the adjacent thickets, our arrival being unexpected. Many a steaming porridge-pot had been forsaken, and now fell into the hands of the greedy bearers, making them still more desirous of tarrying here for the night; but the orders were peremptory which had been given to our people to push forward without delay.

To the south the ground stretched uniformly for ten miles in sandy plains bare of grass, pleasantly broken at intervals by bushy shrubs and single trees. Onwards we went for five hours of the night over moonlit sands, the imagination giving a weird aspect to all around. The region strongly reminded me of the acacia-woods of Taka and Gedaref in South Nubia, which are seen in crossing the forests at the foot of the Abyssinian highlands. The character of the vegetation approximates to that of Kordofan. The commonest trees are the Seyal-acacia, hegelig, tamarind, Christ's thorn, capparis, and that remarkable thorn, the randia, the branches of which serve as models for the pointed lances which the inhabitants of Central Africa employ. One of the trees of Southern Kordofan finds here its southern limit: this is the *Albizzia sericeocephala*, a tree of moderate size, of which the finely-articulated, mimosa-like leaf consists of from 5000 to 6000 particles; the thick clusters of blossom gleamed out from the obscurity like snow, and the air was laden with their balmy fragrance. Thus we wandered on as through a cultivated garden, our path as smooth as if we were on gravelled walks. Reaching at length a considerable village, we encamped on the deserted site of a large cattle-park. A sudden storm of rain put the caravan into a commotion, and forced me to retire with my bedding into one of the wretched huts, which are not really dwellings, but are used for the nightly shelter of the cow-herds. Imbedded a foot deep in fine white ashes, and enveloped in a cloud of dust, I passed the remainder of the night, alternate coughing and sneezing making all sleep simply impossible.

On the following day we had to march for five hours without a draught of water, until a hospitable asylum was opened to us in the village of Take. We were now in the district of the Rek, a locality which formerly made a hitch in the traffic with the natives, before Petherick broke a way to the south through the Dyoor and Bongo, and opened a trade with the Niam-niam.

This Take was an old friend and ally of the Khartoomers, and had attired himself in honour of the occasion in a figured calico shirt, without regard to the prejudices of his countrymen, who despise all clothing as effeminate. Near this village in 1858 there existed a temporary establishment from which the brothers Poncet started on their elephant-hunts in the Dinka territory. They called the place Mirakok, but Mirakok and its elephants are now alike unknown in this land of the past, where (transient as a shower or a tide) all the lives and deeds of men have been long forgotten. It has been a land without chalk or stone, so that no permanent buildings could be constructed; it has consequently only reared a people which have been without chiefs, without traditions, without history. Detached fan-palms (*Borassus*), 100 feet high, in default of anything more lasting, mark the abode of Take, a shelter which was destined to have its sad associations for the travellers.

Ghattas's standard-bearer, a most courageous fellow and the best shot among all our Nubians, killed himself on a hunting excursion, which he had undertaken with me and my servant. I had contented myself with bagging a lot of remarkably plump wild pigeons, but he was resolved to get at some guinea-fowl; for this purpose he made his way into a thicket, where, as he was loading his piece, it accidentally went off, the charge entering his breast. This accident befell the one who was supposed to be incomparably the most skilful of our party in handling his weapons, and it may be imagined what was to be expected of the rest. Blundering accidents and wounds were of perpetual occurrence, so that I should only weary the reader by recounting them. The traveller who has to march with these so-called soldiers must be content to know that he could not anywhere be more thoroughly exposed to the danger of being killed by a chance shot; and I do not exaggerate when I affirm that my life was over and over again seriously threatened.

We left the unlucky spot, and proceeded two miles further to the village of Kudy, also an old friend of the Turks, as the Khartoomers are everywhere termed by the natives.

With Kudy I found a good opportunity of prosecuting my study of the Dinka, which I had already taken up in earnest during my stay in the Meshera. My relations with this strange pastoral people were, throughout the two years which I spent in the interior, but rarely discontinued. Dinka were my cow-herds, and Dinka provided me with all the requirements of my *cuisine* as long as I stayed in Ghattas's Seriba ; and even in the remotest limits of my wanderings I had dealings with them. I am only acquainted with the western branch of this people, whose territory altogether extends over an area of from 60,000 to 70,000 square miles, of which the length is close upon 400 miles; my knowledge, however, is accurate enough to enable me from my own observation to add much that is new to the descriptions which previous travellers have given of them.

Although individual tribes of the Dinka, with regard to height and bodily size, stand pre-eminent in the scale of the human race, the majority of this western branch of the nation rarely exceeds a middle height. Of twenty-six representatives that were measured, the average height was about 5 ft. 7 in. According to this, the average size of the Dinka is inferior to that of the Kaffirs, but it exceeds that of Englishmen.

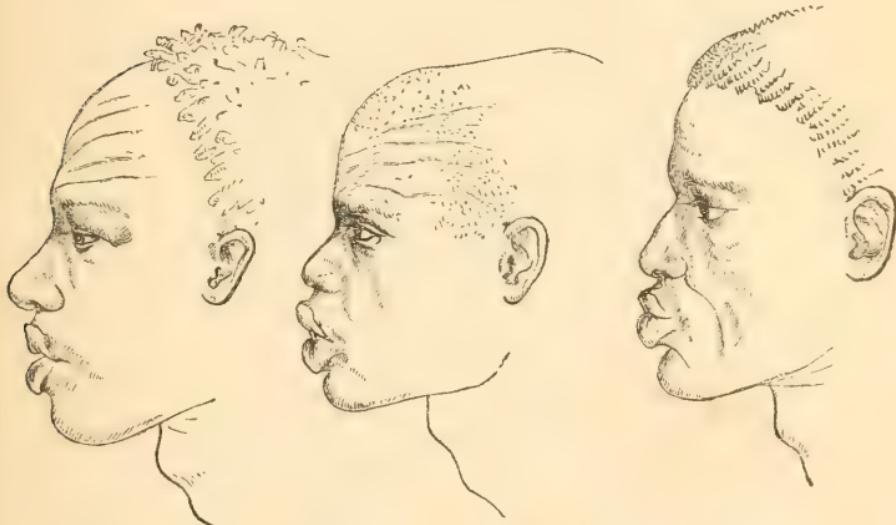
In their figure they are like the *swamp-men*, if such an expression may be allowed, presenting the same lankiness of limb which has been already noticed as characteristic of the Shilooks and Nueir. The outline of their sinewy frame is very decidedly marked in the horizontal, angular shoulders ; a long neck, slightly contracted at the base, corresponds with the head, which also gradually contracts towards the top and back, and which is generally somewhat flat and narrow. Ordinarily there is a strongly developed width of jaw. The Dinka must be reckoned amongst the darkest of races, but the deep black of their complexion gives place to a manifest tint of brown when the ashes are washed off with which they delight in covering themselves. When they have smeared themselves with oil, or taken a bath, their skin shines like dark bronze. The dull polish of chocolate may be taken as descriptive of the brighter hue ; this, however, is seldom seen even when the ashes are cleared away, because the removal of the dead scales of cuticle, which then takes place, is followed by a greyish tint which spreads over the skin.

The blue tinge which has been attributed to the negro's skin is entirely a matter of imagination ; it may be confidently asserted to

be solely the reflection of the sky. This result of reflection is especially to be observed when we chance to see one of these swarthy fellows standing at the aperture of his gloomy hut, which gets no light but what enters by the door.

Any apparent uniformity of physiognomy is all an illusion : it originates more in the inexperience of the eye than in any positive resemblance of feature. The three profiles of which illustrations are given show a marked variety in form between nose and nose.

The hair of the Dinka is nearly always very meagre ; it is generally closely shorn, except at the crown, where a tuft is left, which they ornament with ostrich feathers, in imitation of a heron.



PROFILES OF THE DINKA.

The helmet-shaped combs of the Shillooks are never seen, but tufts of woolly locks are much in fashion. Occasionally, but not often, the hair is plaited in fine braids, which run in parallel lines across the head. The women wear their hair either closely shaven or as short as possible.

A portrait given on page 51 represents what might be styled a Dinka dandy, distinguished for unusually long hair. By continual combing and stroking with hair-pins, the hair of the negro loses much of its close curliness. Such was the case here : the hair, six inches long, was trained up into points like tongues of flame, and these, standing stiffly up all round his head, gave the man a

fiendish look, which was still further increased by its being dyed a foxy red.

This tint is the result of continual washing with cow-urine; a similar effect can be produced by the application for a fortnight of a mixture of dung and ashes. The beard never attains sufficient growth to be worth their attention. Their razors are of the most primitive description, consisting simply of carefully ground lance-tips.

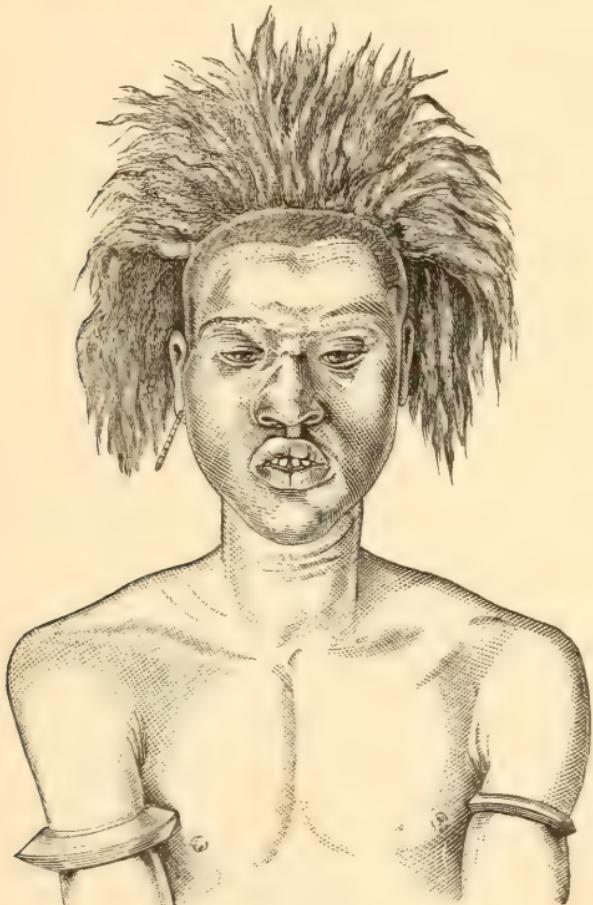
Both sexes break off the lower incisor teeth, a custom which they practise in common with the majority of the natives of the district of the Bahr-el-Ghazal. The object of this hideous mutilation is hard to determine; its effect appears in their inarticulate language, of which I suppose we could not imitate the sound, unless we submitted to the same ordeal. Some Africans file their incisor teeth to a point; others, like the Batoka of the Upper Zambesi, break out those of the upper jaw. The former of these practices appears comprehensible as increasing their capability for defence in single combat; and the latter is perhaps an imitation of their deified ruminants; but the reason why the Dinka should absolutely disfigure their lower jaw is quite beyond my comprehension. The African races have commonly been reported as distinguished for their fine rows of teeth, and it was accordingly a matter of surprise to me that bad teeth were so often conspicuous. The aged on this account are little short of disgusting, for the upper teeth, from the deficiency of opposition from the lower, project far from the mouth and stick out like a finger-joint. So marked is this peculiarity that some of the people have acquired from the Nubians the *soubriquet* of Aboo-Senoon, father jut-tooth.

Men and women alike pierce their ears in several places, and insert iron rings or little bars with iron tips. The women also bore the upper lip and fit in an iron pin running through a bead, a custom which is common among the Nueir. Tattooing is only practised by the men, and always consists of about ten radiating strokes, which traverse forehead and temples, having for their centre the glabella or base of the nose: it is a symbol by which the Dinka are recognised at once.

The observation of Barth,* that many heathen tribes consider clothing more necessary for men than for women is not applicable to the Dinka or any of the natives of the Upper Nile. According to Dinka notions of propriety, it is becoming for none but women to wear any covering; any attire, even of the most moderate

* Barth, vol. ii. p. 475.

description, is considered unworthy of the men. The Nubians, who are always called Turks, do not certainly belong to the most carefully clothed of the human race, yet the Dinka always term them *women*, a designation which in this sense is quite common. I always appeared in a complete suit of clothes, and my apparel accordingly gained for me the ironical title of the “Turkish lady.”



A DINKA DANDY.

On the other hand the women here are scrupulously clothed with two aprons of untanned skin, which reach before and behind from the hips to the ankles, and are trimmed round the edges with rows of beads, small iron rings, and little bells. At that time, white beads, as large as peas, with blue spots, called “Genetot-ahdah”

in the Khartoom market, and others an inch in diameter, called "Barrad" or hail-stones, which were principally worn by the men as necklaces, were all the rage, every other description being contemptuously rejected. In the course of a few years the fashions in beads change, and the store-houses in the Seribas of the Khartoomers get overstocked with supplies that are old-fashioned, and are consequently worthless.

The Dinka live in a veritable iron age—that is to say, they live in an age in which iron has still a high value; copper is not esteemed of corresponding importance. The wives of some of the wealthy are often laden with iron to such a degree that, without exaggeration, I may affirm that I have seen several carrying about with them close upon half a hundredweight of these savage ornaments. The heavy rings with which the women load their wrists and ankles, clank and resound like the fetters of slaves. Free from any other domination, it is remarkable of this people how, nevertheless, they are not free from the fetters of fashion. The favourite ornaments of the men are massive ivory rings, which they wear round the upper part of the arm; the rich adorn themselves from elbows to wrists with a whole series of rings, close together so as to touch. An adornment for the neck of less distinguished character is formed of strings of plaited leather; the bracelets are cut out of hippopotamus-hide; and the tails of cows and goats, in which every Dinka exquisite arrays himself, and with which he trims his weapons, are in common use.

Since the Dinka cannot do much with his miserable crop of hair, he turns his attention to caps and perukes in a way not unfrequent among Africans. Whilst I was with Kudy I often saw those strange specimens of head-gear which, in the shape of a Circassian chain-helmet, are formed exclusively of large white bugle-beads, which in Khartoom are called "muria." This decoration is especially common amongst the Nueir.* Another kind of head-dress is composed of ostrich feathers, and forms a light and effectual protection from the sun.

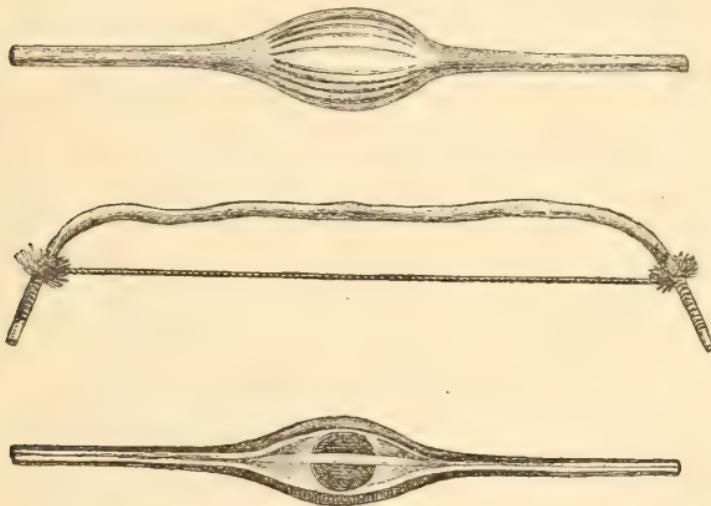
According to the custom, which seems to belong to all Africa, as a sign of grief the Dinka wear a cord round the neck; but amongst other nations we shall have occasion to notice several additional tokens to denote the loss of a member of a family.

Before the appearance of the Khartoomers, the Dyoor, who had

* In Wood's 'Natural History of Man,' p. 522, there is an accurate illustration of these ornaments.

settled within the limits of the Bongo and Dinka, in the vicinity of the soil which produced iron-ore, had performed all the smith's work which was required by the Dinka. At that time these Dyoor seem to have been brought by the Dinka to a similar state of vassalage as that in which they themselves now stand to the Nnbians. The Bongo, although their land produces iron, were far too hostile to their neighbours to furnish them with a supply of iron in the way of commerce. The Dinka themselves, being exclusively occupied with their cattle-breeding, have no taste and find little time for any arduous work of the smithy; hence it happens that although their iron ornaments are numerous, the workmanship of them all is of the most primitive character.

The most important weapon of the Dinka is the lance. Bows



DINKA INSTRUMENTS FOR PARRYING CLUB BLOWS.

and arrows are unknown: the instruments that some travellers have mistaken for bows are only weapons of defence for parrying the blows of clubs. But really their favourite weapons are clubs and sticks, which they cut out of the hard wood of the Hegelig (*Balanites*), or from the native ebony (*Diospyrus mespiliformis*). This mode of defence is ridiculed by other nations, and the Niam-niam, with whom the Dinka have become acquainted by accompanying the Khartoomers in their ivory expeditions, deride them as "A-Tagbondo," or stick-people.

Similar conditions of life in different regions, even among

dissimilar races, ever produce similar habits and tendencies. This is manifest in the numerous customs which the Dinka possess in common with the far-off Kaffirs. They have the same predilection for clubs and sticks, and use a shield of the same long oval form, cut out of buffalo-hide, and which, in order to insure a firmer hold, is crossed by a stick, secured by being passed through slips cut in the thick leather. But the instruments for parrying club-blows depicted in the accompanying illustration are quite peculiar to the Dinka. As far as I know, no previous traveller has drawn attention to these strange contrivances for defence. They are of two kinds. One consists of a neatly-carved piece of wood, rather more than a yard long, with a hollow in the centre for the protection of the hand: these are called "quayre." The other, which has been mistaken for a bow, is termed "dang," of which the substantial fibres seem peculiarly fitted for breaking the violence of any blow.

Everywhere, beyond a question, domestic cleanliness and care in the preparation of food are signs of a higher grade of external culture, and answer to a certain degree of intellectual superiority. Cleanliness and choice of food not only at once disclose a real distinction between nation and nation, but constitute a measure of the degrees of civilisation in individual provinces and districts. Now both these qualities, I aver, are found among the Dinka to a greater extent than elsewhere in Africa.

In culinary matters they are certainly superior to the Nubians, and I should have little hesitation in pronouncing them even more expert than either the Arabs or the Egyptians. Their farinaceous and milk foods are in no way inferior to the most refined products of an European *cuisine*. The reaping, threshing, and sifting of the sorghum and penicillaria grain (the durra and dokhn of the Arabs) are brought to perfection by their female slaves, who subsequently granulate the meal like sago. In seasons of scarcity their talent for cooking has led them to the discovery of various novelties in the way of food. Like the tribes of Baghirmi, the Musgoor, and Adamawa, they make a preparation, very much in the Indian fashion, from the farinaceous germs of the Borassus palm. They extract all its native bitterness by soaking and washing, and succeed in producing a fine meal, which is purely white. They treat the tubers of the *Nymphaea* in very much the same way, and render them quite edible.

With the choice cookery corresponds also the decorum of their behaviour at meals. They certainly, in this point, more resemble

ourselves than any Orientals. They do not all dip their hands at once into the same dish, like the Turks and Arabs, but assist themselves singly. A large dish of cooked farina is placed upon the ground, around which the guests recline, each with his gourd-shell of milk, or, better still, of butter, at his side; the first pours his milk only on the part which he touches, and when he has taken enough, he passes the dish to the next, and thus they eat in succession, but quite separately.

In the interior of their dwellings, the Dinka are as clean as the Shillooks, sharing the same partiality for ashes as a bed. It ought to be mentioned that the traveller in this part of Africa is rarely troubled with vermin or fleas, which everywhere else, like desolation and slavery, seem invariably to have followed the track of Islam. In the Western Soudan the torments of the night are represented as insupportable, so that the huts of the Hottentots are not worse. Among the Dinka it is entirely different. The only disquietude to a stranger in their houses arises from the snakes, which rustle in the straw roofs, and disturb his rest. Snakes are the only creatures to whom either Dinka or Shillooks pay any sort of reverence. The Dinka call them their "brethren," and look upon their slaughter as a crime. I was informed by witnesses which I had no cause to distrust, that the separate snakes are individually known to the householder, who calls them by name, and treats them as domestic animals. Those which inhabit the Dinka huts are, as far as I could learn, not venomous.

The Dinka are far more particular than any other tribe in the choice of their animal food. There are many creeping things, which are not rejected by the Bongo and Niam-niam, which they loathe with the utmost disgust. Crocodiles, iguanas, frogs, crabs, and mice they never touch; but, connoisseurs of what is good, they use turtles for making soup. It is scarcely necessary to say that the accounts of the cannibalism of the Niam-niam excite as much horror amongst them as amongst ourselves. Nothing, likewise, is more repulsive to them than dog's flesh, which is enjoyed by the Mittoo—a fact which justifies us in the supposition that that tribe is addicted to cannibalism. Dinka, as well as Bongo, have declared to me in the most decided manner, that they would rather die of hunger than eat the flesh of a dog. But a delicious morsel to the Dinka is the wild cat of the steppes, which is often found in this part of Africa, and is the original of our domestic cat, to which it bears no slight resemblance. But more delicious than all they

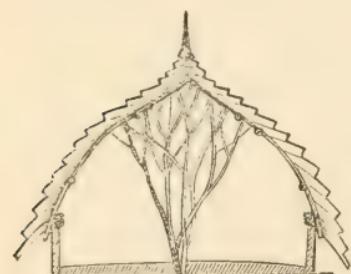
esteem the hare; and in order to illustrate their appreciation of it, a Dinka, to whom I was talking, naïvely asked me whether I knew what a Dinka did when he managed to kill a hare on the steppe by a lucky blow of his club? "He makes a fire," he said, "and roasts his game and eats it quietly, without saying anything about it at home."

Even before they had any intercourse with Mohammedan countries, a love of tobacco-smoking had been one of the traits of the Dinka, who use the same huge pipe-bowls as we have already observed among the Shillooks. A strong stem opens into a small calabash, which serves as a mouth-piece, and is filled with fine bast, to intercept the narcotic oils. By taking off the top of the pipe, the bast can be removed, and, impregnated as it is with tobacco-oil, it is subsequently chewed. The smoking-apparatus is so ponderous that every one is obliged to sit down while he smokes.

The Dinka dwellings consist of small groups of huts clustered in farmsteads over the cultivated plains. Villages in a proper sense there are none; but the cattle of separate districts are united in a large park, which the Khartoomers call a "murah."* The drawing given in the frontispiece represents a Dinka farm surrounded by sorghum fields. Of the three huts, the one in the centre, with a double porchway, is set apart for the head of the family; that on the left is for the women; whilst the largest and most imposing hut on the right is a hospital for sick cows, which require to be separated from the throngs in the murah that they may receive proper attention. Under an awning in the centre of the huts is the fireplace for the cooking, sheltered from the wind by a semicircular screen of clay.

The goats are kept within a small thorn fence, so that the daily supply of milk may be always at hand.

As a rule the huts of the Dinka are spacious, and more durable than those of other tribes who build their dwellings in the same conical form. They are not unfrequently forty feet in diameter; their foundations are composed of a mixture of clay and chopped straw, and the supports of the roof are made of branches of acacia and other hard woods. Not content with supporting these



SECTIONAL VIEW, SHOWING CONSTRUCTION OF DINKA HUT.

acacia and other hard woods.

* The derivation of "murah" would seem to be from "rah," rest, "merah," a resting-place for cows, or "menah," a resting-place for camels.

with a single central prop, the Dinka erect a trunk with its spreading branches in the middle. The roof is contrived out of layers of cut straw. These buildings endure for eight or ten years, and decay at length mainly through being worm-eaten. The huts of the Bongo, on the contrary, are built up much more rapidly, but rarely last as much as three years.

The principal plants that are here cultivated are sorghum and penicillaria; but we shall have a more ample opportunity of entering into the details of these crops when we speak of the Dyoor, who cultivate nearly the same products of the soil.

The domestic animals are oxen, sheep, goats, and dogs ; poultry



DINKA BULL.

was never to be seen, and the cause of its absence is inexplicable. The cattle belong to the Zebu race, and are smaller than those of the Baggara and Hassanieh ; they have a hump, their horns are slender, the fore part of the body prevailing so in size as to resemble an antelope. As to colour, the majority are nearly white. The Dinka have separate expressions to denote every shade of colour of the breed, and indeed, their vocabulary for all that relates to cattle and cattle-breeding is more copious than that of any European tongue.

The sheep are of a peculiar breed, which is unique amongst the

Dinka, Nueir, and Shillooks; farther on in the interior of the equatorial districts it is not known. Its chief characteristic consists of a shaggy appendage to the shoulders, breast, and neck, like a mane, whilst on the rest of the body, and on the meagre tail, the hair is quite short. Generally white, they are occasionally brown or spotted, and in some rare cases I have seen them of quite a reddish hue.* Like the pastoral people of Southern Africa, the Dinka have acquired the art of splitting the horns in their early growth, so as to increase their number at will.



DINKA SHEEP.

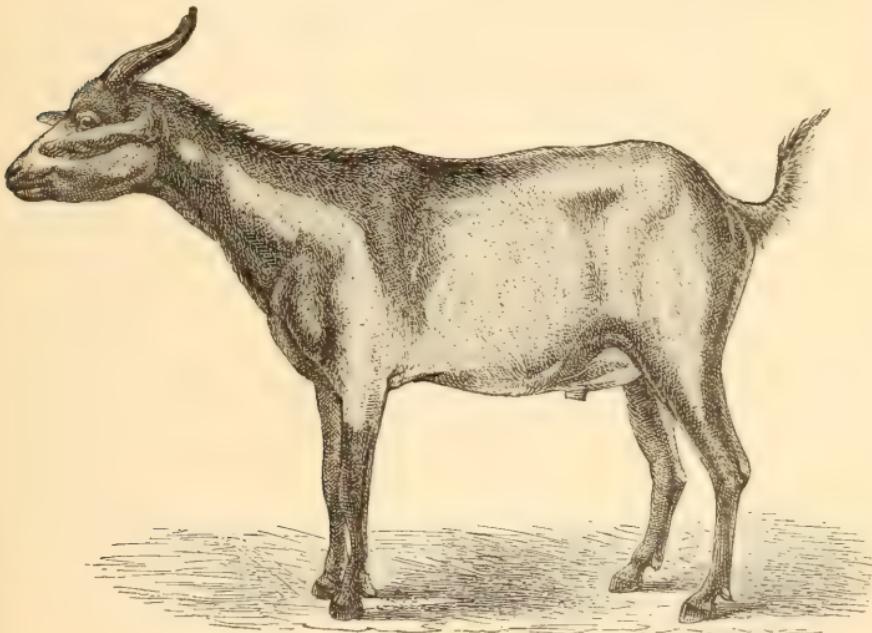
The continual dampness of the pasture, especially throughout the rainy season, favours the development of revolting intestinal vermes, and the rain-pools in the dry months become most prolific as breeding-places for Cercariæ. I have frequently seen sheep suffering under disease, their ailment arising from their liver and gall-ducts being choked up by these worms. The distoma, which is a denizen of every zone and extends even to Greenland, is found here an inch long.

* The illustration gives a likeness of a Dinka sheep, which must not, however, be confounded with the maned sheep of Morocco.

The race of goats bred by the Dinka does not differ materially from the Ethiopian form ; its only distinction is being somewhat larger ; in appearance it is always meagre, and its prevailing colour is that of a young grey colt.

The dogs closely resemble the common village curs of Nubia, a cross between the greyhound of the Nubian steppes and the pariah of the streets of Cairo. It is not unusual for their colour to be brown, but by far the larger number are a tawny yellow.

Every idea and thought of the Dinka is how to acquire and maintain cattle : a kind of reverence would seem to be paid to



DINKA GOAT.

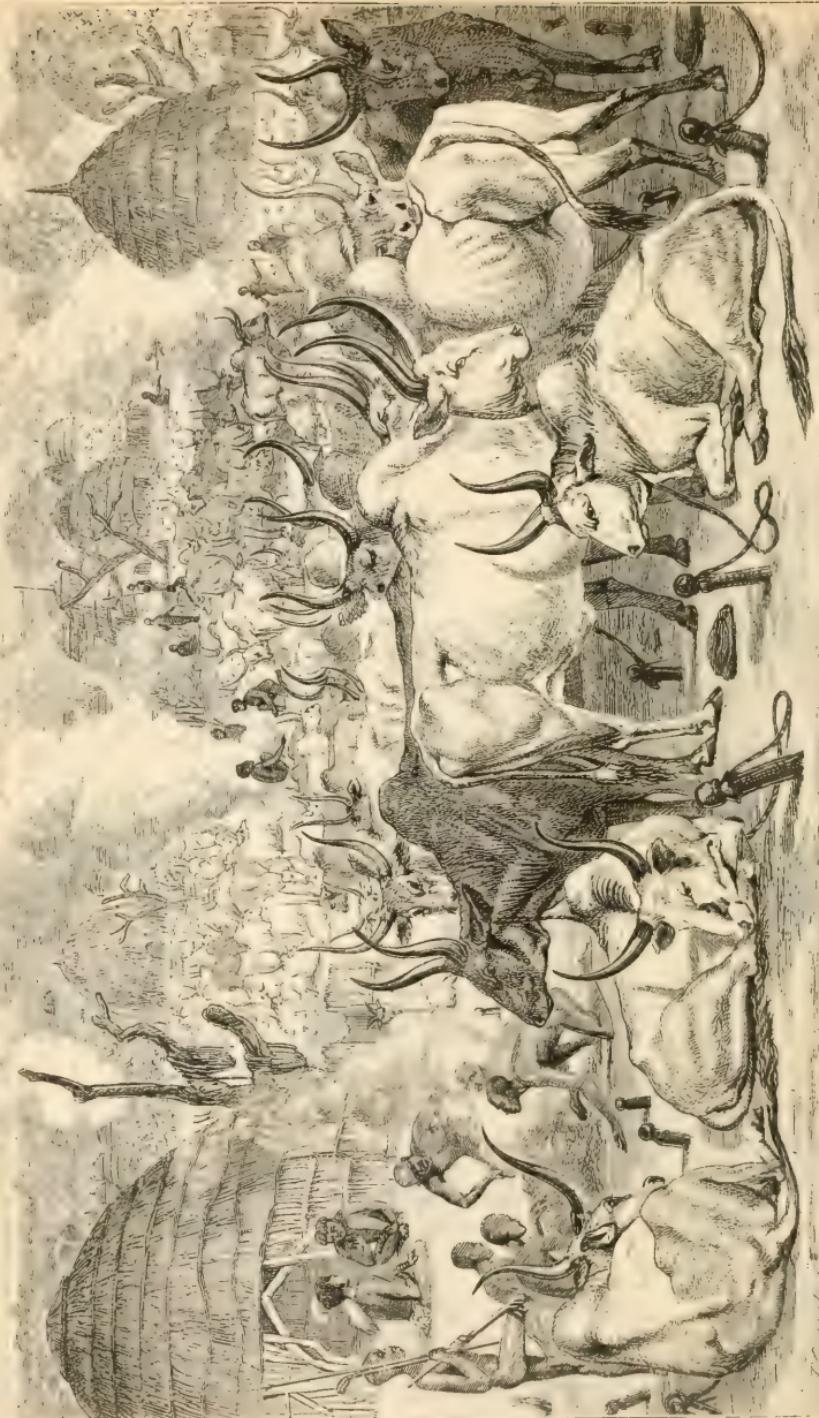
them ; even their offal is considered of high importance ; the dung, which is burnt to ashes for sleeping in and for smearing their persons, and the urine, which is used for washing and as a substitute for salt, are their daily requisites. It must be owned that it is hard to reconcile this latter usage with our ideas of cleanliness. A cow is never slaughtered, but when sick it is segregated from the rest, and carefully tended in the large huts built for the purpose. Only those that die naturally or by an accident are used as food. All this, which exists amongst most of the pastoral tribes of Africa,

may perchance appear to be a lingering remnant of an exploded cattle-worship; but I may draw attention to the fact that the Dinka are by no means disinclined to partake of any feast of their flesh, provided that the slaughtered animal was not their own property. It is thus more the delight of actual possession, than any superstitious estimate, that makes the cow to them an object of reverence. Indescribable is the grief when either death or rapine has robbed a Dinka of his cattle. He is prepared to redeem their loss by the heaviest sacrifices, for they are dearer to him than wife or child. A dead cow is not, however, wantonly buried; the negro is not sentimental enough for that; such an occurrence is soon bruited abroad, and the neighbours institute a carousal, which is quite an epoch in their monotonous life. The bereaved owner himself is, however, too much afflicted at the loss to be able to touch a morsel of the carcass of his departed beast. Not unfrequently in their sorrow the Dinka remain for days silent and abstracted, as though their trouble were too heavy for them to bear.

The only domestic animal which is slaughtered amongst them is the goat, which scarcely represents the thirtieth part of the value of a cow. A heifer has three times the value, and a cow that has calved double the value of a steer. In common with the other tribes of this part of Africa they use rather a singular method of butchering their cattle, proceeding, when occasion requires, by the way of making a violent stab in the nape of the neck by means of a spear. This causes immediate death, and is a method which gives but little trouble.

It is not difficult to understand how people like the Dinka should make their whole delight to centre in having thriving cattle-farms, but to us their profitless practice of emasculation must remain incomprehensible. The herdsmen cut their bulls and bucks with the mere intention of feasting their eyes upon a development of fat which is always obnoxious to the stomach. Almost the third part of their bulls are submitted to the knife, and the same proportion of their goats and rams, and even their dogs, with the design of rendering them more agile, more enduring, and fitter for the chase; this also being the reason why their ears and tails are clipped.

The failure of the beard amongst the male cattle so treated is a topic that suggests some observations. In spite of the anxiety and care which the Dinka bestow upon their herds, there is no mistake about the degeneration of the race. The way in which I chiefly account for this is that there is not enough crossing of breeds—

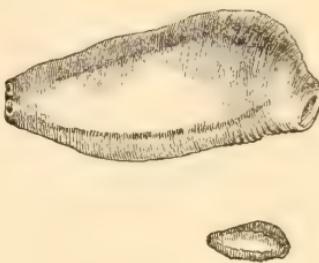


in fact, that there is almost a total exclusion of any strange stock. I should say that hardly one in a hundred of the beasts is capable of either bearing a burden or going a journey, a purpose, however, to which none of the negroes of the Upper Nile ever seem to put them.

Again, the cattle of the Dinka are not provided with salt in any form whatever, which may in a measure account for the degeneration; it may explain the prevalence, all but universal, of the worms known as "kyatt," which cover the first stomach or paunch, of nearly all their cattle. These worms in Europe are included in the genus of the *Amphistoma*; they are like an oval bag, something under half an inch long, and generally as red as port wine.

The accompanying illustration is designed to exhibit something of the daily routine of the Dinka. It represents one of those murabs or cattle-parks, of which I have seen hundreds. It depicts the scene at about five o'clock in the afternoon. In the foreground there are specimens of the cattle of the country. The men in charge are busied in collecting up into heaps the dung that has been exposed during the day and dried in the sun. Clouds of reeking vapour fill the murah throughout the night and drive away the pestiferous insects. The herds have just been driven to their quarters, and each animal is fastened by a leather collar to its own wooden peg. Towards the left, on a pile of ashes, sit the owners of this section of the murah. The ashes which are produced in the course of a year raise the level of the entire estate. Semicircular huts erected on the hillocks afford the owners temporary accommodation when they quit their homes some miles away and come to feast their eyes upon the goodly spectacle of their wealth.

The milking is performed in the morning hours. Truly miserable is the yield, and the most prolific of the cows does not give as much as one of our ordinary goats. This deficiency of milk is another witness of the deterioration of the breed, and no one would believe the quantity of milk it takes to produce a single pound of butter. The dew hardly goes off before ten o'clock, and it is not until that hour that the herds are driven out. It is quite rare for



"KYATT" WORM.

a murah to hold less than 2000 beasts, and some are capable of holding many more. Upon an average I should reckon that for every head of the population there would be found at least three of cattle ; of course, there is no lack of the poor and the destitute, and these obviously are the slaves and dependents of the rich. So large are the numbers of the Dinka, and so extensive their territory, that it must be expected that they will long perpetuate their existence amongst the promiscuous inhabitants of Africa. So far as regards their race, their line of life, and their customs, they have all the material of national unity ; but where they fail is that their tribes not only make war upon each other, but submit to be enlisted as the instruments of treachery by intruders from outside. That the Khartoomers have not been able hitherto to make good their footing upon Dinka soil is due more to a general resistance to external control than to any internal condition of concord. Every attempt to bring this people into subjection has been quite a failure, and not at all the easy matter it proved with the Bongo and some other communities. The southern people are emphatically agricultural, for the most part devoted to peaceful pursuits, and so they are wanting in that kind of organisation which could unite them into a formidable body for mutual resistance. The marked peculiarity of the Dinka, as well as their adherence to all their wonted habits, renders them thoroughly useless as far as regards the slave traffic. Although the people of Khartoom for fifteen years or more have traversed their country, they have never been able in any way to make use of the material which might be afforded by a regulated commercial intercourse.

I must be allowed to pass lightly over, as an equivocal topic, the religion of a people whose dialect I was unable adequately to master. It seems to me like a desert of mirages, or as a play-ground, where the children of fancy enjoy their sport. The creed of the Dinka apparently centres itself upon the institution to which they give the name of the Cogyoor, and which embraces a society of necromancers and jugglers by profession. Other travellers have recorded a variety of marvels about their sleight of hand, their ventriloquism, their conjurations, and their familiarity with ghosts.

Before we leave the Dinka we must not omit to recall their virtues, in order that we may fairly estimate the charge that has been laid against them of cruelty in war. It is affirmed that they are pitiless and unrelenting in fight, that they are never known to

give quarter, and revel in wild dances around the bodies of their slaughtered foes: a whole village will take their share in the orgies which one of the community will start, whenever, either by lance or club, he has prostrated an antagonist. But, for my part, I am ready to certify that there are Dinka whose tenderness and compassion are beyond a question. One of the Bongo related to me, as a matter of his own experience, that he had been severely wounded upon an expedition which the Nubians had set on foot against the Dinka to steal their cattle: he had laid himself down just outside a Dinka's house, and the owner had not simply protected him against all his pursuers, who considered themselves amply justified in proceeding to every extreme of vengeance, but kept him till he had regained his health: not content with that, he provided him with an escort back, and did not abandon him till he was safe and sound again amongst his own people.

Notwithstanding, then, that certain instances may be alleged which seem to demonstrate that the character of the Dinka is unfeeling, these cases never refer to such as are bound by the ties of kindred. Parents do not desert their children, nor are brothers faithless to brothers, but are ever prompt to render whatever aid is possible. The accusation is quite unjustifiable that family affection, in our sense, is at a low ebb among them. In the spring of 1871, whilst I was staying in the Seriba of Kurshook Ali on the Dyoor, I witnessed a circumstance which I may relate as a singular corroboration of my opinion. A Dinka man, one of the bearers who had carried my stores from the Meshera, was about to return to his own home in the territory of Ghattas, but he had been attacked by the guinea-worm, and his feet were so swollen that it was with the utmost difficulty that he could proceed a step, and he was obliged to remain behind alone. Everything was excessively scarce and dear, and he was glad to subsist on a few handfuls of durra and on what scraps we gave him from our meals; in this way he dragged on, and, with a little patience, would have been all right: however, he was not suffered to wait long; his father appeared to fetch him. This old man had brought neither cart nor donkey, but he set out and carried away the great strapping fellow, who was six feet high, for a distance of fifteen or sixteen leagues, on his own shoulders. This incident was regarded by the other natives as a mere matter of course.

At the village of Kudy, our caravan had accomplished about half its journey, which was altogether a little over 90 miles. It was

on the afternoon of the 28th of March that we started afresh towards Ghattas's Seriba. On account of their late liberal diet, our bearers did not advance with their usual alacrity. We proceeded for three hours, and at a well called Pamog, 20 feet deep, we halted for the night.

On the next day our route lay through forests, and we entered upon the territory of the Al-Waj. The inhabitants regarded us as enemies, and, seizing their bows and arrows, left their dwellings and, like frightened game, flocked to the adjacent woods. According to our Dinka interpreters, the Al-Waj do not belong to the Dinka race, but form an enclave, or isolated community, of unknown origin.

The Al-Waj district is an almost unbroken forest in the midst of open flats. Throughout the rainy season it is hardly better than one vast puddle. The vestiges of elephants are frequent at all times; and both right and left were giraffes trotting over the rugged grass and wagging their tall heads.

After leaving the village of the Al-Waj we proceeded for three leagues through the forest, and found ourselves again on the extensive steppe. At noon on the following day we reached the district of the Dyuihr, a clay flat, devoid of trees. The Khartoomers cannot pronounce the native names correctly, and call this people the Dyerawee. The large villages were now deserted, the population, on account of the scarcity of water and pasturage, having gone to the river-banks. For two nights we sacrificed our rest and hurried onwards by forced marches. It was just before sunrise that we reached the first rocky irregularity in the soil, a general ascent in the ground being quite perceptible. Bush-forests now took the place of the steppes, which we had long found to be but scantily relieved by thickets. A luxuriant foliage revealed itself, presenting one of those striking *limits of vegetation* which are so rarely to be met with in Africa. From this interesting locality I proceeded for another three leagues, thus accomplishing the preliminary object of my journey. I was in the chief Seriba of Ghattas, which for some months to come I proposed to make my head-quarters.

Of the character of the buildings, the arrangements and mode of life in the settlements of the Khartoomers, I had been able from hearsay to form a very imperfect idea. My curiosity was therefore very considerably awakened as our caravan approached the Seriba. Half a league from the place we came to a halt in order to give the customary warning by firing a salute, and without farther delay started afresh. Surrounded by my attendants, I went at the head

of the *cortége*. All round the settlement for some distance the land was entirely cultivated, and the view as we proceeded was only broken by large trees dotted here and there, which in their summer verdure stood out in charming contrast to the cheerless grey of the desert steppe. Soon, rising from the plain, appeared the tops of the conical huts embracing nearly the whole horizon. I looked in vain for the fortifications, with which I had imagined that a Khartoomer's Seriba must be provided. In fact, there was hardly anything to distinguish it from any of the villages of the Dinka which are scattered over the cultivated flats.

A motley crowd, relieved by many a bright bit of colour, presented itself and formed a lively spectacle such as was scarcely to be expected to break in upon the monotony of an African landscape. We were received with a rattling salute from a number of rusty rifles, and there was every disposition to do the honours of our arrival in a becoming manner. Elegantly attired in an Oriental costume, Idrees, Ghattas's agent, approached with the gestures of welcome, and proceeded to conduct me to the hut which for some weeks had been prepared for my reception. For the first time I now observed that the area in the centre of the huts was surrounded by a lofty square palisade; through the narrow gateway of this, with lowered banners and amidst the sound of gongs and kettle-drums, our cavalcade passed on.

With this chief Seriba were associated five smaller settlements in the adjoining Bongo country, and four more in remoter spots. It lay on the border-lines of the three races, the Dinka, the Dyoor, and the Bongo. From an insignificant beginning it had, in the course of thirteen years, increased to its present importance. A number of Gellahba, Nubian, and other merchants, had taken up their abode on large estates within its precincts; and here it was that they completed their purchases of slaves in order to carry them on to Darfoor and Kordofan. The garrison was composed almost exclusively of natives of Dongola; there were, however, a few Sheigeah and men of Kordofan among them, and these, including the numerous *employés* of Ghattas, made the resident armed force not much under 250 men. To these should be added some hundreds of slaves reserved for the market, or divided as part of their pay amongst the soldiers, and several hundreds more, male and female, who were in actual service. The aggregate population therefore of this establishment almost equalled that of a small town, and amounted to at least 1000 souls.

Altogether the Upper Nile traffic was carried on at great pecuniary risk, and its prospects were far from favourable. As I saw it, it was dependent for any amount of success upon the plunder which was made alike upon cattle and upon men, and upon the levies of corn and provisions which were exacted from the natives. Without the aid of the Nubian soldiers the expeditions could not be secure. These soldiers only come to escape the rigorousness of the Egyptian Government in their own land ; they participate in the profits, and yet without them the monopoly could not be maintained. The Government could avail nothing to protect a legal business ; neither could any European enterprise hope, for many successive years, to be able to work a profitable trade.

For two miles round the Seriba the land was partitioned into fields. Enclosed by dense bush-forests, of which the trees rarely exceeded forty feet in height, this wide expanse was industriously tilled by the natives who had settled in the vicinity, and furnished the greater part of the annual supply of sorghum necessary for the garrison.

The Seriba is not elevated more than 100 feet above the mean level of the Gazelle ; in the rainy season the place is surrounded by pools, and at intervals large tracts of the lower steppes, for miles together, are little better than swamps ; but in spite of everything, the climate is far more salubrious and enjoyable than in many districts of the Egyptian Soudan.

Fevers indeed are common, though they rarely carry off newcomers, but hitherto few white men have come to make experience of the climate in this portion of Africa.

Upon my arrival two neatly-built huts of moderate size, within the palisade, were prepared for me, but these were not nearly sufficient to accommodate me with all my baggage. My servants were provided with quarters in some other huts. The actual Seriba, about 200 paces square, was so crammed with huts, that not a spot could be discovered where it was possible to erect a more spacious esidence. Outside the enclosure, where the buildings were more scattered over the fields, I was not permitted to lodge. I was told how it had happened, and was likely to happen again, that the natives skulked about at night and murdered people in their sleep.

The huts are built of bamboo and straw ; the conical roof rests on a kind of basket-work of bamboo, which is daubed inside with clay, in a way that is imitated from the almost petrified erections of the white ants. The pagan negroes lavish far more care upon

their huts than the Mohammedan inhabitants of the Soudan, who, although the bamboo grows so abundantly among them, do not succeed in giving their "tokkuls" nearly so much symmetry. Here they possess the art of erecting roofs which are perfectly watertight, and which are so light that they do not require heavy posts to hold them together on the walls. The covering for the roof is formed, in the first place upon the ground, with handfuls of stalks laid side by side and knotted together. These are afterwards plaited into long strips, which are then laid one above the other, like the flounces of a lady's dress—a comparison which is further the more appropriate, because the structure of the frame-work is exactly like a hooped petticoat.

My excursions about the neighbourhood soon began, and these, with the arrangement of my daily collections, occupied the greater part of my time. In unfailing good health, I passed the first few weeks in a transport of enjoyment, literally enraptured by the unrivalled loveliness of nature. The early rains had commenced, and were clothing all the park-like scenery, meadows, trees, and shrubs, with the verdure of spring. Emulating the tulips and hyacinths of our own gardens, sprang up everywhere splendid bulbous plants; whilst amongst the fresh foliage gleamed blossoms of the gayest hue.

At the end of a fortnight I made a trip to the south-east, the first of a series of excursions to Ghattas's different Seribas, which lay four or five leagues apart. On this tour I learnt something of the river Tondy, on which is established the Seriba known as Addai. The river was now at its lowest level, and was flowing north-east in a tolerably rapid current, between precipitous banks fifteen feet in height. In depth it varied from four to seven feet, and it was about thirty feet in breadth; in the rainy season, however, for three miles, the adjacent steppes are covered with its flood, which are always very prolific in fish. Before the Tondy joins the Gazelle, as it does in the district of the Nueir, it spreads irregularly over the low-lying country and leaves its shores quite undefined. In this way it forms a number of swamps, all but inaccessible, to which the Dinka, whenever they are threatened by plundering excursions from the Seribas, lose no time in driving their herds.

Although the Tondy is nearly as long as the Dyoor, it is very inferior in its volume of water. Like several of the less important rivers of this region, it flows for a long distance without any appreciable increase either in size or speed. These streams intersect the

country and cut it up into narrow sections, which are rarely designated on the maps.

The second of the Seribas which I visited was called Geer, and was just four leagues to the south of the chief settlement. It was surrounded by bamboo-jungles, and was situated in a prolific corn-valley, watered by a tributary of the Tondy. It contained about 800 huts, occupied by Bongo, who had settled there.

The road to Geer, nearly all the way, was over a firm, rocky soil, through bush forests, swarming with wart-hogs (*Phacocharus*). About three-quarters of a league on the way, stood a dense mass of lofty trees, not unlike an alder grove. It was traversed by rain-courses, and surrounded low swampy steppes, which in the rainy season are entirely under water. The wood consisted mainly of tall uncariæ and eugeniæ, 80 feet in height, of which the long, straight stems were crowned by spreading foliage: it was the first bit of the primeval forests which fill up the valleys through which flow the rivers of the Niam-niam. I paid many visits to this interesting spot; by the people in the Seriba it was termed Genana, the Arabic word for a garden.

By the end of April the vegetation was so far developed that I might fairly reckon on a larger botanical collection on a longer excursion. Accordingly, accompanied by my servants and a few bearers, I set out towards the west, designing to visit the Seribas belonging to Kurshook Ali and Agahd, and to explore the river Dyoor. I was everywhere received most hospitably, and thus had every encouragement to make similar trips amongst the various Seribas.

My people had glorious times in the Seribas. There was mutton without stint; and whole animals were slaughtered even for my dogs: to my hungry Khartoomers it was literally a land flowing with milk and honey.

This excursion lasted from the 27th of April to the 13th of May. After leaving the chief Seriba we proceeded for about three leagues to the north-west, and arrived, first, at the Seriba owned by Abderahman Aboo Guroon. In 1860 this spot was visited by the Marquis Antinori, who, in spite of many privations, remained there throughout an entire rainy season. At that time a French hunter, Alexandre Vayssi  re, under the protection of the Dyoor chief, Alwal, with whose sons I made acquaintance, had founded a small settlement. Aboo Guroon was formerly a servant of Petherick's, and had faithfully accompanied that praiseworthy traveller in his earliest

endeavours to penetrate the Bongo country. He had obtained his name, Aboo Guroon (father of horned-cattle), from his noted courage and love of enterprise, and he was renowned amongst the traders as the first traveller to the Niam-niam.

Close to his Seriba we had to cross the Molmull stream, which was for a long period represented on maps as an arm of the Dyoor, but I have proved that it is a collateral stream, which rises in southern Bongoland. In the rainy season it is 70 feet wide, and is only passable by swimming, but it was now nothing more than a series of pools, the intervals of which were marked by patches of gneiss.

Ten leagues further west flows the Dyoor. Our route in that direction was in every way tiresome. For four leagues and a half we traversed a barren steppe, without being able to obtain so much as a draught of water, and the rough clods of clay were a continual impediment. We halted for the night in a small Seriba of Agahd's, called Dyoor-Awet. It lies on the summit of the watershed between the Molmull and the Dyoor, and from the hill towards the west an extensive view of the latter river is obtained. At length we arrived at some little enclosures of Deemo, a Dyoor chief. The huts were built on the slope of a small eminence of hornblende, a formation that I never noticed elsewhere to the south of the Gazelle; it extended as far as the right bank of the Dyoor, which, now at its lowest condition, was flowing sluggishly towards the north through steppes about a league in width.

The sandy river-bed was bounded by clay banks, from 20 to 25 feet in height, the entire thickness of the alluvium of the valley. The breadth of the bed at this spot was rather more than 400 feet, but at this season the running water was reduced to 80 feet wide and 4 feet deep. I was told that a few days previously the water had been up to a man's shoulder, and that the stream would not now fall any lower. Ten days later, on my return, I crossed the river about three-quarters of a league to the south, and although I found that the whole bed was covered, yet its depth was not above three or four feet.

Among the Bongo and Dyoor alike, the river goes by the name of "Gueddy," whilst the Niam-niam, in whose territory lies the whole of its upper course, call it "Sway." I found its source (the first of the more important tributaries of the system of the White Nile that has been positively ascertained) in Mount Baginze, in the eastern portion of the Niam-niam country, in lat. $5^{\circ} 35' N.$, and in almost

the same longitude as that in which it joins the Gazelle ; its main course, omitting the smaller windings, extends over 350 miles.

As we were wading across its clear waters, my servant, Mohammed Ameen, was suddenly attacked by a sentimental fit of homesickness. He was distinguished by the nickname of "the swimmer," and as a former Reis he was always more interested than anybody else in river-systems and hydrographical questions. Stopping midway in the channel, as though lost in contemplation, he suddenly apostrophised the waters : "Yonder lies Khartoom ; yonder flows the Nile. Pass on, O stream, pass on in peace ! and bear my greeting to the dear old Bahr-el-Nil !" An Egyptian would have been too stolid to be moved like this son of Nubia.

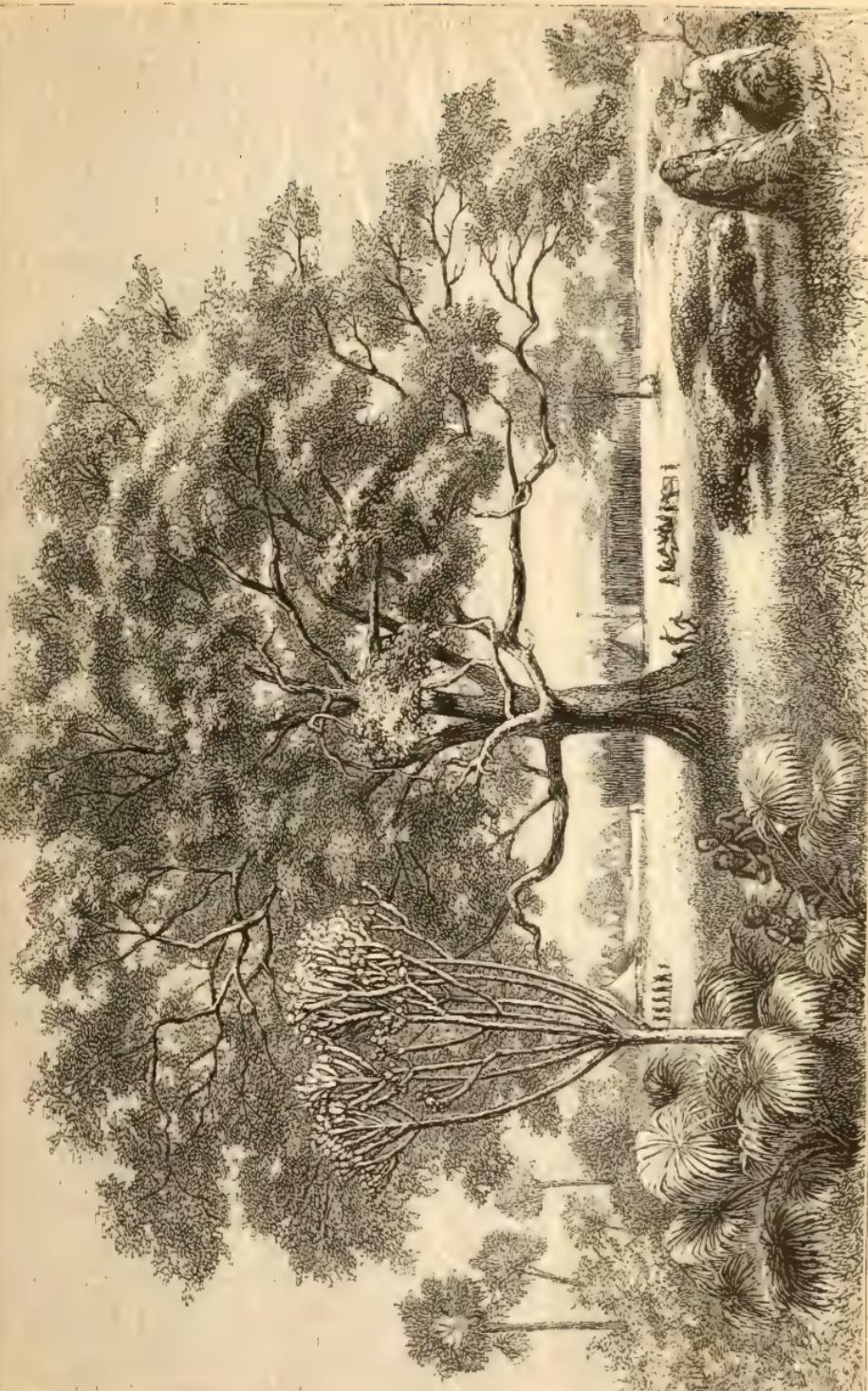
The bush-ranges on the opposite shore were enlivened by numerous herds of hartebeests and leucotis antelopes. I hurried on in advance of my caravan, hoping to enjoy a good chase, but my attempt only resulted in a circuitous ramble and in extreme fatigue. It was not until the middle of the day that I rejoined my people in a little village of the Dyoor.

Rather more than a league from the Dyoor, in an irregular valley sloping towards the river and surrounded by wooded hills, was situated, but newly built, the chief settlement of Kurshook Ali. Khalil, the aged governor, received me most kindly. After the entire destruction of the former establishment by fire, he had erected in its place quite a model Seriba. This is depicted in the background of the accompanying drawing, in the foreground of which is a majestic khaya-tree. Several of the most important types of vegetation are also represented : on the left are the large candelabra-euphorbia and borassus palms, and on the right appear the little gardenia-trees, of which the fruit resembles the wild pear or the crab-apple ; by the side of these are two deserted white-ant hills.

Some of my most pleasant reminiscences of African life are connected with this spot. Here it was that, two years later, after experiencing the calamity of a fire, I was hospitably received, and passed several months in hunting over the well-stocked environs.

Two leagues to the west brought us to the Wow, a river of inferior magnitude, but which was very charming. Meandering between rocky slopes, overhung with a rich and luxuriant foliage, and shadowed at intervals by stately trees, after a few miles it joins the Dyoor. Its bed, at its full measure, is 150 feet wide ; but when I saw it, on the 1st of May, it exhibited merely two little rills trickling merrily over a rough sandy bottom. In proportion to its

THE CHIEF SETTLEMENT OF KUSHOOK ALI. A MAJESTIC KHAYA-TREE.



size it seemed to retain in the dry season less water than the Dyoor. It rises in the heart of the Niam-niam country, where it is called the Nomatilla ; as it passes through the Bongo it is termed the Harey ; whilst just above its confluence with the Dyoor, it goes by the name of the Nyanahm. It divides the people of the Dyoor into the two tribes of the Gony and Wow.

On the banks of this, stretched beneath a noble tree, of which the age far exceeded any tradition of the natives, I enjoyed a noonday lounge. My dogs were never weary of awakening the echoes of the forest, which would give repeated answers to their cries. I was constrained to move on by the people who had come out to welcome me from the neighbouring Seriba of Agahd, known simply as Wow, at a distance of a league and a half to the west. The possessions of Agahd's company in this district are much scattered, and are interspersed amidst the territories belonging to other merchants. Their subordinate settlements extend far west into the lands of the Kredy, their expeditions reaching even to the western frontiers of the Niam-niam.

The further the advance towards the west from the Dyoor, the more rapid is the increase in the level of the country. The ascent indicates the progress from the basin of the Gazelle to the central highland. The Wow Seriba occupied the centre of a gentle valley sloping towards the west. The bottom of this valley, at the time of my visit, was traversed by a marshy strip of meadow, which, in the rainy season, forms a running brook that flows into the river. A steep descent of a hundred feet bounds the valley on the southwest. I was struck by the richness and diversity of the foliage—a peculiarity in this part of Africa, where vegetation seems very much to run to wood, and develops itself in bushes and in trees.

On account of the numerous gnats and gadflies on the west of the Dyoor, cattle-breeding suddenly ceases, and even in the Seribas there are found only a few sheep or goats. On the other hand, wild buffaloes, after being entirely missing for a long way to the east of the river, now re-appear. We had not come across any since we entered the region of the Gazelle, and the first that we now saw were on the southern frontier of the Bongo territory. Only one kind of buffalo is known in this part of Africa, but the difference in the formation of their horns is so remarkable that cows and bulls appear quite like two distinct animals. In the bulls the roots of the horns meet at the top of the head, and cover the whole of the

forehead, whilst in the cows they are separated by nearly the entire width of the brow.

After exploring the immediate neighbourhood of Wow, I returned at once to Kurshook Ali's Seriba, where I spent a few more days in some brief excursions.

Dense still were the woods around the settlement, although Khalil, in order to obtain arable land, was daily thinning them by fire. The small depth of soil in these parts, often barely a foot, is one of the causes of the instability of the dwellings which are run up on it, and which are also liable to destruction from worms above and from white ants below. When the inhabitants are compelled to rebuild, they prefer to settle on fresh territory—they choose virgin soil, and hence it arises that not only the villages of the natives, but even whole settlements of the Nubians, are continually changing their sites. Every place bears the name of the native chief; when he dies, therefore, the former name falls into oblivion. In consequence of this, it becomes very difficult to fix on the maps names and localities, which can rarely be permanent beyond a period of at most ten years. The only enduring landmarks are afforded by the watercourses: ages pass on, and these change but little as they fulfil their function in the economy of nature.

The environs of Kurshook Ali's Seriba abounded in every variety of game. Genets, civets, zebra-ichneumons, wart-hogs (*Phacochoerus*), wild pigs, cats, lynxes, servals, caracals, and the large family of the antelopes, all found here their home.

In this neighbourhood I killed my first hartebeest and a leucotis antelope. The hartebeest (*Antilope caama*) is common throughout the greater part of the continent, and varies in its form, its colour, and the shape of its horns, according to sex, age, and adventitious circumstances. In zoological collections two specimens are rarely seen exactly alike.* Called "karia" by the Bongo, and "songoro" by the Niam-niam, the hartebeest is the most frequent of all the larger game. It is generally found in small herds, varying in number from five to ten, its haunts being chiefly uninhabited tracts of wilderness. In the cultivated districts it prefers the light bush-forests in the vicinity of rivers, though it is never seen actually in the river-valleys. It takes its midday rest by standing motionless against trunks of trees or ant-hills; and by its similarity in hue to the background which it chooses, it often eludes all

* It may not be superfluous to give a picture of an old buck, nor to remark that the females also have horns.

observation. Throughout all the rainy season its colour is bright —a sort of yellow-brown, with a belly nearly white; but in the winter it tones down to a dullish grey. With the exception of the leucotis, its flesh is the best eating of any game in the country.



CENTRAL AFRICAN HARTEBEEST.

The leucotis antelope* is the species that congregates in the largest number in any of the districts that have been hitherto explored. In the dry season they are often seen in the wadys in large herds, varying from 100 to 300 head; during the rains they resort to the more elevated forests. That is their pairing time, and they divide into smaller groups. These graceful animals have the same habit as the South African spring-bock; running at full speed, with outspanned legs, they often bound four or five feet high, and jump clean over one another. The female, which has no horns, in colour and size very much resembles the yalo (*A. arundinacea*), but it can be easily distinguished by the hair on the metatarsus being black, while in the yalo it is grey.

Two leagues to the south of the new Seriba was the site of the one which had been burnt. But few vestiges remained, for nature here soon effaces what fire may have spared. The only surviving evidence of its ever having been the resort of men was a thriving

* Illustrations are given of the male and female in the following page.

grove of plantains (*Musa sapientum*). The shoots had been introduced from the Niam-niam lands. In the meagre households of



LEUCOTIS ANTELOPE (MALE).

the Nubians, fruits and vegetables are hardly considered necessities ; indolence and distaste for work cause the gardens to be much neglected.



LEUCOTIS ANTELOPE (FEMALE).

Copious is the river as it flows by the place, shaded by magnificent afzelia, filæa, and syzygium. The impenetrable jungles of bamboo, which extend on either side, are the abode of a large

number of bear-baboons. It was in vain that for some hours I pursued one after another of these bellowing brutes : immediately they became aware of my approach, they were knowing enough to quit their exposed positions on the trees and conceal themselves amidst the waving grass. The jungle swarmed, too, with great wart-hogs (*Phacochoerus*), which appear as ineradicable as the wild boars of Europe. The chase of these had small attraction for me, aware as I was of the extreme unsavouriness of their flesh.

On my way back to the Seriba I made a slight *détour*, in order to visit the village of the Dyoor chief Okale. This lies to the east, upon a small stream, the banks of which are shadowed by some splendid woods that display the glories of the Niam-niam wilderness. It was like an enclave of the south transported to the brushwoods of the north. I looked here that I might discover the palm-tree, which the Khartoomers call the Nakhl-el-Faraoon (or Pharaoh's date-palm), and of which they had given a wonderful description that roused my curiosity. I soon satisfied myself that they really meant the *Raphia vinifera*, which grows far and wide throughout Tropical Africa, although probably, in this direction, this may be its limit. A considerable number of the trees and plants characteristic of the Niam-niam lands occurred to me in my rambles, and amongst them the blippo (*Gardenia malleifera*), with the inky sap of which the Niam-niam and the Monbuttoo delight to dye themselves.

Whether we advanced through villages or hamlets, we always found their overseers in their full state. Their official costume was everywhere a long chintz shirt. From their sparkling eyes beamed forth the delight with which they regarded my appearance, doubtless to them singular enough. Most readily they admitted me to every corner of their households, whence I procured one curiosity after another, and what I could not carry away I copied into my sketch-book.

CHAPTER III.

Daily life of the Dyoor—Their race—Iron-smelting—Formation of huts—Idyll of village life—Hunting with snares—Women's work—Graves—Affection—in Ghattas's Seriba—Laying out of garden—Physiognomy of vegetation—Geography of plants—Seriba law—Cattle-raids on the Dinka—Tour round Ghattas's Seribas—Geography at Geer—Fish of the Tondy—Fear of ghosts in Koolongo—Caves of Kubbehee—Bamboos in blossom—Triumph of Nature over her traducers—Joint-stock distillery in Gurfala—Nubian love of drink—Petherick's Mundo—Unsuccessful chase—Two bush-antelopes—Cultivated plants of the district—Cereals—Large growth of sorghum—Leguminous fruits—Oily fruits—Tubers—Vegetables—Tobacco—Smoking in Africa.

ALTHOUGH I could not manage, in the course of an excursion not occupying three weeks, to traverse the entire district of the Dyoor, I nevertheless very much increased my familiarity with their habits.

Dyoor is a name assigned by the Dinka, and is synonymous with men of the woods, or wild men. This designation is a name of contempt, and is intended to imply the condition of poverty, in which, according to Dinka ideas, the Dyoor pass their existence. Of course, it refers to their giving their sole attention to agriculture, to their few goats and poultry, and to their disregard of property in cattle. They speak of themselves as Lwoh. They use the Shillook dialect unaltered except in a few expressions which they have adopted, and are anxious to claim a northern origin, specifying their progenitors as O-Shwolo, or Shillooks. The area of their territory is quite small, and their number cannot exceed 20,000 souls.

On the north they are bounded by the larger tribe of the Dembo and some smaller kindred clans. Eighty miles to the south of them, but separated by the entire width of the Bongo country, reside the Belanda, a tribe whose customs are modified by their intercourse with the Bongo, but who still make use, with very minor differences, of the Shillook dialect. These Belanda are partly under the surveillance of the Niam-niam king Solongho, and partly tributary to the intruders from Khartoom.

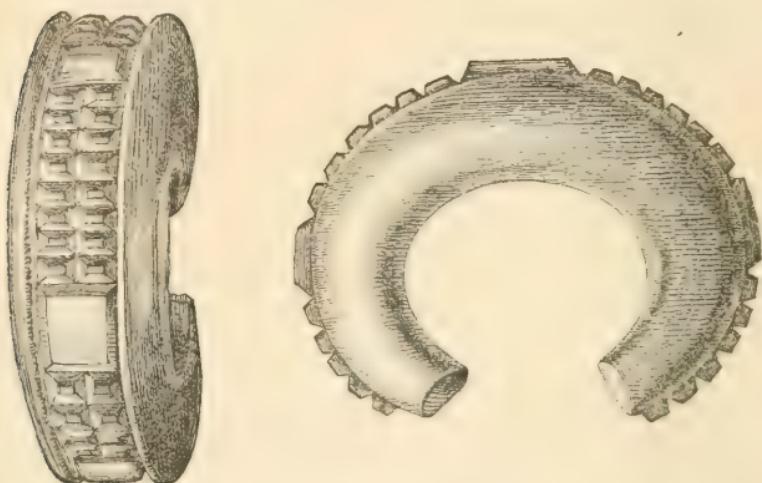
The chequered map of Africa suggests to every reflective mind many considerations as to how any advance in civilisation can be possible. There is an utter want of wholesome intercourse between race and race. For any member of a tribe which speaks one dialect to cross the borders of a tribe that speaks another is to make a venture at the hazard of his life. Districts there are, otherwise prosperous in every way, which become over-populated, and from these there are emigrations, which entail a change of pursuits, so that cattle-breeders become agriculturists and agriculturists become hunters living on the chase ; districts again there are which shelter the remnant of a people who are resisting oppression to the very verge of despair ; and there are districts, moreover, which have been actually reduced to a condition of vassalage and servitude ; but the case is here altogether without example of a district which, whatever be its other fluctuations, has ever submitted to a change of race or of tongue.

Former travellers, although they have found their way to the Dyoor without concerning themselves with the origin of the people, appear to have made the observation that their complexion is a shade lighter than that of the Dinka. For my part I am convinced that this is so ; not that I should feel justified in insisting upon this token as showing a difference between Dinka and Shillooks. Probably, the colour of the skin of the Dyoor loses something of its darker hue from their living in the shadows of their woodlands ; but this is a question which involves meteorological and geographical considerations which are beyond our grasp.

In spite of their intercourse for many years with the Dinka, and their partial dependence upon them, the Dyoor have not departed from the Shillook mode of decorating themselves. Just on the extreme borders a few may every now and then be found imitating the radial stripes upon the foreheads ; but it is quite uncommon for either sex to tattoo themselves. Neither does their daily familiarity with the Nubians induce them to adopt a modest dress. They only wear round the back of their loins a short covering of leather, something like the skirts of an ordinary frock coat ; a calfskin answers this purpose best, of which they make two tails to hang down behind. Anything like the decorations of the hair which have excited our wonder amongst the Shillook and the Dinka is here totally rejected, and the Dyoor, men and women alike, have their hair closely cropped.

The favourite ornaments of the men very much resemble those of

the Dinka, consisting of a collection of iron rings below the elbow and a huge ivory ring above the elbow. One decoration peculiar to the men consists of some heavy circlets of molten brass, which are very elaborately engraved. Brass, as known amongst the people, is called "damara," and is about thrice the value of copper; it had been introduced into their traffic long before the arrival of any Khartoomers, having been brought as an article of commerce by the Dembo, who, as neighbours of the Baggara, were led into business



BRASS ORNAMENTS OF THE DYOR.

relations alike with Kordofan and Darfoor on the one hand, and with the northern negroes on the other. Our fine metals, one and all, were quite unknown amongst them.

Their women, too, in hardly any respect differ from the Dinka women; like them, they burden the wrists and ankles with a cluster of rings. Very frequently one great iron ring is thrust through the nose, the hole to admit it being bored indifferently through the base, the bridge, or the nostrils. The rims of the ears also are pierced to carry an indefinite number of rings. These deformities are especially characteristic of the Belanda, who sometimes attach to their nose a dozen rings at once.

One of the iron decorations which is most admired, and which is found far away right into the heart of Africa, I first saw here amongst the Dyoor; I mean the iron beads or perforated little cylinders of iron, strung together. Every tribe which I visited in

proceeding inland from the Gazelle I found to retain the preference for beads made of iron.

In recent times they have lost some of their ancient habits. For instance, the practice of mutual spitting, which was long the ordinary mode of salutation, has fallen into desuetude. Throughout the entire period of my residence in Africa I was never a witness of



PORTRAIT OF A DYOOR.

it more than three times: and in all these cases the spitting betokened the most affectionate goodwill; it was a pledge of attachment, an oath of fidelity; it was to their mind the proper way of giving solemnity to a league of friendship.

The spot which the Dyoor inhabit is the inferior terrace of the

ferruginous formation in the district. The consequence is that they are quite at home with all ironwork. The Dinka, although they do not settle down close to them, because of the hostility of the Bongo, yet are glad to welcome the Dyoor, in order to avail themselves of their aid in getting at the iron, which would otherwise be unsecured. It might almost be said that every Dyoor is a smith by profession. The result of their toil, however, does not so



SPEAR-HEAD.

much find its way to the underground stores of the Dinka as to the magazines of the Khartoom merchants.

The usual shape in which the raw material is used as a medium of exchange is in spear-heads* or in spades. Throughout the whole district of the Upper Nile these answer all the purposes of our current coin.

Just before the commencement of seed-time, in March, the

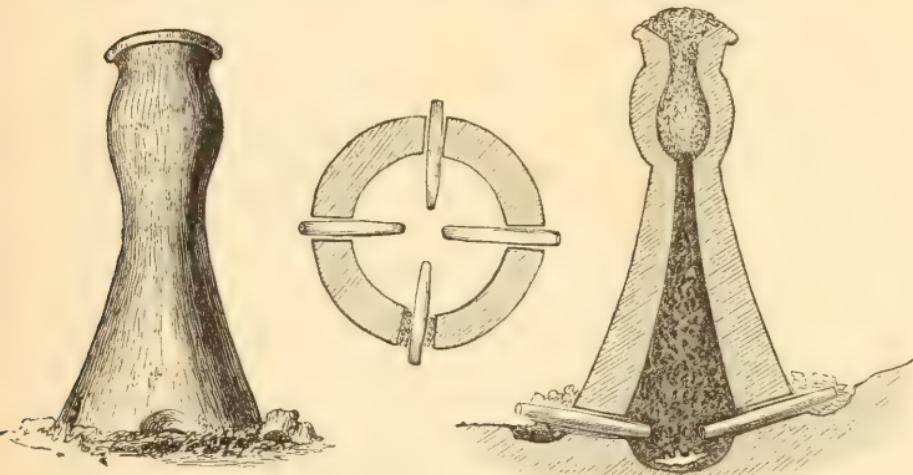


DYOOR SPADE.

Dyoor make a general move away from their huts, partly for the purpose of dragging the rivers for fish, and partly to busy themselves with iron-smelting in the woods. In the shaded centre of a very wooded spot they construct their furnaces of common clay, making them in groups, sometimes as many as a dozen, according to the number of the party. Their wives and children accompany them, and carry all their movables. In the midst of

* The spear-heads, as represented in the engraving, are about three-quarters of a yard in length.

the wilderness, otherwise so desolate, they form a singular picture. The stems of the trees gleam again with their lances and harpoons; on the branches hang the stout bows ready for the buffalo-hunt; everywhere are seen the draw-nets, hand-nets, snares and creels, and other fishing-tackle. There is a mingled collection of household effects, consisting of gourd-shells, baskets, dried fish and crocodile, game, horns, and hides. On the ground lie piles of coals, of ore, of cinders, and of dross. Petherick, the first explorer of this Dyoor district, has given a very accurate account of their primitive method of smelting iron, so that I may be repeating in a degree what has been related before: many things, however, there are which appeared to me under a somewhat different aspect.



DYOOR SMELTING-FURNACE.

The smelting-furnace is a cone, not more than four feet high, widening at the top into a great goblet shape. So little deviation was there in the form of any that I saw that all seemed to me to be erected on precisely the same model. One obstacle to the construction of larger furnaces is the extreme difficulty of preventing the mass of clay from cracking in the process of drying. The cup-shaped aperture at the top communicates by a very small throat with the cavity below, which is entirely filled with carbons. Into the upper receiver are thrown fragments of ore, of about a solid inch, till it is full. The hollow tunnel extends lower than the level of the ground; and the melted mass of iron, finding its way through the red-hot fuel, collects below in a pile of slag. At

the base there are four openings: one of these is much larger than the others, and is used for the removal of the scoriæ; the other three are to admit the long tewel-irons, which reach to the middle of the bottom, and keep the apertures free for the admission of air. Without stoking, the openings would very soon become blocked up with slag. In reply to my inquiry I was told that bellows are never employed; it was said that too fierce a fire was injurious, and caused a loss of metal. A period of a day and a half, or about forty hours, is requisite to secure the product of one kindling. When the flames have penetrated right through the mass of ore until they rise above it, the burning is presumed to be satisfactory.

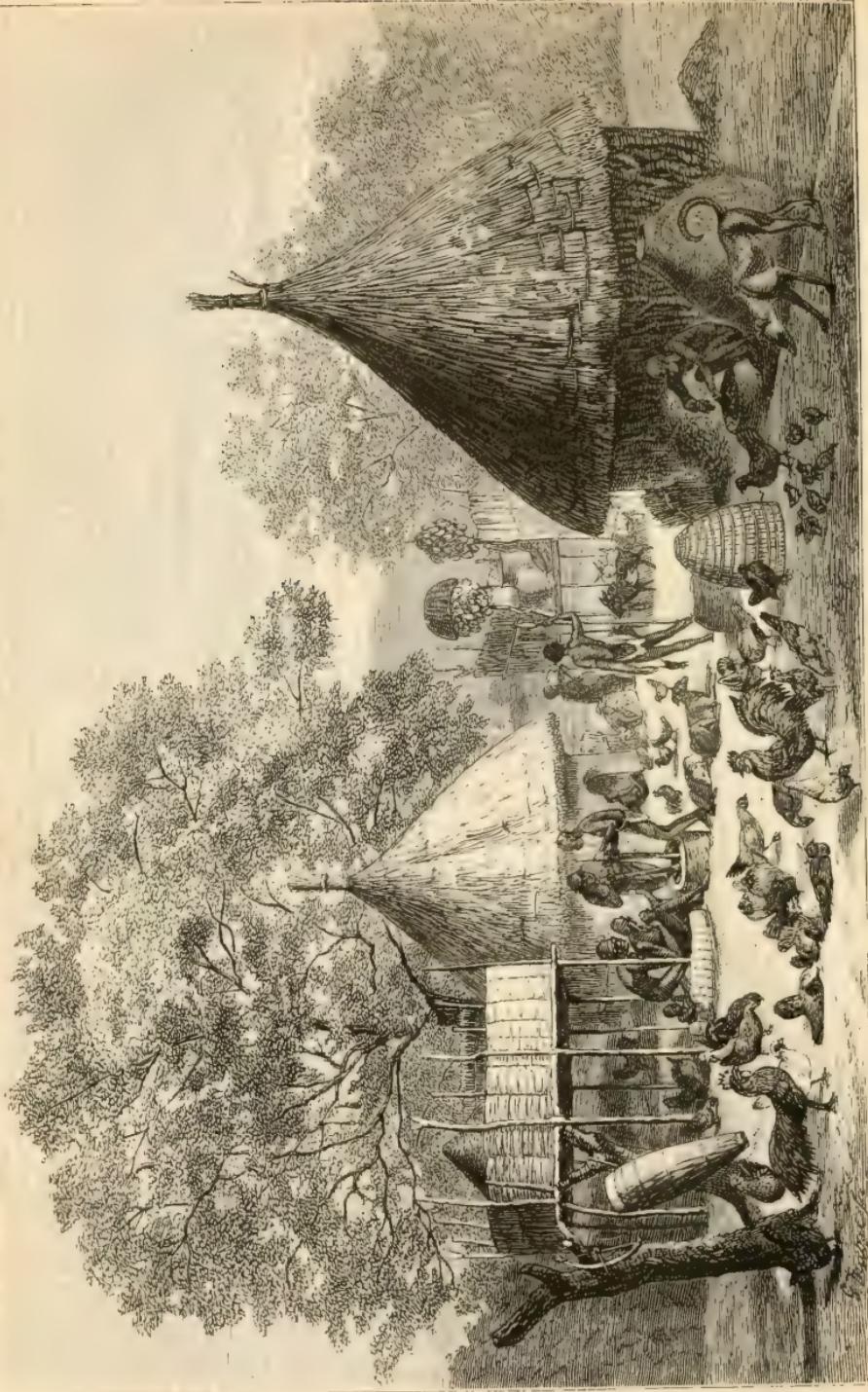
The deposit of metal and fuel is heated a second time, and the heavy portion, which is detached in little leaflets and granules, is once more subjected to fire in crucibles of clay. The particles, red-hot, are beaten together by a great stone into one compact mass, and, by repeated hammering, are made to throw off their final dross. Nearly half of the true metal is scattered about during the progress of the smelting, and would be entirely lost if it were not secured by the natives. In regard to its homogeneousness and its malleability, the iron procured in this way is quite equal to the best forged iron of our country.

If a comparison might be instituted, I should say that in Africa iron might be estimated to have a value about equivalent to copper with us, while the worth of copper would correspond to that of silver.

For fifteen years have the Nubians now been brought into contact with this region, but they have never taught the natives either the way to make bricks or any intelligent conception of the use of charcoal. Themselves too lazy to improve the treasures which a bountiful Nature has flung amongst them, they are too idle and too indifferent to stimulate even the people they have subjugated to put forth any energy at all. And this is but one proof out of many of the demoralising tendency of Islamism, which would ever give a retrograde movement to all civilisation.

Throughout Africa I have never come across a tribe that has not adopted a mode of building huts which, with respect to both exterior and interior, is not peculiar to itself. The huts of the Dyoor do not resemble the mushroom shapes of the Shilooks, nor are they like the substantial huts of the Dinka, massive and distinguished by small outbuildings and porches. Again, they

DYOOK VILLAGE IN WINTER.



could not for a moment be mistaken to be dwellings of the Bongo, because they have no straw projections about the top of the roof. In a general way they are a yet more simple and unadorned construction—not that they are destitute of that neat symmetry which seems to belong to all negro dwellings. The roof is a simple pyramid of straw, of which the section is an equilateral triangle, the substructure being all of wickerwork, either of wood or bamboo, and cemented with clay.

Inside every hut there is a large receptacle for storing whatever corn or other provision is necessary for the household. These are made of wickerwork, and have a shape like great bottles. To protect them against the rats, which never fail to carry on their depredations, they are most carefully overdaubed with thick clay. They occupy a very large proportion of the open space in the interior; very often they are six or seven feet in height, and sometimes are made from a compound of chopped stubble and mud. After the huts have been abandoned, and all else has fallen into decay, these very frequently survive, and present the appearance of a bake-oven gone to ruin. In the Arabic of the Soudan this receptacle is called a "googah." It is derived from the Dinka; the huts of the Bongo and the Niam-niam having nothing of the sort, because they build detached granaries for their corn.

The picture which is here introduced is a representation of the rural pursuits of this peaceful tribe. It is presumed to be winter time, when, for some months to come, no rain is to be expected. It may be taken as illustrating what might be witnessed at any time between October and April. The tall erections adjacent to the huts contain the various grain requisite for the next seed time, and may be supposed to be full of the sorghum, the maize, and the gourd. It is better to let these be exposed to the sun rather than to run the risk of having them devoured by rats or vermin in the huts. Underneath these structures the goats are tethered; besides these, dogs and some poultry are the only domestic animals they keep.

The open space in front of the huts is most carefully levelled by treading it down. Upon this floor, which is perfectly hard, the corn is winnowed; and it serves as a common area for all domestic purposes. In front of the huts, too, sunk to some depth below the ground, there is a great wooden mortar, in which the corn, after it has been first pounded by the primitive African method of stones, is reduced to a fine meal by rubbing with the hands. The

Dinka also use these sunken mortars, which are hewn out of some hard wood ; but the Bongo and Niam-niam carry with them movable mortars of a smaller size.

To the right may be observed a man, who is collecting iron ore, and one of the wicker baskets which belong to the reserve of corn. Great gongs hang upon the posts towards the left, and some of the massive bows, of which the strings are ready stretched by a billet to serve as snares. This artifice is employed by several of the people of this district to facilitate their chase of the wild buffaloes. Very strong straps of hide are strained across the tall grass of the lowlands, where the buffaloes congregate. One end is fastened either to a tree or to a peg driven into the ground, the other end attached to the bow. This forms a kind of noose which, through the rebound of the billet, tightens itself about the legs of the buffalo when it strains it. The startled beast makes a bound, and is immediately fettered. The hunters, who have been lying in wait, seize this moment, and with their lances, strike at the prey, which, if not utterly entangled, is sure to be obstructed by the bow in its running. In a similar way all the larger antelopes are captured, especially the powerful eland, at which it is hard to get, even after it has been driven to the marshy levels.

Good large families have the Dyoor ; and were it not that the Nubians come upon the land, and every year carry off at least half the corn that is grown, there would long ago have been, as with their kindred on the White Nile, a dense Dyoor population. They partake also of the skilfulness of the Shillooks in obtaining resources for livelihood in various ways : they pursue the chase ; they practise fishing when they have the chance ; they are industrious in tillage ; they thoroughly appreciate the value of cattle, and would like to possess them, although in their new settlement they can boast little more than a few lean goats. To have a well-stocked poultry-yard, and to possess that friend of man, a good dog, is essential to the satisfaction of a Dyoor household. Upon these the attention of the men is centred, and on these they make their largest outlay. If they escape servitude to the Nubians, and are not obliged to turn porters to convey their burdens, or builders to erect their dwellings, they employ themselves with their fishing and hunting, or in practising the art of Tubal Cain. Field labour is all done by the women, upon whom also falls the entire domestic superintendence as well as the actual work of the house ; they make all the wickerwork and manage all the manipulation of the clay ;

they trample down the level floor and mould the vessels of every size. It is remarkable how they contrive with the mere hand to turn out immense vessels which, even to a critical eye, have all the appearance of being made on a wheel. In order to render a clay floor perfectly level and free from cracks they work in a very original way. They procure from the woods a piece of tough bark, about three feet long ; they then kneel down upon the clay, and persevere in patting it with their pieces of bark till they make the surface of the soil as smooth as though it had been rolled. In a very similar way they prepare the graves for their dead, which they arrange very close to their huts. A circular mound, some three or four feet high, indicates the situation of the last resting-place of a Dyoor so long as the violence of the rain allows it to retain its shape ; but a very few years suffice to obliterate the final vestiges of these transient memorials.

Affection for parents and for children is developed amongst the Dyoor much more decidedly than in any other Central African tribe which I have known. In a way that I have not observed among other pagan negroes, they place their infants in long baskets that answer the purpose of cradles. There is a kind of affection which even brutes can display to their offspring as well as human beings. In the very lowest grades of human society there is ever a kind of bond which lasts for life between mother and child, although the father may be a stranger to it. Such, to say the least, is the measure of affection which the Dyoor show to their little ones. Nor is this all ; they have a reverence for age ; and in every hamlet there are grey heads amongst them.

I was again in Ghattas's Seriba on the 13th of May. The arrival of an ivory caravan on its return journey from the Niam-niam had brought an unwonted animation. But for me very soon the ordinary routine of life came back, and one day passed on just like another in the closest intercourse with Nature. Except during some temporary excursions to the Bongo, this Seriba would be my residence for some months to come, and I set to work to make my quarters as comfortable as I could in a good-sized hut which had been vacated for me.

The first thing I did was to lay out a large vegetable-garden, a task which engaged not only all my own people, but gave occupation to not a few of the black slaves of the place. I had brought with me a good supply of pickaxes and spades, and I had likewise a capital collection of seeds. Thus I hoped at once to provide for

my own necessities, and to prove to the natives the productiveness of their soil.

Of maize and tobacco I had a wonderful crop, far surpassing any that had been seen before.

The hard, yet fertile soil, I feel certain, is quite suited for our cucumbers, cabbage, turnip-cabbage, and radishes. Of radishes, the European sort succeeds better than the Egyptian, which belongs to quite an anomalous variety. Melons and water-melons can only be ripened during the winter months, when they are artificially protected and supplied with moisture. Any attempt to grow them in the rainy season always results in failure ; either the fruit is eaten by worms long before it is mature, or the leaves are devoured by grubs. Here, too, I trained some tomatoes and sunflowers, which ever since have been quite naturalised in this part of Africa.

When I had seen all the labours of the kitchen-garden complete, I was free to abandon myself to the full delights of the flora. Up with the sun, I used to take one or two of my people with me to carry my portfolios and my arms, and in the safe proximity of the Seriba I explored the woods for hours together, returning about noon with a whole treasury of floral wealth. My table at meals never failed to be well supplied, and I was treated as bountifully as in Africa I could be. I enjoyed sitting in the shade of some spreading tree, while I proceeded to analyse, to classify, and to register, the various novelties which I was perpetually finding. Later in the day I was in the habit of wandering out alone over the plains, whilst my servants at home busied themselves in renewing the paper for my *hortus siccus*, and in pressing out the plants afresh. This labour of the day was often carried on till quite late at night : it was repeated so often that my collection increased to a very considerable extent ; roll was piled up upon roll ; everything most carefully stitched up in hides ready to go along with me on my farther journey, and to be carried across deserts and seas until they could finally be deposited in the magazines of science.

Nothing could more completely witness to the great variety of vegetation in my immediate neighbourhood than the fact that during my residence of five months I made a collection of almost 700 flowering plants, which I duly classified. Here, in the land of the Dyoor and the Bongo, Flora seems to delight in crowding all her profusion upon the earlier months of the rainy period : the autumn is left comparatively barren, and even at the height of the

rain there is little to be found which was not already in perfection some time before.

The land itself seems decidedly less varied than in the most uniform districts of Germany. Woods indeed there are, and steppes; there are low grassy pastures and shrubby thickets; there are fields and coppices; there are marshes and pools; there are bare rocky flats, and occasionally a rocky declivity; very rarely, and only in the dry, out-drained river-beds, are sands to be met with; and from these ordinary characteristics there is little or no deviation.

The features of the woodlands are, however, very diversified. There are trees which run up to a height varying from 30 to 40 feet, and these alternate with dwarf shrubs and compact underwood. Many of the fields are marked by single trees, which stand quite apart, having been intentionally preserved by the natives because of their edible fruit. In some places there are low-lying grassy flats, which in the rainy months are quite impassable, because the grass grows taller than a man; whilst in others the grass is stunted, because there is but a thin layer of soil to cover the rock below, and consequently vegetation is comparatively weak. As to the pasture lands, they seem to be interrupted every here and there with bushy and impenetrable thickets, which are either grouped around some isolated trees or luxuriate about some high white ant-hill. In the shade of these are found the splendid bulbs of the Hæmanthus, Gloriosa, Clorophytum, and the wonderful Kosaria. Upon the drier spots within the forests, or where the clay-soil happens to be mixed with sand, weeds and herbaceous plants are found which recall the flora of the northern steppes. Amongst these are the Capparideæ, which (existing as they do in the south of Nubia) make good their claim to be a bond of union between the two zones. Pressing farther into the thickets which are formed in the forests, we come across great trees so thickly bound by the wonderful foliage of the large creeper Carpodinus, that a ray of sunlight can never pass them. Here, too, are wild vines of many a kind, the festoons of which are further burdened as they hang by Dioscoriæ and Asclepiads.

Many are the comparisons that might be made by way of analogy between the numerous trees of this delightfully wooded district and those of our own home. Some of the trees at first sight have a considerable likeness to our common oaks: amongst these may be named both the *Terminalia* and the butter-tree (*Bassia* or

Buterospermum). The fruit of the latter consists of a globular oily kernel, which looks something like a horse-chestnut, and which is as large as a good-sized apricot, and is enveloped in a green rind. This envelope can be kept till it is as enjoyable as a medlar, and is considered one of the chief fruits of the country. From the



KOSARIA PALMATA.

kernels of this widely-known tree an oil is expressed, which, under the name of "butter of Galam," is a recognised article of commerce in Gambia. The tree itself is very handsome, having a bark which is regularly marked by polygonal rifts in its surface, and which permits it to be likened to an oak.

A very common tree, which bears a somewhat striking resemblance to our white beech, is the small-leaved *Anogeissus*. Nut-trees are here replaced by *Kigelia* and *Odina*. Far spread as are trees of the character of our oak, so too we may say are trees which have the look of a horse-chestnut. Of this kind is the *Vitex*

Cienkowskii, with others of the species, of which the sweet olive-shaped fruit is gathered as assiduously by the natives as by the wart-hogs, which relish it exceedingly. Another favourite fruit is the produce of the *Diospyros mespiliformis*. The plane-tree may here be said to be represented, equally with respect to its bark, its foliage, and the pattern of its leaves, by the splendid *Sterculia tomentosa*, which has established itself pretty generally throughout Tropical Africa. In the place of willows Africa offers the *Anaphrenium*; and over and over again the traveller may fancy that he sees the graceful locust-tree. The *Parkia* is another of those imposing trees which are met with; the leaves of this are not unlike the *Poinciana*, which is known as the *Poincillaie* or Flamboyer: its flowers are a fiery red with long stamens, and hang in a tuft; when they die off they leave a whole bundle of pods, a foot in length, in which the seeds are found covered with a yellow dust. The Bongo, as indeed do the Peulhs of Footah Dyalon in West Africa, mix this mealy dust with their flour, and seem to enjoy it, but it needs an African palate to conquer the repulsiveness of this preparation.

Many types of vegetation, however, abound, to which we are altogether unaccustomed, and can exhibit nothing which appears to correspond. It is not only by the exuberance and dignity of their forms that these are marked, but still more by the novelty and grace with which Nature seems to have invested them. No European production in any way represents the *Anona senegalensis*, with its large blue-green leaf and small fruit. This fruit contains an aromatic dark red pulp, and in a moderate degree it displays something of that captivating quality which has exalted its kindred plant, the *Cherimolia* of Peru, to its high repute as the queen of fruits.

Much more singular is the magnificent candelabra-euphorbia, which follows the pattern of its prototype, the American cactus. Palms are not frequent enough to play any important part in the scenery, or to demand any particular specification. Groups of the *Borassus* are observed near the river-banks, and the *Phænix spinosa*, the original of the date-palm, grows upon the marshes of the steppe. Next must be mentioned the varieties of fig-trees, with their leathery leaves, and, associated with them, those chief characteristics of African vegetation, the Combretæ and the Rubiaceæ; tamarinds with their thick tubular corollas, and shrubby Gardeniæ, dwarf and contorted. It was the southern limit of the acacias of the White

Nile ; and only in isolated cases was the stem of the *Balanites* to be seen, lingering, as it were, on the steppes of Nubia. Even the tamarind had become scarce, and farther south I did not meet with it at all.

In its general character the flora of this district seems to conform very much to what has been discovered on the table-land of Western Africa, of which the lower terraces form a narrow belt along the shore, and are distinguished for the wild luxuriance with which the African primeval forest seeks to rival the splendour of Brazilian nature. In contrast to this, the bush-forests in the higher parts of Tropical Africa, broken by the steppes, present in uniformity perhaps the most extensive district that could be pointed out in the whole geography of vegetation. Extending, as it does, from Senegal to the Zambesi, and from Abyssinia to Benguela, Tropical Africa may be asserted to be without any perceptible alternation in character, but that which is offered by the double aspect of steppe and bush on the one hand, and by primeval forest in the American sense on the other.

It is not in the least behind the most abundant tropical districts of the New World in producing timber trees. Trees and shrubs constitute quite a fifth of the entire production, and in the woods of the Bongo the variety of foliage is everywhere astonishing. Any tracts covered by a single species are altogether rare, and would exist only within the most limited range. This uniformity of Tropical Africa, in comparison with the enormous space which it occupies, and the striking want of provinces in the geography of its plants which it displays, are the results of several agencies. On the one hand, it arises from the massive and compact form of the whole; and on the other hand, by an external girdle which keeps it shut up, so that it is not penetrated by foreign types of vegetation. This girdle is made by currents of the sea and long tracts of desert (the Sahara and Kalahari), and encircles it entirely. In the direction towards Arabia there is, as it were, a bridge into the regions of India, and, indeed, the Indian flora has a great share in the characteristics of its vegetation. The greater number of the African cultivated plants, as well as nearly all their associated weeds, have been, beyond a doubt, derived from India—a conjecture, equivalent to a prophecy, which Rob. Brown had formed at a time when little was known of the vegetation of Central Africa.

Already have I expressed my happiness at having thus reached the object of my cherished hopes—my satisfaction at thus finding

life to be with me an idyll of African nature. My health was unimpaired, and never before had I been less hindered in prosecuting my pursuits. I felt alone in the temple of creation. The people around me were somewhat embarrassing. Their wickedness, with its attendant impurity, stood out in sad contrast to the purity of nature; but it did not greatly disturb the inner repose of this tranquil life.

In more than one respect a star of ill-luck seemed this year to have risen over the enterprise of the company of Ghattas. The season had drawn near in which the agents usually commenced their annual depredations in the districts of the Dinka to replenish their stock of cattle. As the various associations were entering upon mutual competition, in order to prevent disagreements, there was laid down a kind of Seriba law, which was pretty well the same everywhere. First of all, the territories immediately dependent were distinctly designated. Then it provided that the approaches to the Meshera should only be used by those who could establish a claim to them. Nearly every Seriba had its separate avenues, upon which it levied a toll, and an avenue without tolls was not a legitimate highway at all. If any extraordinary companies desired to make use of these roads, they must first come to terms with the Seriba agents, who had the supervision of the right of way. Even chieftains who supplied provisions to those who were on their transit, would be sure to attack them as foes if they were not first conciliated by being appointed as guides and dragomans.

Very similar was the arrangement that regulated all the expeditions which were undertaken against the Niam-niam. Each separate company had its own route and its own train of captains, who purchased the ivory and procured a market. No new-comers were allowed to intrude themselves into an established market, or to infringe upon its trade. Fresh marts could only be established by pressing farther onwards into the interior. These new establishments in their turn were subject to monopoly, and were rigidly protected. Wherever any violation of this rule occurred, there would be very serious conflicts—so much so, that amongst the Nubians the affray was very often fatal. This, however, would only happen while the contest was limited between one negro and another, for true Nubians at once renounce all allegiance to a leader who presumed to shoot a brother Nubian.

The Khartoom companies are most jealous of all their rights of

cattle-plunder, alike in this region and in every other. The district over which the incursions of Ghattas ranged embrace the whole of the lower course of the river Tondy. During the previous year it was said that the total of the booty was no less than 8000 oxen ; but this year, although the aggressions were thrice renewed, the result was altogether a failure, and was quite a derision amongst the neighbours, being barely forty head of cattle. Other companies, which had been more fortunate in plunder, were now ready to avail themselves of the opportunity to dispose of their superfluous cattle in barter for what the country afforded. Sometimes it might be for slaves, or for copper rings, or sometimes (and this was a very favourite method) for bills of exchange upon Khartoom. Thus those who lived upon robbery were glad mutually to make a market of each other.

When I consider the ravages that are made year after year on so large a scale upon the cattle of the Dinka, and the enormous consumption of the Nubians, I confess that it is quite an enigma to me how the supply is not exhausted. Although I am aware that they never kill their cattle, yet the murrain of flies every season decimates their herds ; and, besides this, their cows very seldom ever calve more than once, and very frequently remain utterly barren. Observations of this kind somewhat assist us in forming an estimate of the vast numbers of the people, since for the mere oversight and custody of the myriads of cattle there must be multitudes of men corresponding to the hand-to-mouth population of our civilised communities.

From the 21st of July until the 4th of August I made a tour, which gave me an opportunity of inspecting the subsidiary Seribas of Ghattas. My acquaintance with the country was thus materially enlarged. A march of about four leagues towards the south-west brought me again, by a road which I had not hitherto traversed, to Geer, where the fields of sesame were already in bloom.

Like all my other wanderings in the interior, this little excursion was made entirely on foot. To get along through the tall grass was anything but easy. The negroes tread down a sort of gutter, the width of their foot, and along these we made our way, as in a wheel-rut, as best we could. It was quite necessary to keep one's steps verging inwards. Occasionally these gutters change their character and become water-courses, by means of which the adjacent steppes are drained. But the enjoyment of a luxuriant nature, with its perpetual change of scene, and the charms of

novelty which presented themselves in the foliage, compensated richly for a little toil ; and day by day practice made the trouble lighter.

This tour contributed in various ways to my stock of information. In Geer I met with a Faki from Darfoor, who had formerly visited Bornu and the Western Soudan. With him I had a long geographical dispute as to whether the great river of the Monbuttoo emptied itself into the Tsad, or flowed direct into the sea. The Foorian argued justly for the Shary, whilst I, on the other hand, was referring to the Benwe. I succeeded in stirring him and all the other interested listeners to a state of considerable amazement at my acquaintance with localities of which they had no knowledge except by report and which they hardly knew even by name. I told them about the whole series of states right away from Darfoor to the ocean.

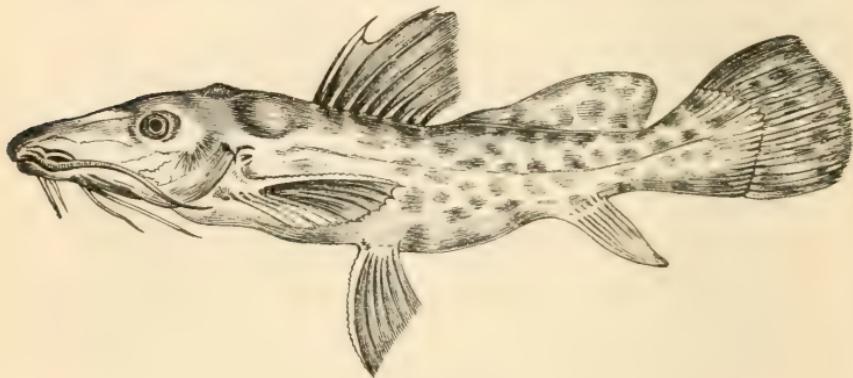
From Geer, with its questions of geography, history, and political economy, I proceeded another league and a half, and came to Addai, where the whole armed force was employing itself most peaceably in the art of tailoring. In nearly all Mohammedan countries needlework is the business of the men. A short league brought me to Koolongo, past which there flows a copious stream, bordered by thick jungles of impenetrable bamboos, and which, not far from Addai, flows into the Tondy. The stream is singularly abundant in fish, and the Bongo were busy in securing their chief haul. They proceed very much in the European way of damming up the stream by weirs, and laying down wicker-pots of considerable size. The fishing, for the most part, is done twice in the year; first, at the commencement of the rainy season, and again when the waters begin to subside.

A large proportion of the fish captured in this stream is nearly the same as what is found in the Lower Nile and in Egypt; but some sorts are found which are peculiar; amongst which the fish-salamander (*Lepidosiren*) and some *Siluridae* may be mentioned as representatives of the tropics in Africa. There is one kind of these called Kilnoky by the Bongo, and which is rather interesting. It reminds one of the species of the *Auchenipterus* or *Synodontis*, which are distinguished by their forked tail-fins.

There are two methods which the Bongo employ to preserve the flesh of their fish. Table salt they cannot get, but they obtain a substitute from ashes. They cut the fish through lengthways, simply expose it to be dried in the sun, and afterwards hang it up

to be fumigated in the clouds of smoke which fill their huts. Another way is to cut up the fish and dry it, and then to pound it all up in mortars until it is reduced to a jelly, which is rolled into balls about the size of the fist. These, with their high flavour, form a favourite ingredient in soups and sauces, which are entirely wanting in all other aromatic condiments.

In Koolongo so many ridiculous tales were dressed up for me about the wonders of the subterranean world, and of the abodes of evil spirits in the neighbouring caves, that I glowed with the desire to make their acquaintance. No one that I could find in the Seriba had ever ventured to visit the dreaded grottoes, and the alarm of the Governor was a great joke ; after he had talked away for an hour, and declared he would accompany me, he ended by offering a hand-



THE KILONOKY.

some "backsheesh" to one of his subordinates to take his place ; but his offer to go had been publicly made, and, as a matter of honour, he was bound to attend me. We had to cross a stream ten feet in depth, and as, on account of an injury to his foot, he was riding an ass, the timid fellow found just the pretext he wanted to excuse his return ; he could not allow his invaluable donkey to get a chill. In a party of eight, including myself, we set out towards the house of terror : three of my own servants, two of the *soi-disant* soldiers, and two of the natives who acted as guides. This company, however, could not help considering themselves inadequate to face the peril, and as we approached the caves some extra negroes from the adjacent fields were pressed into the service.

Uphill for a while was our way from Koolongo, and on accom-

plishing the ascent we had before us a wide plain, and about a league away we could discern, shrouded in a thick coppice, the spot which was the object of our march. Reaching the entrance to the cavern, we found it blocked up by a considerable fall of earth, apparently caused by the washing away of the surface soil by springs bubbling up from beneath; and the outside was so choked up by masses of underwood, that no one could suspect that there was a grotto in the rear.

When, fourteen or fifteen years previously, the first intruders made their way into this district, the story goes that hundreds of the natives, with their wives and children and all their goods and chattels, betook themselves to this inaccessible retreat; and that having died of starvation, their evil spirits survive and render their place of refuge a place of danger. I can still laugh as I picture to myself those nigger rascals resigning themselves to enter the shrubs, and I see them heaving a sigh, and looking as if they were ready to send their lances through the first devil they should happen to meet. I followed them along the hazardous pathway, the darkness growing ever deeper. Stumbling on, we made our way over blocks of stone, descending for more than a hundred feet till we reached the entrance of the cave, which, after a low kind of porchway through the rifled rocks, arches itself into a spacious grotto.

In place of any heart-rending shrieks of wicked ghosts, there was nothing more to alarm us than the whizzing of countless bats (*Phyllorhina caffra*), and thus at once the whole veil of romance was torn asunder. We reclined for a time in the cool shade, and by-and-by belief in ghosts took another shape, and the men pretended that they were terrified, because the cave was a lurking-place of lions; but as a fine brown dust covered the floor of the grotto, leaving it as smooth as though it had just been raked over, I asked them to show me some traces of the lions. They could detect nothing, however, but the vestiges of some porcupines, of which a few quills made it clear that other creatures besides ghosts and bats made the cave their home. That brown dust was a vast mass of guano that had gradually accumulated.

The rocky walls of the cave, dripping as they were with moisture, were covered with thick clusters of moss, which took the most variegated forms, and were quite a surprise in this region of Central Africa, where mosses are very scarce. A regular network of foliage, with long creepers and thorny brambles, filled up the entire glen

upon which the grotto opened, so that no ray of sunlight could ever penetrate.

The Bongo give the name of "Gubbchee" (or the subterranean) to this cavern. I tried to creep into some of the crevices, but was soon obliged to desist, sometimes because the fissures were too narrow, sometimes because the multitudes of bats came flying out in my face, and sometimes because the reeking ammonia choked me, and made further progress impossible. By some shots, however, which I discharged, I convinced myself of the magnitude of these rifts, which, within a few inches, were full of guano.

Merrily enough, we retraced our steps to the Seriba, and had some sport with the Governor about the susceptibility of his donkey. When I asked him to accept a bet of 100 dollars that he would pass a night by himself in the cave, he was quite as bumptious as on the day before; but I moderated his enthusiasm by suggesting that his donkey, perhaps, was worth more than the 100 dollars, and that I was sure that the donkey could not stand the damp. The result was, that he declined the engagement, and cried off the wager.

These details will answer the purpose of showing what kind of heroes these cattle-stealers and men-hunters are. To them most literally applies Dante's verse, when he speaks of the saucy herds who, "behind the fugitives swell with rage, but let these show their teeth, or even stretch out their purse, and at once they are gentle as a lamb." Against the poor faint-hearted negroes they were valiant and full of pluck; but all their courage vanished into nothing when they came in contact with the Shillooks and Bari.

From Koolongo I returned to Geer, from which it is distant about as far as from Addai. Half a league on the way we came to a spot where a deserted Seriba of Ghattas's exhibited its desolate remains. The sight here was very striking; after penetrating the tall masses of grass, we found some self-sown sorghum, the stalks of which reached the astonishing length of 20 feet, being beyond question the tallest cereal in the world. The extraordinary growth was probably to be attributed to the manuring substances which, year after year, collect upon and fertilise the soil. The palisades of the old Seriba were still partially standing, and were hardly higher than the surrounding grass, and the ruins were overgrown with wild gourds, calabashes, and cucumbers. The bare frameworks of the conical roofs had fallen to the ground, and lay like huge crinolines: they served as supports to the growing pumpkins, and formed in this condition a thick shady bower.

The extensive wilderness derived a weird aspect from the strange stillness that pervaded the deserted dwellings. There was not a song from a bird, there was hardly the humming of an insect; it seemed as if Nature were revelling in her undisputed sway, or as if the curse of a prophet had been wreaked upon the abodes of violence and of plunder.

By the end of July all the bamboos were in full blossom. The grains are not unlike rye, and are edible, and, in times of dearth, have been known to form a substitute for the exhausted corn. When the fruit is mature, the long, ramified panicles have a very remarkable appearance, and the ears, clustered together at their base, radiate like an ancient whirlbat.

At an equal distance of about a league and a half from Koolongo and from Geer lies the village of Gurfala. The way thither led through perpetual marshes and was so much interrupted by deep masses of mud that I had repeatedly to change my clothes. When the naked skin is exposed to the filth of the bogs, it is not only annoyed by a number of insects, some of them harmless enough, many of them most disgusting, but it is terribly cut by the sharp edges of the grass. This not merely causes considerable pain, but the wounds inflicted in this way are often very troublesome and slow to heal; they not unfrequently result among the Nubians in serious sores, and have been known to entail the loss of a foot. At every Seriba there will be found some who are suffering from this cause.

All the minor Seribas are really established for the purpose of overlooking the Bongo, and the sub-agents are always in trepidation lest there should be a sudden disappearance of all their negroes. It has not unfrequently happened that whole communities of the Bongo, quite unawares, have taken up their baggage, started off from their state of subjection, and, escaping the hands of their masters, have established themselves amongst the neighbouring Dinka. If they wish to cultivate corn for themselves, who could venture to blame them?

The Bongo name for Gurfala is Ngulfala, which indicates an earlier tribe of this race, which is no longer separated into various clans. Gurfala, I found, had its amusing associations. As in Koolongo it was the fear of ghosts for which the people had been conspicuous, so here it was the effect of a great brandy-distillery upon the inhabitants that entertained me. This distillery was kept by an old Egyptian, one of the few of his race who resided in the district of the Seribas. Out of an "ardeb," or about five bushels of

sorghum, he managed, with his rude apparatus, to extract about thirty bottles of watery alcohol. The sallow old Egyptian, whom the enjoyment of his vile liquors had tanned till his skin was as dry as parchment, was, as it were, director of a joint-stock company, of which the sub-agents and the soldiers in the Seriba were the shareholders, contributing their quota of corn to the concern. The apparatus for distilling consisted of a series of covered clay retorts, connected by tubes made of bamboo; the establishment for working was made up of a party of fat-bellied, swarthy women slaves, who had to pound away at the grain in a mortar; and as often as they paused for a moment to recover their breath, after their grinding exertions, they invariably panted till they reminded one of exhausted Cybeles. The chief material used was sorghum; the produce was a vile spirit. All the Nubians who settle here would abandon themselves very much to the use of brandy, if it could be more readily procured and if a continual superabundance were at their disposal; their fanaticism, however, is irreproachable; they rigorously follow the prescription of their law, and most scrupulously observe the Fast of Ramadan.

Together with the fresh relays arrived rows of spirit-flasks in their original packing (mostly made at Breslau), which are stored away in the magazines. These find their way from Alexandria and Khartoom to this remote corner of traffic. The agents drank their spirits neat, and could not get it strong enough to please them; everybody else diluted it with two-thirds water or mixed it with merissa.

After a couple of days I took my departure from the huts of Gurfala, where a number of slave-dealers also have settled, and I made my way over a short two leagues towards the west to Doomookoo, the fifth of the Ghattas Seribas. The route was over a firm soil, alternately bushwood and open steppe. The grass on the rocky level seemed to have a permanent character. All of one kind, and covering large tracts of country, it reminded me of the waving ears of our own cornfields. Although the region seems to be destitute of any continuance of trees, it far surpasses the European plains and meadow lands in the variety of its permanent grasses.

At Doomookoo I found the negroes all astir; an equipment was being made for an expedition to Gebel Higgoo, and, with the co-operation of Aboo Guroon, was to consist of a hundred armed men. Mukhtar, the captain of the troop, repeatedly assured me that he could reach his destination in about five days, and I was much dis-

posed to accompany him. But there was in my way this obstacle, that I was obliged to get my correspondence off-hand; I had to write my letters for a whole year. The mountains Higgo and Shetatah have been so denominated for some cause by the Nubians; Higgo signifying a bandbox, and Shetatah being their name for cayenne pepper. They lie in a southerly direction from where we were, only a few leagues distant from that Mundo which is so often mentioned by Petherick; a spot which on every map is notoriously always pushed either backwards or forwards for several degrees, and originally, by those who professed to have visited it, was said to be situated on the Equator. The fact is, that Mundo is the name ordinarily given by the Bongo to a small tribe calling itself Babuckur, which has contrived to wedge in its position between the borders of the Bongo and the Niam-niam. On the eastern limit the Bongo denote the Niam-niam themselves by this name of Mundo. To the isolated hills of this border-land, such of the Bongo as could maintain their independence made good their retreat, and only in consequence of the contemplated expedition of the Khartoomers were they laid under tribute. During the present year the trading companies had established a number of settlements here amongst them, these advanced colonies being necessary for the security of the highways for traffic into the Niam-niam territory. Hitherto all the avenues for transit had been found liable to attack from the uncontrolled Bongo and from the Babuckur; but now the entire region was sequestered, and made a kind of preserve, on which the two companies could meet and monopolise their slave-plunder.

In one of the more extended low-lying steppes, overgrown with its mass of vegetation, I lost a whole day in vain endeavours to secure an antelope of that large breed which is found here, but which seems to elude all pursuit, in the course of the chase learning to discriminate a considerable number of species. One species, which was comparatively rare here, was the Bastard Gemsbock of the South African colonists (see p. 100), called "mahnya" by the Bongo; it is said to be the only antelope that, like a wild buffalo, will turn and assail a huntsman. Fate on this occasion was unpropitious. Manceuvre as I would, I could not sneak up close enough to get a shot. More than once I saw large herds of Leucotis, grazing apparently in entire repose; but every movement of mine was so dependent upon the formation of the ground, and every disturbance of the tall grass resulted in such a crackling, that to effect a surprise was out of the question. If ever I flattered myself that I

was gaining some advantage, and was getting close to the herd under cover of a detached bush, I was sure to be betrayed by the keen vision and disquietude of some stray beast that was hanging on the flank. Still greater were the obstacles that occurred if pursuit were tried in the drier tracts on the border of the lowlands. Here were seen whole troops of the Aboo Maaref (*A. nigra*), like great goats, with their sharp horns and flowing manes, proudly strutting on the plain; but, times without number, on the first alarm they bounded off. No avail that their black wrinkled horns were right before us, rising and sinking in the grass, offering a



CENTRAL AFRICAN BASTARD GEMSBOCK (*Antilope leucophaea*)

mark indeed somewhat indefinite; no good that we crept on, three at a time, one taking the wilderness, another the thicket, and the third, step by step, getting through the marshy hollows—everything was ineffectual: just as we thought we were getting an advantage, either some one would fall into a hole, or would shake a bough that hung over his head, or would disturb the crackling stalks in the bushes, and all hope was gone; the signal of danger was circulated, and the herd were out of reach. These details will furnish an idea of the endless artifices by means of which the chase in the rainy seasons has to be practised to ensure success. Wet

through, and with clothes saturated with the mire of the marshes, extremely weary, and having only succeeded in sending one poor Aboo Maaref hopping on three legs after its companions, we returned at the close of our day of unsuccessful sport.

The return to my headquarters from Doomookoo was a journey of about four and a half leagues. I found the way entertaining enough. Elevated dry flats of rocks came in turns with inundated lowlands; and after passing through pleasant woodlands the road would wind through open steppes. Game was everywhere most



THE MADOQUA.

abundant. It was only necessary to withdraw for an hour from a settlement to get an impression that the whole of the animal creation had ceased to give itself any concern about the proceedings of man.

There are two little antelopes which are here very common, and which roam about the country in pairs. One of these is the Hegoleh* (*A. madoqua*) which appears to be found right through

* The head of the Madoqua is represented as accurately as possible in the accompanying illustration.

from Abyssina to the Gambia ; the other is the Deloo (*A. grimmia*), which is known also in the south. They are both pretty bright-eyed creatures, of which the entire length is but little over three feet ; they correspond very nearly to a small roe, or the fawn of a fallow deer.

Both kinds are alike in never venturing into the low grounds exposed to floods, and in preferring the rocky lands which are covered with bushwood. They often get into the middle of a thicket, and startle the huntsman by suddenly springing out, in the way as the Om-digdig of Abyssinia (*A. Hemprichiana*). The flesh of both these antelopes is very indifferent for eating as compared



THE DELOO.

with the larger kinds ; that of the Deloo when roasted having a singular acrid flavour, which seems to suggest the unpleasantness of the glands.

Towards the end of August the sorghum-harvest commenced with the pulling of the light crop of the four-monthly sort, which had been sown in the latter part of April. But the general ingathering of the heavier varieties, which contribute chiefly to the supply of corn, did not take place until the beginning of December, after the rainy season was over. In Sennaar and Taka, sorghum requires five or six months to come to maturity, but in this district it rarely takes less than eight months. Both the early and late sorts commonly attain a height of nearly fifteen feet ; the stalks of the former remain quite green, but the reedy stems of the

latter become so strong and woody, that they are used for fences to divide one enclosure from another. The early varieties are scarcely inferior to the regular sugar-millet (*Sorghum saccharatum*) in producing an abundance of saccharine matter; these are known to the negroes as well as to the Arabians of the Soudan, who chew the straw and so express the juice. The Bongo and the Dyoor express the pulp by means of wooden mortars, and boil it till it has the consistency of syrup.

Both varieties of the common sorghum,* which here abound in all their minor differences of colour, shape, and size of grain, yield well-nigh a dozen different descriptions for the market at Khartoom. The most valuable of them is the Fatareetah, a pure white thin-skinned grain, which is also grown by the negroes in the Seribas.

I could not help being astonished at the length of time which most of the kinds take to ripen. In some fields a portion of the stubble is left intentionally ungrubbed until the next season; this will die down, but, after the first rain, it sprouts again from the root, and so a second gathering is made from the same stem. No loosening of the soil is ever made, and this perhaps accounts in a degree for the tardiness of the growth. With the small spades, of which I have already spoken, shallow holes are sunk in the ground at intervals of about a yard: into these is dropped the corn, which then is trodden down by the foot. It is only during the first few months that any labour at all is given to the fields, just to remove from the surface of the soil the multitudes of weeds which will spring up. These weeds are gathered into heaps, and form the only manure which is employed in this lavish laboratory of nature. Never more than once is this weeding repeated; it is done by the

* In all descriptions of sorghum, as given by travellers, there seems to be a considerable confusion with respect to the distinctive names of this ordinary cereal. It is called promiscuously "Kaffir-corn," "negro-cane," "bushel-maize," "Moorish-mille," or sometimes "durra." Durra is an Arabic definition, which can be traced in literature as far as the tenth century. The etymology of the Italian word *sorgho* is altogether uncertain. The Germans in the South Tyrol, who are very limited in their acquaintance with cultivated cereals, call it, in their Germanised way, "Sirch," whilst the Slavonians corrupt it further into "Sirek." In Egypt this sorghum is called *Lurra belladi*, "durra of the country," to distinguish it from maize, which is known as *Durra Shahmi*, or "Syrian durra." In Syria itself, where the sorghum is little known, because rarely cultivated, it is simply called "durra." Throughout the Soudan it has exclusively the appellation of *Aish*, i.e. "bread."

women and children ; and the corn is then left entirely to take its chance until it is time to gather it. On account alike of its tall growth and of its luxuriant habit, the men are careful not to plant it too thickly. The country does not offer many materials for manuring the land ; if, therefore, greater application of labour or of skill should succeed in doubling the yield of every stem, there would ultimately be no gain. The soil, which already in many places fails after the second year, would only be exhausted so much the sooner.

In my garden I made several attempts to sow wheat, but without much success.

Very unwisely, not one of the Seriba governors has ever made an attempt to introduce into the district the culture of rice, for which the low marshy fields, otherwise useless, seem very admirably adapted. On the contrary, the expeditions which have set out from Zanzibar, and which have explored districts where the climate is not dissimilar to that of which we speak, have introduced the cultivation of rice over a very considerable area. The finger of nature itself seems to point out the propriety of not neglecting this product ; in the whole district south of the Gazelle the wild rice of Senegal grows quite freely, and this I always found of a better quality than the best kinds of Damietta. During the rains the wild rice (*Oryza punctata*) environs many a pool with its garland of reddish ears, and seems to thrive exceedingly well.

There yet remain three kinds of corn to which a passing reference should be made in order to complete a general survey of the agriculture of this district.

Next to the sorghum stands the penicillaria, or Arabian "dokhn," to which much attention is devoted, and which is cultivated here much more freely than in the northern Soudan. Sown somewhat later than the sorghum, somewhat later it comes to maturity.

A second substitute on the land for sorghum is a meagre grain, the *Eleusine coracana*. By the Arabians it is called telaboon, and by the Abyssinians tocusso ; it is only grown on the poorest soils and where the ground is too wet to admit of any better crop. The grain of this is very small and generally black, and is protected by a hard thick skin ; it has a disagreeable taste, and makes only a wretched sort of pap. It yields a yeast that is more fit for brewing than for baking ; in fact, not only the Niam-niam, who are the principal growers of the Eleusine, but the Abyssinians as well, make a regular beer by means of it.

Midway between the sorghum and the penicillaria must be reckoned the maize of the country, which only grows in moderate quantity, and is here generally cultivated as a garden vegetable in the immediate proximity of the huts. The Madi tribe of the Mittoo are the only people who seem to cultivate it to any great extent.

There is one quality which pertains equally to all these varieties of grain which are grown in these torrid regions ; it is not possible from the flour which they provide to make bread in the way to which we are accustomed. All that can be made from the fermented dough is the Arabian bread, "kissere," as it is called—tough, leathery slices, cooked like pancakes on a frying-pan.

Next, after the various sorts of corn, the leguminous plants play an important part amongst this agricultural population. Cultivated frequently alike by the Dinka and Dyoor is the catyang (*Vigna sinensis*), which is grown by the Shillooks more plentifully than by either ; but the Bongo have a great preference for the mungo-bean (*Phaseolus Mungo*), which they call "bokwa." Wild representatives of both these classes of beans are almost universal throughout Africa, and demonstrate that they are indigenous to the soil. The best of all the beans is the *Phaseolus lunatus*, which is found of various colours, white, brown, or yellow, and which in shape is like our own, although the pod is very short, and rarely contains more than two seeds. This is grown very freely by the Mittoo and the Madi, but the Bongo and the Dinka also give it their attention.

There are two kinds of these leguminous plants which are cultivated very extensively, and which fructify below the soil, that is, as the pods ripen the peduncles bend down and sink beneath the ground. These are the speckled pea-shaped *Voandzeia* and the *Arachis*, or earth-nut. Dispersed now everywhere over the tropics, the proper home of these is in Africa. The first is cultivated most of all by the Bongo ; the single seed which its pod contains is mealy, but cooking does not soften it, and it is consequently very indigestible.

The earth-nut, on the contrary, is of an oily nature, and is seldom wanting amongst any of the tribes.

Another oily vegetable product of the country is the *Hyptis spicigera*, which the Bongo named "kendee." Once sown among cultivated plants it becomes a sort of half-wild growth, and establishes itself as an important shrub between the stubble. The Bongo

and Niam-niam especially store large quantities of it. The tiny seeds, like those of a poppy-head, are brayed to a pulp, and are used by the natives as an adjunct to their stews and gravies, the taste and appearance being very similar to the hemp-pap of the Lithuanians.

A very subordinate place is occupied in the cultural pursuits of these people by any of the tuberous vegetables. Various kinds of yams (*Dioscorea alata*, and *D.* or *Helmia bulbifera*) are found in the enclosures of the Bongo and of the Dinka, and are here and

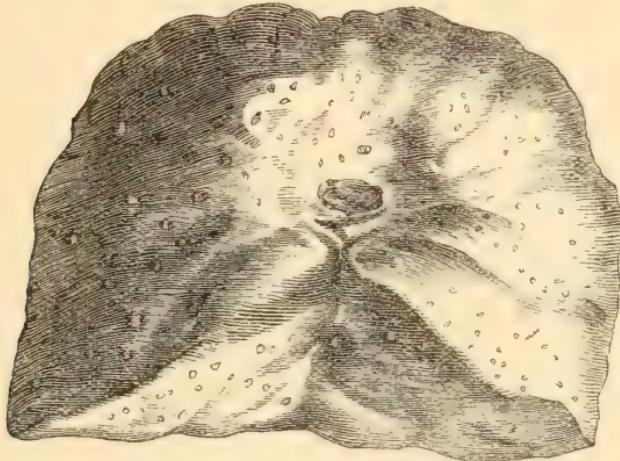


CENTRAL AFRICAN YAM.

there cultivated in some measure like the maize, under the eye of the proprietor. The Niam-niam and the Monbutto, who devote more attention to the growth of tubers than of cereals, have a greater preference for the sweet potato (*Batatas*), the manioc, and the colocasia, and other bulbs, which to the northern people are unknown. All the yams in these parts seem to exhibit the same form, which may be reckoned the most perfect in this production, lavished by bountiful Nature on man with so little labour on his part. The tubers of the Central African species are very long; at their lower extremity they have a number of thick protuberances, and are similar to a human foot, or rather (taking their size into account) to the great foot of an elephant. Some were brought to me which varied in weight from 50 to 80 lbs. The substance of the tuber, which is easily cooked, is light, mealy, and somewhat granulated; it is more loose in texture than our tenderest potatoes, and decidedly preferable to them in flavour.

The Nyitti (*Helmia bulbifera*), which are protruded from the axils of every leaf on the climbing sprouts, are in shape like a great Brazil-nut—a section of a sphere with a sharp edge. In their

properties they correspond much with our potato, particularly as regards their taste and their bulk ; but they never develop themselves into such mealy masses as the ordinary yams. Their skin is remarkably like potato-peel, and altogether their colour, sometimes yellow, sometimes a thoroughly purple-brown, adds to the resemblance. Very frequently these plants grow wild, but in that condition the tubers are quite small, and have a taste so pungent that they are said by the natives to be full of a dangerous poison. To a kindred species which is found wild, and which produces a horn-shaped tuber, we shall have to allude hereafter.



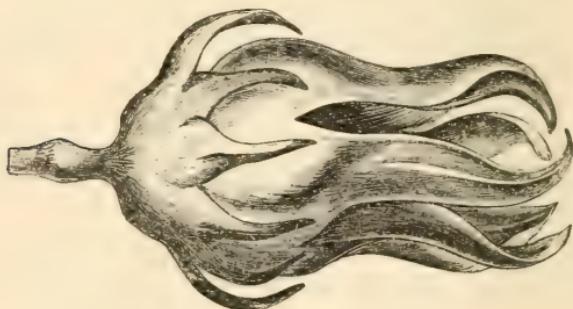
THE NYITTI.

Just before the sorghum-harvest commenced, the gourds were ripening, and came on as a welcome boon to the natives, who at this season were suffering from the usual scarcity. They devoured incredible quantities of them, and I saw whole caravans of bearers literally fed upon them. Of the ordinary gourds (*Cucurbita maxima*) there are two kinds, the yellow and white, which succeed excellently and attain a prodigious size. There is a kind of melon with a hard woody rind, which the Dyoor and the Dinka cultivate : when half-ripe, they cook and enjoy it as a palatable vegetable ; it is generally of a cylindrical form, and about a foot in length. As it grows it assumes the diverse shape of the *Cucumis Chate*, the cooking-cucumber of the Egyptians, which they call “adyoor” and “abdallowy ;” by its wild shapes it seems to reveal an African origin. The leaves of the gourds are boiled just like

cabbages, and are used as a vegetable. The bottle-gourds do not grow anywhere here actually without cultivation, but in a sort of semi-cultivation they are found close to all the huts. From the edible kinds are made vessels, which are quite secure.

As actual vegetables the Bongo cultivate only the bamia or waka of the Arabians (*Hibiscus esculentus*) and the sabdarifa. The calyx of the latter is very large, varying in colour from a pale flesh to a dark purple, and is used as a substitute for vinegar at meals. The bamia here is a larger variety of the Oriental vegetable; its seed-vessels are gathered before they are ripe, and boiled.

Altogether unknown throughout the population of pagan negroes is the onion, which appears to have its southern limit in Kordofan and Darfoor. The equatorial climate seems to render its growth very difficult, and do what the Nubians will, they are unable



CALYX OF THE HIBISCUS SABDARIFA.

successfully to introduce this serviceable vegetable into the districts of their Seribas. The tomato may well be considered as a cosmopolite, making itself at home in all warmer latitudes, but previously to my arrival it had not found its way into this region.

For the sake of its fibres the *Hibiscus cannabinus* is very generally cultivated here, as it is in the Nile Valley; but I observed that the Bongo have another plant, the crotalaria, an improvement upon the wild sort (*C. intermedia*), from which they make excellent string.

Compared with Africa in general, this district seemed very deficient in the growth of those spices which serve as stimulants to give a relish and variety to dishes at meals. Red cayenne pepper, for instance, is swallowed by Abyssinians and Nubians in incredible quantities in their soups, but the Bongo regard it as little better

than absolute poison. Although the first comers found the indigenous pimento growing in all the enclosures, yet the Bongo reckoned it as so dangerous that they carefully kept it in guarded spots, so that their children might not be victims to the deleterious effects of its bright red berries. The natives had been accustomed to poison their arrows with pimento, and when they witnessed the Nubians come and gather up the suspected berries and throw them into their food, their astonishment was unbounded ; they came at once to the conclusion that it was utterly useless to contend with a people that could gulp down poison by the spoonful, and accordingly they submitted unconditionally to the intruders.

Of all the plants which are cultivated by these wild people, none raises a greater interest than tobacco, none exhibits a more curious conformity of habit amongst peoples far remote. The same two kinds which are cultivated amongst ourselves have become most generally recognised. These kinds are the Virginian tobacco (*Nicotiana tabacum*) and the common tobacco (*N. rustica*). It is little short of a certainty that the Virginian tobacco has only made its way into the Old World within the few centuries since the discovery of America. No production more than this has trampled over every obstacle to its propagation, so that it has been kept to no limits ; and it must be matter of surprise that even Africa (notorious as it has ever been for excluding every sort of novelty in the way of cultivation) should have allowed the Virginian tobacco to penetrate to its very centre.

It is a great indication of the foreign origin of this plant that there is not a tribe from the Niger to the Nile which has a native word of their own to denote it. Throughout all the districts over which I travelled, the Niam-niam formed the solitary exception to this by naming the Virginian tobacco "gundeh;" but the Monbuttoo, who grow only this one kind and are as little familiar with *N. rustica* as the Niam-niam, call it "Eh-tobboo." The rest of the people ring every kind of change upon the root word, and call it "tab, tabba, tabdeet," or "tom."

Quite an open question I think it is, whether the *N. rustica* is of American origin. Several of the tribes had their own names for it. Here amongst the Bongo, in distinction from the "tabba," it is known as "masheer." The growth it makes is less than in Europe, but it is distinguished by the extreme strength and by the intense narcotic qualities which it possesses. It is different in this respect from what is grown in Persia, where it is used for the narghileh or

water-pipes, and whence there is a large export of it, because of its mildness and aromatic qualities. Barth* has given his opinion that the tobacco is a native of Logane (Mosgoo). At all events, the people of Africa have far surpassed every other people in inventing various contrivances for smoking, rising from the very simplest apparatus to the most elaborate; and thus the conjecture is tenable, that they probably favoured the propagation of the foreign growth, because smoking, either of the common tobacco (*N. rustica*) or of some other aromatic weed, had in some way already been a practice amongst them. To such a hypothesis might be opposed the important fact that on all the monuments of the ancient Egyptians that afford us so clear an insight into the details of their domestic life, there has never been found a written inscription or pictorial representation that could possibly afford a proof that such a custom was known to exist. In conclusion, it deserves to be mentioned that the pagan negroes, as far as they have remained uninfluenced by Islamism, smoke the tobacco, whilst those who have embraced Mohammedanism prefer the chewing of the leaf to the enjoyment of a pipe.

Vol. iii., p. 215.

CHAPTER IV.

THE BONGO: Area, boundaries, and population of Bongoland—Subjection to the Khartoomers—Decrease of population by slave-trade—Red tinge of skin—Width of skull—Small growth of hair—No aridity in climate—Wild tubers as food—Goats and dogs—Hunting-weapons—Villages and huts—Smelting-furnaces—Money—Weapons for display—Wood-carving—Penates—Musical instruments—Character of music—Corpulence of the women—Hottentot Venus—Mutilation of teeth—Disfigurement of lips—Arrow-poisoning—National games—Marriage premiums—National morality—Disposal of dead—Memorial erections—Loma, good and evil luck—Fear of ghosts—Belief in witches—Mis-trust of spirits—Modes of healing—Language—Unity of people of Central Africa—Extermination of the Bongo.

I PURPOSE in this chapter to describe a people which, though visibly on the decline, may still by its peculiarity and striking independence in nationality, language, and customs, be selected from amid the circle of its neighbours as a genuine type of African life. Belonging to the past as much as to the present, without constitution, history, or definite traditions, it is passing away, like deeds forgotten by the lapse of time, and is becoming as a drop in the vast sea of the Central African races. But just as a biographer, by depicting the passions, failings, and virtues of a few individuals, may exhibit a representation of an entire epoch in history, so we may turn with interest to scenes which have been enacted in this limited district of the great and mysterious continent, sure of finding much edifying matter in the course of our investigations. Like the rain-drop which feeds the flowing river and goes its way to replenish the mighty ocean, every separate people, however small, has its share in the changes which supervene in the progress of nations; there is not one which is without an abstract bearing on the condition of primitive Africa, and which may not aid us in an intelligent survey of any perspective that may be opened into its still dark interior.

To the antiquary, within whose province the description may lie in a degree, the material that is offered must be indisputably

attractive. A people, as long as they are on the lowest step of their development, are far better characterised by their industrial products than they are either by their habits, which may be purely local, or by their own representations, which (rendered in their rude and unformed language) are often incorrectly interpreted by ourselves. If we possessed more of these tokens, we should be in a position to comprehend better than we do the primitive condition of many a nation that has now reached a high degree of culture.

Of all the natives with whom I had intercourse in my wanderings, the majority of those who acted as my bearers, and amongst whom I most frequently sojourned, were the Bongo. It was in their territory that I spent the greater part of my time in the interior; and thus it happened that I became intimate with many particulars of their life, was initiated into all their habits, and even to a certain extent mastered their dialect.*

The present country of the Bongo lies between lat. 6° and 8° N. on the south-western boundary of the depression of the Bahr-el-Ghazal basin, and on the lowest of the terraces where the southern slopes appear to make a transition from the elevated ferruginous crust to the unfathomed alluvial flats which are traversed by all the affluents of the river. In the extent of its area the land covers about the same surface as Belgium, but with regard to population, it might be more aptly compared to the plains of Siberia or the northern parts of Norway and Sweden; it is a deserted wilderness, averaging only 11 or 12 people to the square mile. The country extends from the Roah to the Pango, and embraces the middle course of nearly all the affluents of the Gazelle; it is 175 miles long by 50 miles broad, but towards the north-west the breadth diminishes to about 40 miles. On the north it is only divided by the small Dyoor country from that of the Dinka, which, however, it directly joins upon the north-east. The south-east boundary is the Mittoo territory on the Roah; and that on the west is the country of the Golo and Sehre on the Pango. The eastern branch of the extensive Niam-niam lands joins the Bongo on the south; whilst, wedged between and straitly pressed, the Bellanda and the Babuckur have their settlements.

When, in 1856, the Khartoomers first set foot in Bongoland, they found the entire country divided into a number of independent

* *Vide 'Linguistische Ergebnisse einer Reise nach Central Afrika,'* by Dr. G. Schweinfurth. Berlin: Wiegand and Hempel, 1873. Also, 'Zeitschrift der Deutschen Morgenländischen Gesellschaft,' xxvii. 461-487.

districts, all in the usual anarchy of petty African communities ; there was nothing anywhere like an organised commonwealth such as may be found amongst the Dinka, where entire districts unite and form an imposing and warlike tribe. Every village simply had its chief, who, in virtue of superior wealth, exercised a certain authority over the rest of the inhabitants, and who, in some cases, had an additional *prestige* from his skill in the art of magic. The Nubians, consequently, never had to contend against the unanimous hostility of a powerful or well-disciplined people, and only in a few isolated places had to encounter much resolute opposition. Their soldiers, by the tenor of their religion, not only conceived themselves justified in perpetrating every sort of outrage upon heathen unbelievers, but they were taught to consider their acts of violence as meritorious in the sight of God : it was, therefore, an easy matter for them to fall upon the weak authorities of the country, and in the space of a few years to apportion the entire territory amongst the few ivory merchants in Khartoom, whose spirit of enterprise, suddenly kindled by the exaggerated reports of the profits secured on the Upper Nile by Europeans, the first explorers, had developed itself into a remarkable activity.

The natives were without difficulty reduced to a condition of vassalage, and, in order that they might be under the close supervision and at the service of their oppressors, they were compelled to quit their homes, and to reside near the Seribas that were established in various parts of the land. By the application of this sort of feudal system, the trading companies brought about the realisation of their project for a permanent occupation of the country. Shut in by the Niam-niam on the south and by the Dinka on the north, Bongoland offered a twofold advantage for the establishment of headquarters for the expeditions : in the first place, it was in close proximity to the Mesheras, or landing-places ; and, secondly, by its advanced position towards the interior, it afforded most ample opportunities for setting in operation the contemplated excursions to the prolific ivory districts of the south. The Dinka, hostile and intractable from the first, had never given the intruders the smallest chance of settling amongst them ; while the Bongo, docile and yielding, and addicted almost exclusively to agriculture, had, on the other hand, contributed in no slight measure to maintain the Seribas. If ever, now and again, they had been roused to offer anything like a warlike opposition, they had only too soon succumbed to the motto of the conquerors, “Divide, et impera.”

The Dyoor, the Golo, the Mittoo, and other smaller tribes, shared the fate of the Bongo, and in the short space of ten years a series of more than eighty Seribas had arisen between the Rohl and the Beery. Scarcely half the population escaped slavery, and that only by emigrating ; a portion took refuge amongst the Dinka on the north, and others withdrew southwards to the Niam-niam frontiers, where the isolated mountains enabled them to hold out for a while. The Khartoomers, however, were not long in pursuing them, and gradually displaced them even from this position.

During the early years of their occupation, the Nubians beyond a question treated the country most shamefully ; there are traces still existing which demonstrate that large villages and extensive plots of cultivated land formerly occupied the scene where now all is desolation. Boys and girls were carried off by thousands as slaves to distant lands ; and the Nubians, like the *parvenu* who looks upon his newly-acquired wealth as inexhaustible, regarded the territory as being permanently productive ; they revelled like monkeys in the durra-fields of Taka and Gedaref. In course of time they came to know that the enduring value of the possessions which they had gained depended mainly on the physical force at their disposal ; they began to understand how they must look to the hands of the natives for the cultivation of their corn, and to their legs for the transport of their merchandise. Meanwhile, altogether, the population must have diminished by at least two-thirds. According to a careful estimate that I made of the numbers of huts in the villages around the Seribas and the numbers of bearers levied in the several districts, I found that the population could not at most be reckoned at more than 100,000, scattered over an area of nearly 9000 square miles.

On first landing from the rivers, the Khartoomers opened up an intercourse with the Dinka, who did not refuse to furnish them with bearers and interpreters for their further progress into the interior, and it was from them that they learnt the names of the different tribes. In Central Africa every nation has a designation for its neighbours different to that by which they are known among themselves ; and it is the same with the rivers, which have as many names as the nations through whose territory they flow. In this way the Nubians have adopted the Dinka appellations of Dyoor for Lwoh, Niam-niam for Zandey, and Dohr for Bongo. This last people always style themselves Bongo, and the Khartoomers, since they have made their headquarters in their territory, have discarded

the Dinka name of Dohr, and now always use the native term Bongo. According to the Arabic form of expression, the plural of Dohr is Derahn, and of Niam-niam it is Niamahniam.

The complexion of the Bongo in colour is not dissimilar to the red-brown soil upon which they reside ; the Dinka, on the other hand, are black as their own native alluvium. The circumstance is suggestive of Darwin's theory of "protective resemblance" among animals ; and although in this instance it may be purely accidental, yet it appears to be worthy of notice. Any traveller who has followed the course of the main sources of the White Nile into the heathen negro countries, and who has hitherto made acquaintance only with Shillooks, Nueir, and Dinka, will, on coming amongst the Bongo, at once recognise the commencement of a new series of races extending far onwards to the south. As trees and plants are the children of the soil from which they spring, so here does the human species appear to adapt itself in external aspect to the red ferruginous rock which prevails around. The jet-black Shillooks, Nueir, and Dinka, natives of the dark alluvial flats, stand out in marked distinction to the dwellers upon the iron-red rocks, who (notwithstanding their diversity in dialect, in habit, or in mode of life) present the characteristics of a connected whole. Of this series the tribes which must be accounted the most important are the Bongo, the Mittoo, the Niam-niam, and the Kredy, all of which are equally remarkable for their entire indifference to cattle-breeding. The whole of these, especially the women, are distinguished for the reddish hue of their skin, which in many cases is almost copper-coloured. It cannot be denied that this red-brown complexion is never entirely wanting, even amongst the darkest skins that are found in the lowlands ; but the difference between their complexion and what is ordinarily observed among the Bongo is only to be illustrated by the contrast in colour between a camellia-leaf in its natural condition and after its epidermis has been removed.

Although amongst every race the tint of the complexion is sure to deviate into considerable varieties of shade, yet, from a broad estimate, it may be asserted that the general tint remains unaltered, and that what may be denominated the "ground tint" constitutes a distinctive mark between race and race. Gustav Fritsch, in his work upon the people of Southern Africa, has bestowed great attention upon this subject, and by means of an ingenious table, arranged according to the intensity of various shades of colour, has

very perspicuously explained the characteristics of the Kassirs, Hottentots, and Bochjesmen.

Like the Niam-niam, Mittoo, and Kredy, the Bongo rarely exceed a medium height. They differ, however, in several respects from the Dinka and other people of the lowland plains. Their prominent characteristics appeared to me to consist in a more compact form of limb, a sharper development of muscle, a wider formation of the skull, and generally a preponderating mass in the upper part of the body. Of 83 men that I measured I did not find one who had attained a height of 6 ft. 1 in., whilst the average height did not appear to me to be more than 5 ft. 7 in. Dinka and Bongo alike afforded very striking samples of the two great series of races which they severally represented, and each displayed the principal characteristics of their particular race in their stature, their complexion, and their form of skull. Of many of the Bongo that I measured, I should pronounce that they would require to be classified as hardly removed from the lowest grade of the Brachycephalæ. They appear themselves to be aware of this characteristic. I remember a discussion that once arose about a little boy, too young to speak, as to whether he was a Dinka or a Bongo. One of the interpreters, after minute examination of the proportions of the child's head, came to an immediate, but decided, opinion that the boy was a Bongo, and in answer to my inquiry as to the grounds on which he so confidently based his decision, he explained that he judged from the fact that the head was broad.

The hair of the Bongo offers no peculiarity, either with regard to its culture or its growth, that can be deemed of any special interest; it is short and curly; moreover, it is of that woolly nature at which, in default of anything better, the theorist who propounds the doctrine of the independent and yet of the mutual connection of the heathen races eagerly clutches. Corresponding to the numerous gradations in complexion and formation of the skull are the varieties in the growth of the hair. Hair which is thick and frizzly is common amongst every race that has hitherto been discovered on African soil, and although there are a few unimportant exceptions among the Arab tribes (the Sheigieh) who have settled in Nubia, and notwithstanding that the hair of the Ethiopians, as well as that of the North African people may be termed curly more appropriately than woolly, yet straight hair is nowhere so be found. The real distinctions, therefore, in the growth of the hair in the nations of Central Africa consist in the colour and length, which vary con-

siderably in the different races; beards predominate with some, whilst with others they fail entirely. In common with most other people of the red soil, the Bongo have hair which is perfectly black, but in its length it is very different from that of the Niam-niam. On the Niam-niam frontiers the Bongo have often tried to imitate their neighbours by twisting and plaiting their hair, but their attempts have been always a failure. Whiskers, beards, and moustaches are cultivated in very rare cases, but the hair never grows to a length much exceeding half-an-inch.

Bongoland is traversed from south to north by five important tributaries of the Gazelle, viz: the Roah, the Tondy, the Dyoor, the Wow, and the Pango. With these are associated a number of smaller rivulets which are not permanent streams; nevertheless, from the pools which remain in their beds throughout the dry season, they furnish a sufficient supply of moisture to maintain the vegetation of the country. Water for drinking never fails, although from November to the end of March a fall of rain is quite exceptional. In cases of necessity, water can always be procured without much time or trouble from those pools which survive the periodical watercourses in the marshes. Dearth, as a consequence of prolonged drought, appears to be quite unknown; certainly it has not occurred for the last ten years. The crops are far more frequently injured by superabundant moisture than by drought.

The Bongo are essentially an agricultural people. With the exception of some occasional hunting and some intermittent periods devoted to fishing, they depend entirely upon the produce of the soil for their subsistence. Their cultivated plants have already been noticed in a previous chapter. To agriculture men and women alike apply themselves, devoting their greatest attention to the culture of their sorghum. The seed is sown broadcast into trenches which have been carefully prepared for its reception, and when it has germinated and made its appearance above the ground, two or three weeks are spent in thinning the shoots and in transplanting them away from the spots where they are too thick; a system which experience has shown can very advantageously be applied to maize.

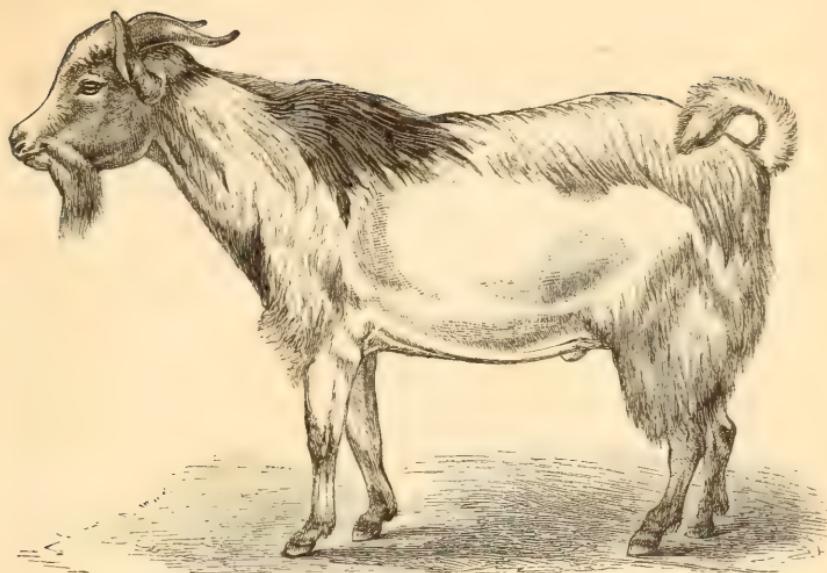
But it is not alone upon their cultivated crops that the Bongo depend for their means of subsistence; they consume large quantities of the vegetables, fruits, roots, bulbs, tubers, and funguses that grow wild about the country, and consequently suffer less from a bad harvest or a scarcity of provision than any of their neighbours.

Already it has been mentioned that there is an entire deficiency of common salt throughout the district of the Gazelle. The alkali that is everywhere its substitute is obtained by soaking the ashes of the burnt wood of the *Grewia mollis*, a shrub common throughout Bongoland, and which is notoriously useful in another way by the quantity of bast which it produces.

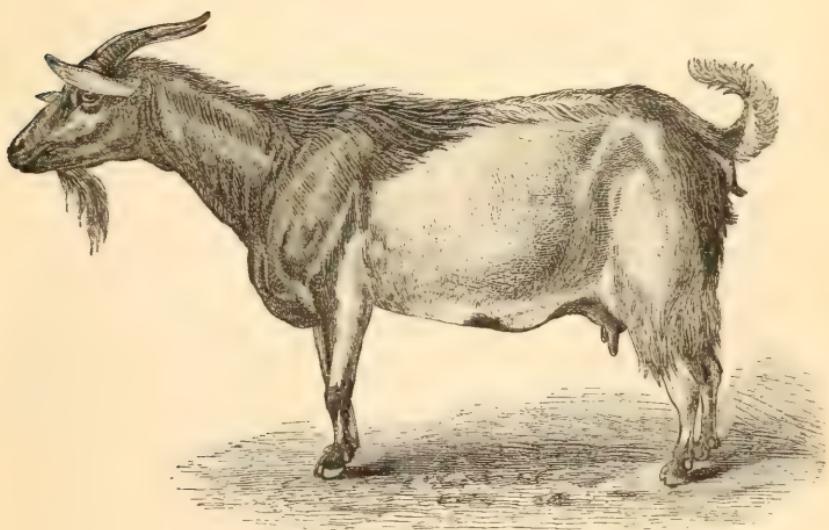
Tobacco is indispensable to the Bongo, and is universally cultivated. The species known as Mashirr (*Nicotiana rustica*) is very pungent; its small thick leaves are pounded in a mortar, and are subsequently pressed and dried in moulds. From the cakes thus formed, the natives break off fragments as they require them, grind them into powder by means of stones, and smoke the preparation in long pipes that have very pretty clay bowls. They are addicted to smoking quite as much as many of the nations that live in the polar regions, and are not content till they are utterly stupefied by its effects.

The Bongo fashion of smoking is more disgusting than that which has already been described as prevalent amongst the Dinka. In the same manner as with them, the pipe is passed from hand to hand, but the lump of bast that intercepts the pungent oil is not placed in the receptacle of the stem, but is put in the mouth of the smoker, and together with the pipe is passed from one person to another. The habit of chewing tobacco is adopted as much by the Bongo as the Mohammedan inhabitants of Nubia; but the custom is so universal that there would seem to be ample justification for the belief that it is indigenous rather than what has been acquired from foreigners. The practice in which the Bongo indulges of placing his tobacco quid behind his ear is very repulsive.

It is to their indifference to cattle-breeding, which is practised so extensively by the Dinka, that the Bongo owe their comparatively peaceful relations with the so-called "Turks." It is to the same cause that the latter are indebted for the sluggish measure of opposition shown them by their vassals. The domestic animals of the Bongo are poultry, dogs, and goats; sheep being almost as rare as cattle. The goats are unlike those of the Dinka, but are of a breed quite common throughout these regions of Central Africa. Not only did I see them amongst the Mittoo and Madi, but likewise among the Babuckur, and even in the country of the Monbutto, whither they had been brought by the equatorial nations whom the Monbutto simply style the "Momvoo." These goats, like the Dinka sheep, are distinguished by a hairy appendage from the



BONGO GOAT.



SHORT-BODIED BONGO GOAT.

breast and shoulders, and by a short stiff mane, which runs right along the ridge of the back to the small erect tail. The ordinary colour of these pretty animals is a light fawn or chamois-brown, the mane being very dark. I occasionally found the Bongo in possession of another breed which I met with nowhere else, and which is probably merely a cross with the Dinka goat. It has a remarkably short and plump body, and is generally of a pepper-and-salt colour.

The Bongo dogs, with regard to size, are between the small Niam-niam race and the Dinka breed, which corresponds more nearly to the common pariah of Egypt. On account of the indiscriminate crossing of the races, a dog of pure Bongo breed is somewhat rare; its chief characteristics are a reddish tan colour, short erect ears, and a bushy tail like a fox's brush. Their greatest peculiarity appeared to me to be the bristling of their hair, which at every provocation stands up along the back and neck like that of an angry cat. The bushiness of the tail distinguishes the breed from the smooth-tailed Dinka dog, and from that of the Niam-niam, of which the tails are as curly as pigs'.

Although the Bongo are not over choice in their food, they persistently abstain from eating dog's flesh, a practice to which their southern and south-eastern neighbours are notoriously addicted; in fact, they show as much abhorrence at the idea as they would at devouring human flesh itself. They have a curious superstition about dead dogs. I was about to bury one of my dogs that had recently died, and some of the men came and implored me to desist from my intention, since the result would assuredly be that no rain would fall upon their seeds. For this reason all the Bongo simply throw their dead dogs out into the open fields.

At some seasons, especially at the end of the rainy months, fishing and hunting offer productive sources for obtaining the means of subsistence. Hunting is sometimes practised by separate individuals; but at other times it takes the form of an extensive *battue*, in which the men belonging to a whole district will combine to take a share. Occasionally, too, a rich booty is obtained from the trenches and snares. Nets are used in all the *battues* for game, and the Bongo devote as much attention to the construction of these nets as they do the weaving of their fish-snares and basket-pots. Their fishery is principally limited to the winter months.

Elephant-hunting has for the last twelve years been among the

things of the past. It is only the oldest of the men—and here the number of the men that are really old is very small—who appear to have any distinct recollection of it at all. The huge lance-heads, which are now only *armes de luxe* in the possession of the wealthy, or upon some rare occasions are used for buffalo-hunting, are the sole memorials of the abundance of ivory of which Petherick, as an eye-witness, has given so striking a description. The snares by which the Bongo succeed in catching the smaller kinds of game generally consist of the stem of a tree balanced horizontally by means of ropes.* A spot which the game is known to haunt is selected for the erection of these snares; a hedge, or some sort of enclosure, is set up on each side of the tree so that the game may be obliged to run underneath; it is arranged so that the animals as they pass tread upon a kind of noose or slip-knot which slackens the ropes by which the tree is suspended, and the falling weight crushes and kills the game below.

Hunting on a minor scale is a very favourite recreation, and the children find a daily amusement in catching rats and field-mice.

With the exception of human flesh and the flesh of dogs, the Bongo seem to consider all animal substance fit for eating, in whatever condition it may be found. The putrefying remnant of a lion's feast, which lies in the obscurity of a forest and is only revealed by the kites and vultures circling in the air above, is to them a welcome discovery. That meat is "high" is a guarantee for its being tender, and they deem it in that condition not only more strengthening than when it is fresh, but likewise more easy of digestion. There is, however, no accounting for taste, certainly not with the Bongo, who do not recoil from the most revolting of food. Whenever my cattle were slaughtered, I always saw my bearers eagerly contending for the half-digested contents of the stomach, like the Esquimaux, whose only ideas of vegetables appear to be what they obtain from the contents of the paunches of their reindeers; and I have seen the Bongo calmly strip off the disgusting *amphistoma*-worms which literally line the stomachs of all the cattle of this region, and put them into their mouths by handfuls. After that, it was not a matter of surprise to me to find that the Bongo reckons as game everything that creeps or crawls, from rats and mice to snakes, and that he is not particular what he eats, from

* An illustration of this contrivance appears in Petherick's 'Travels in Central Africa,' vol. i. p. 255.

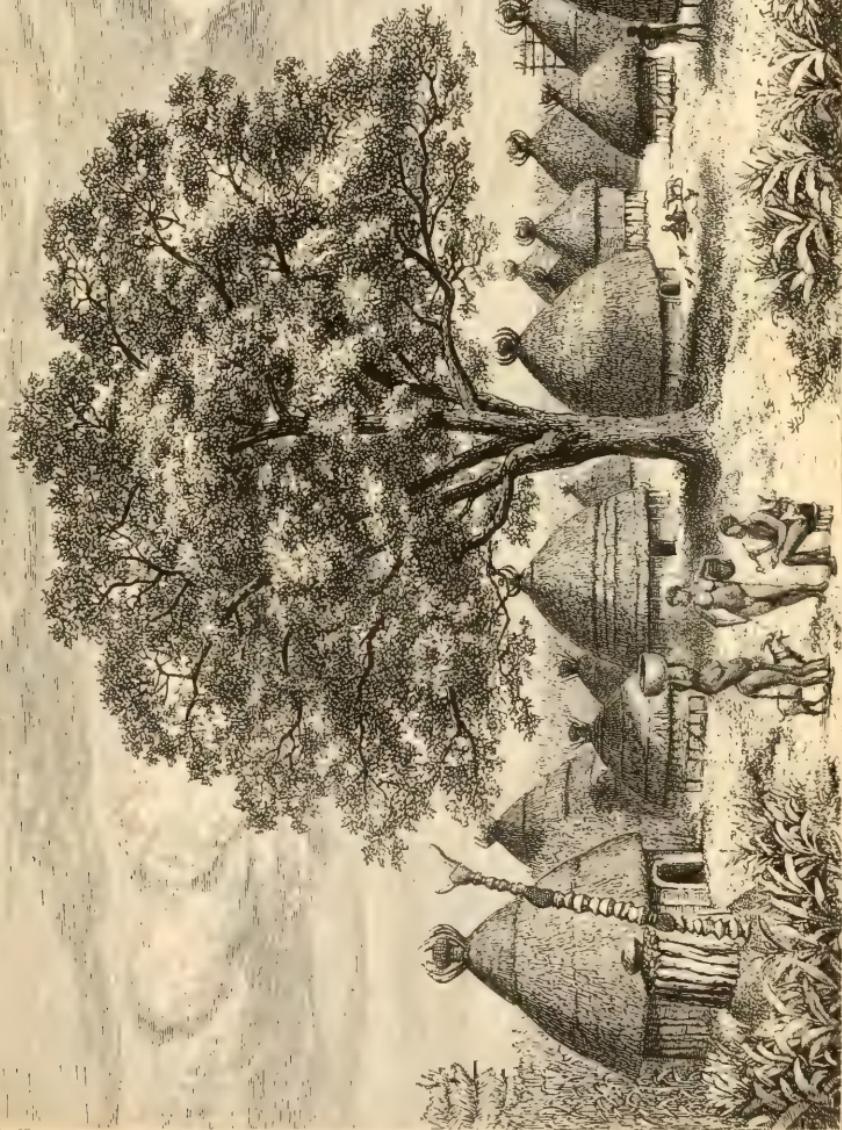
the carrion vulture to the mangy hyena, or from the fat earth-scorpions (*Heterometrus palmatus*) to the caterpillars of the winged termites with their oily beetle-like bodies.

Having thus dilated with more minuteness than elsewhere upon the external features of Bongo life, such as their agriculture, hunting, and fishing, I may proceed to call attention to those arts by which, even in this low grade of development, man seeks to ameliorate and embellish his existence.

First of all, the dwelling-place may demand our notice, that which binds every man more or less to the soil which affords him his subsistence—that family nucleus, from which the wide-branching tree of human society has derived its origin.

In the period when the Khartoomers first made their way into the country, the Bongo, quite unlike the other tribes, inhabited extensive villages, which, similar to the present Seribas, were encompassed by a palisade. Neither towns nor villages are now to be seen, and the districts which are occupied at all are only marked by scattered enclosures and little gatherings of huts, as in the country of the Dinka and the Niam-niam. Very rarely are more than five or six families resident in the same locality, so that it is almost an exaggeration to speak of their being villages in any sense. The communities in past times seem to have had a preference for gathering round some great tamarind, ficus, or butter-tree, which often still survives and constitutes the only relic of habitations which have long fallen to decay; and even to the present time the Bongo appear to retain this partiality, and more often than not they may be found beneath the natural shade of a spreading roof of foliage, enjoying the light and space which are prohibited to their cramped and narrow dwellings. The ground for a considerable circuit about the huts is well cleared and levelled, its surface being the general scene of labour on which all the women perform their ordinary domestic duties. The corn is there threshed and winnowed; there it is brayed in the wooden mortars or pounded by the mill; there are the leaves of the tobacco-plant laid out to dry; there stand the baskets with the loads of mushrooms or supply of fruit; and there may be seen the accumulated store of nutritious roots. Dogs and poultry alike seem to revel in security under the majestic covering, while the little children at their play complete the idyllic picture of life in Central Africa.

Upon the erection of their dwellings there are no people in the Gazelle district who bestow so much pains as the Bongo. Although



they invariably adopt the conical shape, they allow themselves considerable diversity in the forms they use. The general plan of their architecture has already been sketched.

The diameter of the dwellings rarely exceeds twenty feet, the height generally being about the same. The entrance consists of a hole so small that it is necessary to creep through on all fours in order to get inside ; and the door consists of a hurdle swung upon two posts so as to be pushed backwards and forwards at pleasure. The clay floor in the interior is always perfectly level ; it is made secure against damp as well as against the entrance of white ants by the women, who flatten it by trampling upon broad strips of bark. The common sleeping-place of the parents and smaller children is on the floor. The bedding generally consists only of skins, the Bongo having little care for mats. For a pillow they ordinarily use a branch of a tree stripped of its bark.

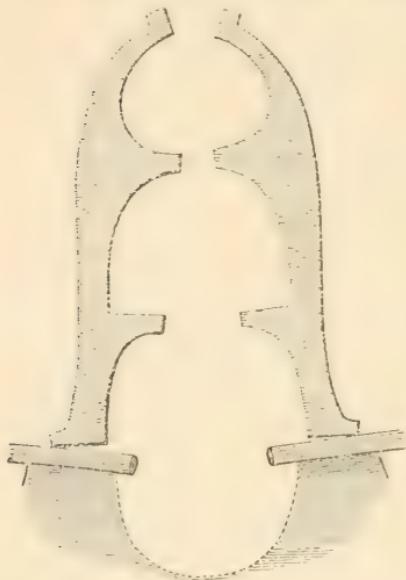
In every dwelling-place is found a conical receptacle for corn, named the "gallotoh," which is elevated on piles, varying in height, so as to protect the provisions from the damp of the soil or from the ravages of rats or white ants. Magazines of this kind for the reserve of corn are in general use throughout Africa, from the Rumboo of Damerghoo in the Central Soudan, right into the country of the Kaffirs and Bechuanas.

All the dwellings of the Bongo, whether large or small, are marked by one feature, which might almost be represented as a national characteristic. The peak of their huts is always furnished with a circular pad of straw, very carefully made, which serves as a seat, and from which it is possible to take a survey of the country covered with its tall growth of corn. The name of "gony" is given to this elevation, which is surrounded by six or eight curved bits of wood projecting as though the roof were furnished with horns. It is peculiar to the huts of the Bongo.

Iron is found in such quantities throughout the region that naturally the inhabitants devote much of their attention to its manipulation ; its very abundance apparently secures them an advantage over the Dinka. Although, according to our conceptions they would be described as utterly deficient in tools and apparatus, still they produce some very wonderful results, even surpassing the Dyoor in skill. With their rude bellows and a hammer which, more commonly than not, is merely a round ball of pebble-stone (though occasionally it may be a little pyramid of iron without a handle) upon an anvil of gneiss or granite, with an ordinary little

chisel and a pair of tongs consisting of a mere split piece of green wood, they contrive to fabricate articles which would bear comparison with the productions of an English smith.*

The season when opportunity is found for putting the ironworks



in motion is after the harvest has been housed and the rains are over. Already, in a previous chapter, iron-work, as produced by the Dyoor, has been noticed, but the Bongo have a system considerably more advanced, which appears worthy of a brief description. Their smelting apparatus is an erection of clay, generally about five feet in height, containing in its interior three distinct compartments.† These are all of the same size, that in the middle being filled with alternate layers of fuel and ore. This centre chamber is separated from the lower by means of a kind of frame resting on a circular projection; and it is divided from the chamber above by a narrow neck of communication. The highest and lowest of the divisions are used for fuel only. Round the base of the inferior chamber there are four holes, into which the "tewels" or pokers are introduced, and to which bellows are applied to increase the intensity of combustion; there is a fifth hole, which can be stopped with clay as often as may be desired, and which serves to allow the metal to be raked out after it has trickled down into the cavity below the frame.

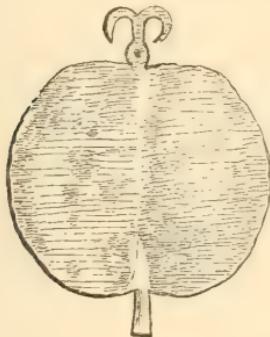
The most important of the iron productions are designed for the trade that the Bongo carry on with the tribes that dwell in the north, and which some time since was very active. The raw iron is exhibited in three separate shapes: one is named "mahee," being spear-heads of one or two feet long, corresponding exactly

* *Vide Petherick, 'Egypt, the Soudan,' &c., p. 395.*

† The woodcut represents a vertical section of one of these smelting-ovens.

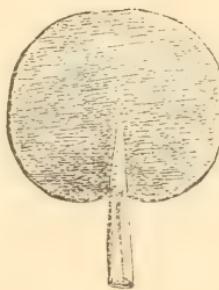
with what has been mentioned as common with the Dyoor; the second is known as "loggoh kullutty," and is simply a lot of black, ill-formed spades; the third is called distinctively "loggoh," consisting of regular spades, which, under the market appellation of "melot," have a wide sale everywhere along the course of the Upper Nile.

The "loggoh kullutty" is the circulating medium of the Bongo, the only equivalent which Central Africa possesses for money of any description. According to Major Denham, who visited the Central Soudan in 1824, there were at that time some iron pieces which were circulated as currency in Loggon on the Lower Shary, answering to what is now in use among the Bongo; but at the period of Barth's visit all traces of their use had long disappeared. The "loggoh kullutty" is formed in flat circles, varying in diameter from



IRON MONEY.

LOGGOH KULLUTTY.

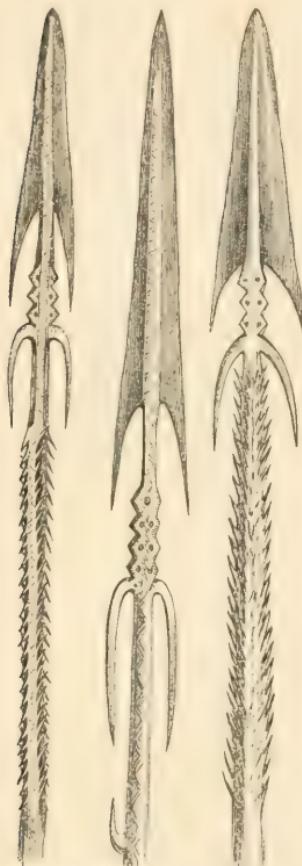


LOGGOH MELOT.

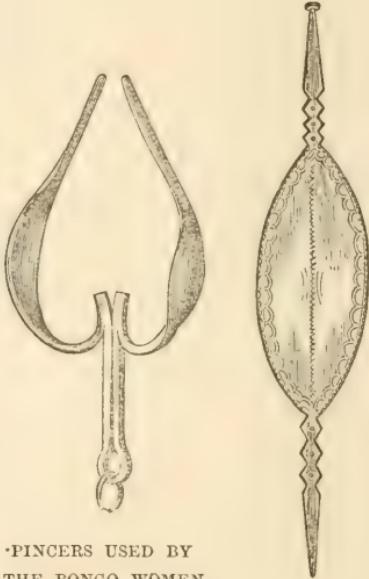
10 to 12 inches. On one edge there is a short handle; on the opposite there is attached a projecting limb, something in the form of an anchor. In this shape the metal is stored up in the treasures of the rich; and up to the present time it serves as well as the lance-heads and spades for cash and for exchanges, being available not only for purchases, but for the marriage portions which every suitor is pledged to assign. The axe of the Bongo consists of a flat, cumbrous wedge of iron, into the thick end of which is inserted a knobbed handle; it is an instrument differing in no particular from what may be seen throughout Central Africa.

Besides these rough exhibitions of their craft, the Bongo produce arms, tools, and ornaments of admirable quality, and, at the instance of the controllers of the Seribas, have manufactured chains

and manacles for the slave-traffic. Very elegant, it might almost be said artistic, is the work displayed on the points of their arrows and lances. The keen and (to use a botanical expression) the "awnly" barbs and edges of these instruments, to any one who is aware of the simple means of production in their reach, must be quite an enigma.



BONGO LANCES.

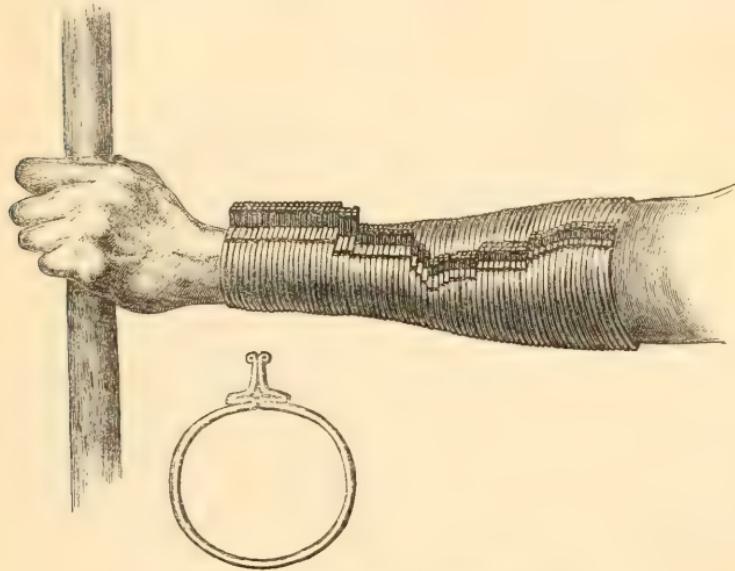


PINCERS USED BY
THE BONGO WOMEN
FOR PLUCKING OUT
THEIR EYELASHES.

KNIFE OF THE
BONGO WOMEN.

Equal care is bestowed upon the production of the iron and copper ornaments which are worn and the cutlery which is used by the women. For the purpose of plucking out their eyebrows and eyelashes, they employ a pair of little pincers called "peenoh," of

which an illustration is here introduced. Quite peculiar to the Bongo women are their "tibbah," or elongated oval knives, with handles at either end, which are sharpened on both edges, and which are often very elaborate in their workmanship. These knives are in constant use for all domestic purposes, being of especial service in peeling tubers and in slicing gourds and cucumbers. The rings, the bells, the clasps, the buttons, whatever they affix to their projecting lips or attach to the rims of their ears, the lancet-shaped hair-pins, which appear indispensable to the decoration of the crown of their head and to the parting of their locks, all are fabricated to supply the demands of the Bongo women's toilet.



THE DANGABOR AND A SINGLE RING.

The decoration of which the men are proudest is the "dangabor," which simply means "rings one above another." The Dinka and the Dyoor both have an ornament very similar to this, composed of accumulated rings, which cover the arm below the elbow; but the Bongo finish off their article with much more elaborate work. Each separate ring is furnished with a boss of a height and strength to correspond with the ring next to it, the rings themselves being forged so as to become gradually larger in proportion as they are farther from the wrist. The arm is thus covered with what may be

described as a sleeve of mail; each ring of which can be turned round or displaced at pleasure

Hardly inferior to the skill of the Bongo in the working of iron is their dexterity in wood-carving. Perhaps the most striking specimens of their art in this way may be noticed in the little low four-legged seats or stools which are found in every household, and are called "hegba." These are invariably made from a single block, the wood chosen for the purpose being that of the Göll-tree (*Prosopis lanceolata*, Benth.), which is of a chestnut brown, and after use acquires an excellent polish; they are used only by the women, who are continually to be seen sitting on them in front of their huts, but they are altogether avoided by the men, who regard every raised seat as an effeminate luxury.

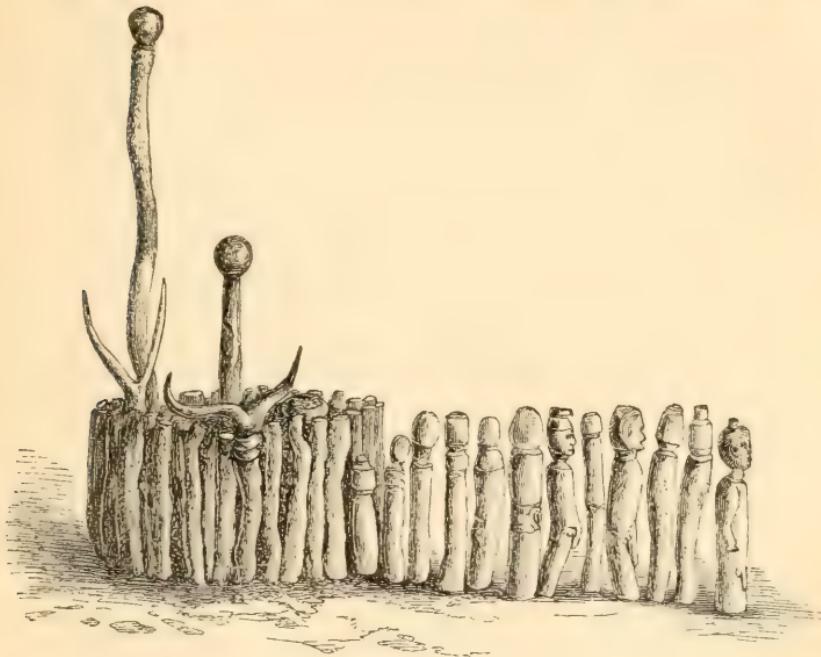


BONGO STOOL.

Other articles of their fabric in wood are pestles, troughs for oil-pressing, flails for threshing corn, and, most remarkable of all, the goblet-shaped mortars in which the corn is bruised before it is ground into flour upon the grinding-stones. Very graceful in shape are these mortars, not unlike a drinking-goblet with a cut stem; they are not sunk below the ground, as is ordinarily the case with those of the Dinka and Dyoor, but they can be removed whenever it is requisite from place to place. Their height is about thirty inches. Mortars of very similar designs were noticed by Barth amongst the Musgoo, and they are also used by the Ovambo, the Makololo, and other negro nations. They are worked by two women at once, who alternately pound away with heavy pestles in a regular African fashion, which has been long immortalised by the pictorial representations of ancient Egypt. Very cleverly, too, do the Bongo cut spoons of very choice design out of horn, of the same shape as may be found in nearly every market in Europe.

Consequent upon the oppression to which the Bongo have now

for years been subject, and the remorseless appropriation of all their energies by the intruders, very many of the primitive habits of the people were disappearing ; and at the time of my visit my attention was rather arrested by what were memorials of a bygone and happier condition of things, than by anything that was really done under my eyes. Just as in the Central Soudan, in Bornoo, and in the Tsad countries, so here also the destructive power of Islamism has manifested itself by obliterating, in comparatively a brief space



YANGA'S GRAVE.

of time, all signs of activity and all traces of progress. Wherever it prevails, it annihilates the chief distinctions of race, it effaces the best vestiges of the past, and extends, as it were, a new desert upon the face of the land which it overruns. Those who were eyewitnesses of the state of things when the intruders first broke in upon the country, gave me still further details of what had been the special industries of the people.

In the villages there are found very frequently whole rows of figures carved out of wood and arranged either at the entrances of

the palisaded enclosures, forming, as it were, a decoration for the gateway, or set up beside the huts of the "Nyare" (chiefs), as memorials, to immortalise the renown of some departed character. In Moody, a district towards the west, I came across the remains (still in a perfect state of preservation) of an erection of this sort, which had been reared above the grave of the Bongo chieftain Yanga. Large as life, the rough-hewn figures represented the chief followed in procession by his wives and children, apparently issuing from the tomb. The curious conception of the separate individuals, and the singular mode in which they were rendered by the artist, awakened my keenest interest.

The illustration which is introduced on the preceding page may be accepted as a faithful representation of the rude efforts of savages in the arts of sculpture.

Plastic representations of men are known generally by the name of "Moiogohgyee:" when I first saw them, I was under the impression that they must be idols, similar to what the Fetish-worship has introduced into the western coasts, but I soon satisfied myself of my misconception in this respect. The true design of these wooden figures is simply to be a memorial of some one who has departed this life: this is proved by the term "Moiogoh Komarah," *i.e.*, the figure of the wife, which is applied to an image raised by a surviving husband to the pious memory of his departed wife, and which is set up in the hut as a species of Penates.

In addition it may be mentioned that a custom exists of raising a monument of this kind to preserve the memory of any *male* person who has been murdered.

Without much trouble, and with the most meagre materials, they contrive to make little flutes; they are accustomed also to construct a monochord, which in its design reminds one of the instrument which (known as the "gubo" of the Zulus) is common throughout the tribes of Southern Africa. This consists of a bow of bamboo, with the string tightly strained across it, and this is struck by a slender slip of split bamboo. The sounding-board is not, however, made of a calabash attached to the ground, but the mouth of the player himself performs that office, one end of the instrument being held to the lips with one hand, while the string is managed with the other. Performers may often be seen sitting for an hour together with an instrument of this sort: they stick one end of the bow into the ground, and fasten the string over a cavity covered with bark, which opens into an aperture for the escape of the

sound. They pass one hand from one part of the bow to the other, and with the other they play upon the string with the bamboo twig, and produce a considerable variety of buzzing and humming airs which are really rather pretty. This is quite a common pastime with the lads who are put in charge of the goats. I have seen them apply themselves very earnestly and with obvious interest to their musical practice, and the ingenious use to which they apply the simplest means for obtaining harmonious tones testifies to their penetration into the secrets of the theory of sound.

As appeals, however, to the sense of sound, the great festivals of the Bongo abound with measures much more thrilling than any of these minor performances. On those occasions the orchestral results might be fairly characterised as cat's music run wild. Unwearied thumping of drums, the bellowings of gigantic trumpets, for the manufacture of which great stems of trees come into requisition, interchanged by fits and starts with the shriller blasts of some smaller horns, make up the burden of the unearthly hubbub which re-echoes miles away along the desert. Meanwhile, women and children by the hundred fill gourd-flasks with little stones, and rattle them as if they were churning butter: or, at other times, they will get some sticks or dry faggots and strike them together with the greatest energy. The huge wooden tubes which may be styled the trumpets of the Bongo are by the natives themselves called "manyinyee;" they vary from four to five feet in length, being closed at the extremity, and ornamented with carved work representing a man's head, which not unfrequently is adorned with a couple of horns. The other end of the stem is open, and in an upper compartment towards the figure of the head is the orifice into which the performer blows with all his might. There is another form of manyinyee which is made like a huge wine-bottle; in order to play upon it, the musician takes it between his knees like a violoncello, and when the build of the instrument is too cumbrous, he has to bend over it as it lies upon the ground.

Little difference can be noticed between the kettle-drums of the Bongo and those of most other North African negroes. A section is cut from the thick stem of a tree, the preference being given to a tamarind when it can be procured; this is hollowed out into a cylinder, one end being larger than the other. The ends are then covered with two pieces of goat-skin stripped of the hair, which are tightly strained and laced together with thongs.

A great number of signal-horns may be seen made from the horns of different antelopes; these are called "mangoal," and have three holes like small flutes, and in tone are not unlike fifes. There is one long and narrow pipe cut by the Bongo out of wood which they call a "mburrah," and which has a widened air-chamber close to the mouth-piece, very similar to the ivory signal-horns which are so frequently to be seen in all the negro countries.

Difficult were the task to give any adequate description of the singing of the Bongo. It must suffice to say that it consists of a babbling recitative, which at one time suggests the yelping of a dog and at another the lowing of a cow, whilst it is broken ever and again by the gabbling of a string of words huddled up one into another. The commencement of a measure will always be with a lively air, and everyone, without distinction of age or sex, will begin yelling, screeching, and bellowing with all their strength; gradually the surging of the voices will tone down, the rapid time will moderate, and the song is hushed into a wailing, melancholy strain. Thus it sinks into a very dirge, such as might be chanted at the grave, and be interpreted as representative of a leaden and a frowning sky, when all at once, without note of warning, there bursts forth the whole fury of the negro throats; shrill and thrilling is the outcry, and the contrast is as vivid as sunshine in the midst of rain.

Often as I was present at these festivities I never could prevent my ideas from associating Bongo music with the instinct of imitation which belongs to men universally. The orgies always gave me the impression of having no other object than to surpass in violence the fury of the elements. Adequately to represent the rage of a hurricane in the tropics any single instrument of course must be weak, poor, and powerless, consequently they hammer at numbers of their gigantic drums with powerful blows of their heavy clubs. If they would rival the bursting of a storm, the roaring of the wind, or the splashing of the rain, they summon a chorus of their stoutest lungs; whilst to depict the bellowings of terrified wild beasts, they resort to their longest horns; and to imitate the songs of birds, they bring together all their flutes and fifes. Most characteristic of all, perchance, is the deep and rolling bass of the huge "manyinyec," as descriptive of the rumbling thunder. The penetrating shower may drive rattling and crackling among the twigs, and amid the parched foliage of the woods, and this is imitated by the united energies of women and children, as they rattle

the stones in their gourd-flasks, and clash together their bits of wood.

It remains still to notice some examples of the various handicrafts which are practised by this people. Compared with other nations, the Bongo are remarkable for the attention they give to basket-work. They make (very much after the fashion of a coffee-bag) a strainer to filter and clarify their "legyee," which is a drink something like ale fermented from sorghum. Baskets are roughly yet substantially made by twining together the stems of the bamboo. As their first efforts in this line, the natives are accustomed to make the circular envelopes in which they pack their corn for exportation. They take the coriaceous leaves of the Combretæ and Terminaliæ, and by inserting the petiole of one leaf into the laminæ of two others, they form strips of leaves which in a few minutes are made into a kind of basket, equally strong and flexible, which answers its purpose admirably.

Woven matting is very rarely found in use. The walls of every hut are made of basket-work, as are the beehives, which are more often than not under the shadow of some adjacent butter-tree. Generally these hives are long cylinders, which midway have an opening about six inches square. The yield of honey, wild or half-wild, is very large, and of fine quality: the bees belong to the European species. The aroma of the Gardenia flowers is retained to a very palpable degree, but wherever the Candelabra-euphorbia happens to be abundant, the honey partakes of the drastic properties of its poisonous milk, and has been the cause of the natives being reproached with the intention of poisoning the Nubians.

In consequence of the people being so much engrossed at certain periods of the year by their hunting and fishing, the manufacture of fish-nets, creels, and snares, makes an important item in their industrial pursuits. For the most part all the twist, the bird-snares, and the fishing-lines are made from the fibres of bast, which are so plentiful in the cultivated Crotalaria and the Hibiscus. For inferior purposes the common lime-like bast of the *Grewia mollis* is made to suffice. The *Sansevieria guineensis* is not less abundant, but the bast which it yields, although very fine, is not very enduring. It is generally very black through having been left to lie upon the dark soil of the marshes, and is only used for making a kind of kilt like a horse's tail, which the women wear behind from a girdle about their waist. Cotton-shrubs (*Gossypium herba-*

cium) are planted only by the Dinka, who make their fishing-lines of the material which is thus provided.

The manufacture of the pottery all falls to the share of the women, who do not shrink from the most difficult tasks, and, without the help of any turning-wheel, succeed in producing the most artistic specimens. The larger water-bottles are sometimes not less than a yard in diameter. The clay water-pots are ordinarily of a broad oval shape, adapted for being carried on the head with the narrow end resting on a kind of cushion, made either of leaves or plaited straw. Handles are uniformly wanting: for, whatever may be the purpose to which the vessels are applied, whether for holding water or oil, for boiling or for baking, the material of which they are made contains so large a quantity of mica (which the natives do not understand how to get rid of), that it is very brittle, and the imperfect baking in the open air contributes to this brittleness. To compensate for the lack of handles by which the vessels might be lifted, their whole outer surface is made rather rough by being ornamented by a number of triangles and zigzag lines, which form all manner of concentric and spiral patterns. The gourd-platters and bottles are generally decorated with different dark rows of triangles.

The preparation of skins for leather aprons and similar purposes has hitherto been limited amongst the Bongo, as probably amongst all the heathen negroes, to the simplest mechanical process of kneading and fulling by means of ashes and dung, which is followed up by a liberal application of fat and oil till a sufficient degree of softness and pliancy is attained. Recently from the Nubians the use of tan has become generally known, and it may not unreasonably be conjectured that the method of using it will gradually extend from the north of Africa towards the south, in the same way as it has spread upwards from the Cape. Previous to their contact with Europeans, none of the southern people of Africa had discovered the use of tan, although the skins of their animals were a very important item in their economy. In Bongoland at present the bark of the Gere (*Hymenocardia Hudelotii*) is what is most frequently employed, and the red tan it yields is found to be very effectual.

We have now to notice the apparel and general external aspect of the people, which is as important in its way as the outline of any natural object, such as the growth and foliage of trees. In default of proper clothing, various disfigurements of person play an im-

portant part, and the savage is voluntarily even more of a slave to fashion than any of the most refined children of civilization. Here, as in every other quarter of the globe, the male sex desires to be externally distinguished from the female, and they differ widely in their habits in this respect. There is, however, one ugly custom which is common to both sexes throughout the basin of the Gazelle,



BONGO.

which consists in snapping off the incisors of the lower jaw, an operation which is performed as soon as the milk teeth have been thoroughly replaced by the permanent. Upon the south borders of the country, near the Niam-niam, this custom ceases to be exactly followed, and there it is the habit, as with the Niam-niam themselves, instead of breaking them off, to file some of the teeth, and indeed sometimes all of them, into sharp points. Occasionally the

natives file off the sides of the upper teeth as well as clip off the lower ; nor is it an uncommon thing for gaps to be opened at the points of contact of the central upper teeth, whilst every now and then individual cases occur where interstices have been made in the sides of all the four front teeth large enough to admit a good-sized toothpick. Circumcision is unknown throughout the entire river-district.

The men do not go about in a condition so naked as either the Dyoor, the Shillooks, or the Dinka, but they wear an apron of some sort of skin, and recently have adopted a strip of stuff, which they fasten to the girdle that is never missing, allowing the ends to hang over before and behind. All the sons of the red soil, as the Bongo, the Mittoo, the Niam-niam, and the Kredy, are called " women " by the Dinka, because amongst them the females only are protected by any covering of this description. The Bongo women on the other hand, and especially those who reside on the highlands, obstinately refuse to wear any covering whatever either of skin or stuff, but merely replenish their wardrobe every morning by a visit to the woods ; they are, therefore, in respect of modesty, less particular than the women of the Dinka ; a supple bough with plenty of leaves, more often than not a bough of the Combretum, and perhaps a bunch of fine grass, fastened to the girdle, is all they consider necessary. Now and then a tail, like a black horse-tail, composed of the bast of the Sansevieria, is appended to the back of the girdle in a way that has already been mentioned. The rest of the body is allowed by both sexes to be entirely unclad, and no addition to the costume is ever seen, unless we should so reckon the feathered head-gear which is exhibited on the occasion of a feast or a ball.

As a rule the hair of both men and women is kept quite short, and not unfrequently is very closely shorn, the principal exception being found in the south, where the habits of the Niam-niam have extended their influence into the Bongo territory, and both men and women wear tufts and braids of a length approximating to that of their neighbours.

It may possibly be imagined that the extremely primitive covering of the Bongo women irradiates them with something of the charm of Paradise ; but a very limited experience will soon dispel any illusion of the kind. All full-grown women attain such an astounding girth of body, and acquire such a cumbrous superabundance of flesh, that it is quite impossible to look at them without observing their disproportion to the men. Their thighs

are very often as large as a man's chest, and their measurement across the hips can hardly fail to recall the picture in Cuvier's Atlas of the now famous "Hottentot Venus." Shapes developed to this magnitude are no longer the exclusive privilege of the Hottentots; day after day I saw them among the Bongo, and they may well demand to be technically described as "Steatopyga." To their singular appearance the long switch tail of bast very much contributes, and altogether the outline of a fat Bongo woman is not unlike that of a dancing baboon.

Very few are the people of Central Africa amongst whom the partiality for finery and ornaments is so strongly shown as with the



BONGO WOMAN.

Bongo. The women wear on their necks an accumulation of cords and beads, and not being fastidious like their neighbours, will put on without regard to shape or colour, whatever the market of Khartoom can provide. The men do not care much for this particular decoration, but prefer necklaces, on which they string some of those remarkable little fragments of wood which are so constantly found in every region of Africa. With the bits of wood hang frag-

ments of roots, which are in form something like the mandrake, which, in Southern Europe, has been the subject of so strange a superstition. Alternating with the roots and wood are the talons of owls and eagles, the teeth of dogs, crocodiles, and jackals, little tortoise-shells, the claws of the earth-pig (*Orycteropus*), and in short any of those objects which we are accustomed to store in cabinets of curiosities. They appear to supply the place of the extracts from the Koran which, wrapped in leather sheaths, the Nubians wear by dozens about their person; anything in the shape of an amulet being eagerly craved by every African.

Not unfrequently the men deck themselves out in females' ornaments. Many cover the rims of their ears with copper rings and crescents; others pierce the upper lip like the women, and insert either a round-headed copper nail or a copper plate, or, what is still more general, some rings or a bit of straw. The skin of the stomach above the waist is often pierced by the men, and the incision filled up with a bit of wood, or occasionally by a good-sized peg. On the wrist and upper part of the arm they wear iron rings of every pattern; some rings are cut out of elephant and buffalo hide, and look almost as though they were made of horn. The "dangabor," an ornament composed of a series of iron rings, and worn on the lower portion of the arm, has been already described.

The Bongo women delight in distinguishing themselves by an adornment which to our notions is nothing less than a hideous mutilation. As soon as a woman is married the operation commences of extending her lower lip. This, at first only slightly bored, is widened by inserting into the orifice plugs of wood gradually increasing in size, until at length the entire feature is enlarged to five or six times its original proportions. The plugs are cylindrical in form, not less than an inch thick, and are exactly like the pegs of bone or wood worn by the women of Musgo. By this means the lower lip is extended horizontally till it projects far beyond the upper, which is also bored and fitted with a copper plate or nail, and now and then by a little ring, and sometimes by a bit of straw about as thick as a lucifer-match. Nor do they leave the nose intact: similar bits of straw are inserted into the edges of the nostrils, and I have seen as many as three of these on either side. A very favourite ornament for the cartilage between the nostrils is a copper ring, just like those that are placed in the noses of buffaloes and other beasts of burden for the purpose of rendering them more tractable. The greatest coquettes among the ladies

wear a clasp or cramp at the corners of the mouth, as though they wanted to contract the orifice, and literally to put a curb upon its capabilities. These subsidiary ornaments are not however found at all universally among the women, and it is rare to see them all at once upon a single individual : the plug in the lower lip of the married women is alone a *sine qua non*, serving as it does for an artificial distinction of race. The ears are perforated more than any part, both the outer and the inner auricle being profusely pierced ; the tip of the ear alone is frequently made to carry half-a-dozen little iron rings. There are women in the country whose bodies are pierced in some way or other in little short of a hundred different places.

The Bongo women limit their tattooing to the upper part of the arm. Zigzag or parallel lines, or rows of dots, often brought into relief by the production of proud flesh after the operation has been accomplished, are the three forms which in different combinations serve as marks of individual distinction. At one time the lines run across the breast and stomach to one side of the body ; at another they are limited to the top of the arm, whilst it is not at all unusual for the neck and shoulder-blades to be tattooed. The men tattoo themselves differently, and some of them abstain from the operation altogether.

Besides the ornaments that I have mentioned, the toilet of a Bongo lady is incomplete without the masses of iron and copper rings which she is accustomed to wear on her wrists and arms, and more especially on her ankles. These rings clank like fetters as she walks, and even from a distance the two sexes can be distinguished by the character of the sound that accompanies their movements. That human patience should ever for the sake of fashion submit to a still greater martyrdom seems almost incredible, though hereafter we shall have sufficient proof when we delineate the habits of the Mittoo, the neighbours of the Bongo, that such is really the case.

In Bongoland, as in all the northern parts of the territory that I visited, copper of late years has attained a monetary value, and has become an accustomed medium of exchange. Glass beads are annually deteriorating in estimation, and have long ceased to be treasured up and buried in the earth like jewels or precious stones, being now used only to gratify female vanity. In former times, when the only intercourse that the Bongo held with the Mohammedan world was by occasional dealings with the Baggara Arabs,

through the intervention of the Dembo, a Shillook tribe connected with the Dyoor, cowrie-shells were in great request, but these also have long since fallen out of the category of objects of value. Gold and silver are very rarely used as ornaments, even in the Mohammedan parts of the Eastern Soudan ; it is therefore hardly a matter of surprise that to the Bongo, whose soil is singularly uniform in its geological productions, they should be all but unknown. The Bongo, however, have but little value for brass, differing greatly in this respect from their neighbours, the Dyoor.

Their weapons consist mainly of lances, bows and arrows, shields being very rarely used, and even then being appropriated from other neighbouring nations. The large size of their weapons is remarkable ; I saw many of their bows which were four feet in length, their arrows are rarely under three feet long, and on this account they are never made from the long reed-grass, but are cut out of solid wood. The forms of the arrow-heads also have a decided nationality stamped upon them. In the course of time I was easily able to tell at a glance the tribe to which any weapon belonged by certain characteristics, the details of which would now engross more time and space than are at our command. It may be mentioned that the Bongo, like the negroes above Fesoglu, on the Upper Blue Nile, imbue their arrows with the milky juice of one of the Euphorbiæ. This species of Cactus-euphorbia (*E. venifica*) is termed by the Bongo " bolloh " in contradistinction to " kakoh," their name for the larger sort (*E. candelabrum*), which is common in the country, but of which the milky juice is far less dangerous than that of the " bolloh," for if this be applied in a fresh condition to the skin, it results in a violent inflammation. It is, however, my opinion that this juice, as it is used by the Bongo, being spread in a hard mass over the barbs and heads of the arrows, can do very little harm to the wounded, as when it is once hard it is difficult to melt, and there cannot possibly be time for it to commingle with the blood after a wound has been made by an arrow.

We may now turn our attention to the Bongo games, which are as original and primitive as their music. One of these games, as forming excellent training for the chase, deserves some especial notice. A number of men are provided with pointed sticks made of hard wood, which they use as lances. They form a large ring, and another man who has a piece of soft wood attached to a long string, runs round and round within the circle. The others then endeavour with their pointed sticks to hit the mark whilst it is

being carried rapidly round. As soon as it is struck it falls to the ground, and the successful marksman is greeted with a loud cheer. Another game requires no less calmness and dexterity. A piece of wood bent into a crescent has a short string attached to the middle; this wood is then hurled by the one end of it with such violence to the earth that it goes spinning like a boomerang through the air. The players stand face to face at a distance of about twenty feet apart, and the game consists in catching the wood by the string, a performance that requires no little skill, as there is considerable danger of receiving a sharp knock. Both games might, under some modifications, admit of being adopted into our rural sports.

Turning now to the national manners, customs, and ideas, I profess that they are subjects of which I must treat with considerable reserve, since my residence as a stranger for two years amongst these savages only gave me after all a very superficial insight into the mysteries of their inner life. Since, however, the accounts of eye-witnesses, who knew the land in its primitive condition, seem to accord with and to corroborate my own observations, as well as the information I obtained from the Bongo themselves, I am in a position to depose to some facts, of which I must leave the scientific analysis to those who are seeking to cultivate the untried soil of the psychology of nations.

Elsewhere, and among other nations with whom I became acquainted, the number of a man's wives was dependent on the extent of his possessions, but amongst the Bongo it seemed to be limited to a maximum of three. Here, as in other parts of Africa, a wife cannot be obtained for nothing, even the very poorest must pay a purchase price to the father of the bride in the form of a number of plates of iron; unless a man could provide the premium, he could only get an old woman for a wife. The usual price paid for a young girl would be about ten plates of iron weighing two pounds each, and twenty lance-tips. Divorces, when necessary, are regulated in the usual way, and the father is always compelled to make a restitution of at least a portion of the wedding-payment. If a man should send his wife back to her father, she is at liberty to marry again, and with her husband's consent she may take her children with her; if, however, her husband retains the children, her father is bound to refund the entire wedding-gift that he received. This would be the case although ten years might have elapsed since the marriage. The barrenness of a woman is always an excuse for a divorce. In cases of adultery, the husband en-

deavours to kill the seducer, and the wife gets a sound flogging. Whoever has been circumcised according to the Mohammedan law, cannot hope to make a good match in Bongoland.

A Bongo woman, as a rule, will seldom be found to have less than five children : the usual number is six, and the maximum twelve. In childbirth she is supported with her arms on a horizontal beam, and is in that position delivered of the child ; the navel-cord is cut very long with a knife, and always without a ligature. No festivities are observed on the occasion of a birth. The infants are carried on the mothers' backs, sewn up in a bag of goat's-hide, like a water-bottle. The children are kept at the breast until they have completed their second year, weaning being never thought of until they can be trusted to run about. In order to wean a child, the mother's breast is smeared with some acrid matter, and the bruised leaves of some of the *Cupparilæ* are mixed with water to a pulp, and have the effect of drying up the milk.

Among the Bongo and the neighbouring nations there is a custom, manifestly originating in a national morality, that forbids all children that are not at the breast to sleep in the same hut with their parents ; the Bongo in this respect putting to shame many of those who would boast of their civilization. The elder children have a hut appropriated to themselves, but take their meals with the rest of the family. In addition to this custom there is the universal rule, as with ourselves, that no matrimonial alliance takes place until the youths are about eighteen and the girls about fifteen years of age.

In the disposal of their dead, the customs of the Bongo are very remarkable. Immediately after life is extinct, the corpses are placed, like the Peruvian mummies, in what may be described as a crouching posture, with the knees forced up to the chin, and are then firmly bound round the head and legs. When the body has been thus compressed into the smallest possible compass, it is sewn into a sack made of skins, and placed in a deep grave. A shaft is sunk perpendicularly for about four feet, and then a niche is hollowed to the side, so that the sack containing the corpse should not have to sustain any vertical pressure from the earth which is thrown in to fill up the grave. This form of interment is also prescribed in the law of Islam, which, in this and many other cases, has probably followed an African custom. The Bongo have a striking practice, for which, perhaps, some reason may be assigned, of burying men with the face turned to the north and women to the south. After the grave is filled in, a heap of stones is piled

over the spot in a short cylindrical form, and this is supported by strong stakes, which are driven into the soil all round. On the middle of the pile is placed a pitcher, frequently the same from which the deceased was accustomed to drink water. The graves are always close to the huts, their site being marked by a number of long forked branches, carved, by way of ornament, with numerous notches and incisions, and having their points sharpened like horns. Of these votive stakes I saw a number varying from one to five on each grave. The typical meaning belonging to these sticks has long since fallen into oblivion, and notwithstanding all my endeavours to become acquainted with the Bongo, and to initiate myself into their manners and customs, I could never discover a satisfactory explanation. The sticks reminded me of the old English finance-budgets in the time of William the Conqueror. In answer to my enquiries, the Khartoomers merely returned the same answer as they did to my predecessor, Heuglin; they persisted in saying that every notch denoted an enemy killed in battle by the deceased. The Bongo themselves, however, repeatedly declared that such was by no means the case, and quite repudiated the idea that they should ever think of thus perpetuating the bloodthirstiness of the dead. The neighbouring Mitoo and Madi adopt very much the same method of sepulture. The memorial-urns erected over the graves of the Musgoo remind the traveller of those of the Bongo. Whenever a burial takes place, all the neighbours are invited to attend, and are abundantly entertained with merissa. The entire company takes part in the formation of the grave, in the rearing of the memorial-urn, and in the erection of the votive stakes. When the ceremony is finished, they shoot at the stakes with arrows, which they leave sticking in the wood. I often noticed arrows that had been thus shot still adhering to the sticks.

The Bongo have not the remotest conception of immortality. They have no more idea of the transmigration of souls, or any doctrine of the kind, than they have of the existence of an ocean. I have tried various ways and means of solving the problem of their inner life, but always without success. Although the belief in immortality may be indigenous to Africa, I should question whether the ancient Egyptians did not in their religious development obey the promptings of the Asiatic East. At any rate, those statements are incorrect which would endeavour to explain the dull resignation displayed by the victims of human sacrifice in Dahomey by a theory of their belief in immortality. All religion, in our

sense of the word religion, is quite unknown to the Bongo, and, beyond the term "loma," which denotes equally luck and ill-luck, they have nothing in their language to signify any deity or spiritual being. "Loma" is likewise the term that they use for the Supreme Being, whom they hear invoked as "Allah" by their oppressors, and some of them make use of the expression, "loma-gobo," i.e., the superior, to denote the God of the "Turks." The almost incomprehensible prayers of the Mohammedans are called by the Bongo "malah," which has evidently some connection with the word "Allah" that is generally repeated over and over again in all the devotions of the Nubians.

If any one is ill, his illness is attributed to "loma," but in the event of anybody losing a wager or game, or returning from a hunting adventure without game, or coming back from war without booty, he is said to have had "no loma" (*loma nya*) in the sense of having no luck.

Quite amazing is the fear which exists among the Bongo about ghosts, whose abode is said to be in the shadowy darkness of the woods. Spirits, devils, and witches have their general appellation of "bitaboh;" wood-goblins being specially called "ronga." Comprehended under the same terms are all the bats (especially the *Megaderma frons*, which flutters about from tree to tree in broad daylight), as likewise are owls of every kind (*Strix leucotis* and *Strix capensis* being here the chief); and besides these the Ndorr (*Galago senegalensis*), a kind of pseudo-simia, with great red eyes and erect ears, which drags out a gloomy existence in the cavities of hollow trees. There are, too, prowling beasts of night, for which they entertain the utmost dread, regarding them with superstitious awe. To ward off the evil influences of these spirits, the Bongo are acquainted with no other means except the magical roots in which the professional sorcerers trade in a similar way as the Mohammedan priests of the Soudan in their amulets and sentences from the Koran. Very seldom are any attempts made to expel the spirits by the means of exorcism, which is turned to great account by the Dinka magicians. The institution of the "Cogyoor" is here called "belomah," but whenever it is necessary to have an invocation over a sick patient, they more often than not send for a professional wizard from the neighbouring Dinka.

Good spirits are quite unrecognised, and, according to the general negro idea, no benefit can ever come from a spirit at all. They affirm that the only thing they know about spirits is that they

do mischief, and certain it is that they have no conception either of there being a Creator, or any kind and ruling power above. They assert that there is no resource for obtaining communication with spirits, except by means of certain roots, which may be of service likewise in employing the powers of evil to inflict injury on others. To their knowledge of this magic may be attributed much of the influence which the native chiefs, independently of their authorised rule, exercise over the mass of the people in their districts. This may be witnessed among the Bary on the Bahr-el-Gebel, and a hundred other tribes, who yield the greatest deference to the controllers or captains of their communities. The practice of fetching down rain is never pretended to by the Bongo chiefs, and may be said to be absolutely unknown; but probably this may rise from the climate so rarely making it necessary to put their skill in this respect to the test.

All the very old people of either sex, but especially the old women, are exposed to the suspicion of allying themselves to wicked spirits, for the purpose of effecting the injury of others. Old folks, so the Bongo maintain, wander through the forest-glades at night, and have only to secure the proper roots, and then they may apparently be lying calmly in their huts, whilst in reality they are taking counsel with the spirits of mischief how they can best bring their neighbours to death and destruction. They dig for roots, it is continually said, that they may have the means of poisoning those around them. Whenever any case of sudden death occurs, the aged people are held responsible, and nothing, it is taken for granted, could be more certain than that a robust man, except he were starved, would not die. Woe to the old crones, then, in whose house the suspected herbs and roots are found! though they be father or mother, they have no chance of escape.

A genuine and downright belief in witches has long been and still continues as deeply seated here as in any spot upon the face of the earth, and nowhere are prosecutions more continually being instituted against them. As matter of fact, I can affirm that really aged folks among the Bongo are comparatively scarce, and that the number of grey-headed people is, by contrast, surprisingly large among the neighbouring race of the Dyoor, who put no faith at all in any witchcraft. The Nubians are not only open to superstitions of their own, but confirm the Bongo in all of theirs. In the Eastern Soudan, which is a Mohammedan country, the conversation will

constantly turn upon the "sáhara" (*i. e.*, the witches), and no comparison is more frequent than that which likens the old women to hyenas: in fact, many of the people hold hard and fast to the conviction that the witches are capable of going out at night, and taking up their quarters inside the bodies of these detestable brutes, without any one being aware of what is happening. After this I was not so surprised as might be expected when Idrees, the governor of Ghattas's Seriba, boasted in my presence of his conflicts with witches, bragging that in one day he had had half-a-dozen of them executed. An occasion shortly afterwards arose, when Idrees was contemplating putting two old women to death at the desire of some Bongo, and the only scheme I could devise to make him desist from his purpose, was by threatening him that, in the event of the women being executed, I would poison his water-springs.

The method of proceeding among the Bongo with the sick and wounded is invariably of the very simplest character. When the disorder is internal, and the origin cannot be detected, the treatment consists merely in liberal applications of very hot water. The patient is stretched upon the ground, and sprinkled by means of leafy boughs with boiling water from vessels that are placed close by. Somewhat more expert is their proceeding in the case of the wounded.

With remarkable fortitude the patients all submit to the practice of the country, which consists in the introduction of a number of setons, made of the strong and fibrous bast of the *grewia*, into the injured parts, in order to reduce the inflammation.

With the exception of red ochre, the Bongo, like most of their neighbours, are not acquainted with any mineral which they can apply to a wound, either as a reducent or an antiseptic. As medicines to accelerate the natural processes of cure, they make use of the astringent bitter barks of certain trees like the *Hymenocardia*, the *Butyrospermum*, and the *Prosopis*, which are here known as the "gere," the "kor," and the "göll." Syphilis, which now makes its insidious progress, was quite unknown amongst these poor savages previous to the settlement amongst them of the Nubians, and against its mischief the only specific employed is the bitter bark of the *Heddo-tree* (*Anogeissus*), one, however, which undoubtedly is utterly useless for the purpose.

The misshapen and crippled are entirely unknown amongst these unsophisticated children of Nature. But in a country where, even

with the best attention on the part of a mother, every child must be exposed to perils which necessarily are associated with existence in a wilderness, how should it be possible for a cripple to stand out the battle of life? As freaks of nature, every now and then there may be seen some dwarfs, and I presume that some mutes may occasionally be found, as there is a word ("mabang") in their language to express the defect in the faculty of speech.

The insane ("bindahko") are shackled hand and foot; and avowedly with the design of cooling and soothing their passions, they are thrown into the river, where they are immersed by practised swimmers. If this remedy should prove of no effect, the patient is put into confinement, and dieted by the relatives; but generally the lot of a maniac is far happier than that which befalls an aged man, however innocent. To maintain the strength of invalids, certain kinds of flesh are prescribed, and a particular value is attributed to the flesh of the Gullukoo (*Tmetoceras abyssinicus*), a kind of rhinoceros hornbill, which has a detestable flavour, as odious as hemlock.

The dialect of the people throughout the whole country exhibits very little diversity; the best evidence for this is afforded by the perfect uniformity of expression in every part of the land for all natural objects whatever; whilst even in dealing with conceptions of an abstract character, there is little fear of being misunderstood. The language altogether has a harmonious ring, abounding in the vowel sounds of *a* and *o*, as the name of the people indicates; it is very simple in its grammatical structure, and at the same time it presents a great variety of terms for all concrete subjects. The vocabulary that I compiled contained nearly one thousand distinct expressions.

The etymology of connected words and the analysis of separate idioms afford considerable interest, and transport the student right into the ingenuous world of their natural life. The more common of our abstract ideas, such as *spirit*, *soul*, *hope*, and *fear*, appear to be absolutely wanting, but experience shows that in this respect other negro tongues are not more richly provided by nature. The labours of missionaries in translating the Scriptures have notoriously introduced into the written language a number of elevated idioms and of metaphorical ideas which very probably in a few generations may be more or less incorporated into the tongue, but to the student of language who shall make the gleanings these introductions will be a mere refuse, and the only subject of any scientific interest will be

the speech of the people as it was while it remained intact and unaffected by innovation.

The speech of a people is very often indicative of the predominating character of their pursuits. By the name of "mony," which originally meant the common sorghum, which is the staple of their produce, the Bongo, being an agricultural people, have come to denote not so much that particular corn, as eatables of any description. They have, moreover, adopted this word as the root of a verb which is conjugated. In a way corresponding to this the Niam-niam, who are mainly addicted to hunting, give a very comprehensive meaning to their word "push-yo," which signifies "meat." Of almost infinite variety are the names of the different individuals among the Bongo. I had opportunities of making inquiries whilst I was measuring nearly a hundred of the people, and I do not think that I found more than five names that occurred more than once. As a regular rule parents name their children after trees or animals, or some object in nature, and it is quite exceptional for any personal peculiarity to be associated with the appellation.

In the labyrinth of African culture it is very difficult to disentangle the hundred threads which lead up to the centre from which they have been all unwound. Not a custom, not a superstition is found in one part which is not more or less accurately repeated in another; not one contrivance of design, not one weapon of war exists of which it can be declared that it is the exclusive property of any one race. From north to south, and from sea to sea, in some form or other, every invention is sure to be repeated; it is "the thing that has been." The creative hand of Nature alone produces what is new. If we could at once grasp and set before our minds facts that are known (whether as regards language, race, culture, history, or development) of that vast region of the world which is comprehended in the name of Africa, we should have before us the witness of an intermingling of races which is beyond all precedent. And yet, bewildering as the prospect would appear, it remains a fact not to be gainsaid, that it is impossible for any one to survey the country as a whole without perceiving that high above the multitude of individual differences there is enthroned a principle of unity which embraces well-nigh all the population.

Such a conclusion has been amply borne out by the preceding delineation of the Bongo, who form an element in that unity. We cannot take a retrospect of the particulars which have been now detailed about them, without the question arising as to which of

the other races of Central Africa most nearly resemble the Bongo. Any answer to this question that could not be invalidated would afford hints invaluable for the investigation of the latest movements among African nations; but I must confess that I am only hazarding an opinion which I cannot establish, when I name the countries about Lake Tsad as being those in which the most marked similarity in habit to the Bongo might be expected, and the tribes to which I would more particularly allude are the Musgoo, the Massa, the Wandala, and the Loggon. To these should be added the Bechuanas in South Africa.

I conclude by repeating the comparison which I made at the beginning between the existence of a people and a drop of water evaporating in the sea. Ere long, the Bongo as a people will be quite forgotten, superseded by a rising race. The time cannot be far off when this race, so gifted and so impressionable, shall be known no more. The domination over the people which is contemplated in Egypt cannot fail to effect this result, and it is a destiny that probably awaits all the rest of the African races. However much the Nubian may tyrannize, he still leaves the poor natives a portion of their happiness. But there is still a more distant future: after the Nubian comes the Turk, and he takes all. Truly it is not without reason that the proverb circulates in every district, "Where the Turk has been no grass will grow."

CHAPTER V.

Enjoyment of the rainy season—Calamities by fire—Deliverance and escape—Six slaves burnt—Barterings—Domestication of wild cats—Vermin—Fever—Meteorology—Resolve to follow Aboo Sammat—Passage of the Tondy—The waterbock—Scenery by night—Shereefee's attack—Seriba Duggoo—Consequences of steppe-burning—Land-snails—White ant-hills—Arrival in Sabby—Nocturnal festivities—Desolation of the country—Lions—Tour through the Mittoo country—Waking in the wilderness—Soldier carried away by a lion—Dokkuttoo—Fishing in the Roah—Ngahma—Dimindoh, the hunter's Seriba—Dangadduloo—The Rohl—Footsore—Poncet's Seriba—Mvolo—Fantastic character of landscape—Rock-rabbits—Seriba Karo—Reggo—Kurragera—Aboo Sammat's festivities—An oration—Deraggo and the mountains—Kuddoo on the Roah—Return to Sabby—The Mittoo tribes—Disfigurement of lips—Fetters of fashion—Love of music.

So satisfactory was the condition of my health that it appeared to me entirely to confute the opinion entertained by Europeans that a prolonged residence in the tropics is destructive alike of physical and moral energy. For those probably who live in indolent repose, and who are surrounded by all the appliances of domestic comfort, who so far from undertaking the trouble of a journey, have scarcely the activity to take a walk, there may be some ground for the presumption; and more particularly may this be the case in Mohammedan countries where slothfulness and *laissez faire* are as contagious as gaping is all the world over. But nothing of the kind is to be found for a traveller whose elasticity is kept at all on the stretch, and who is conscious of not having a minute to spare; the exercise of his faculties will keep them in vigour as full as though he were still on his native soil. For my own part, I could not help thinking of the contrast between the rainy season which I spent here and that which, in 1865, I had passed in Gallabat; now all was animated and cheerful; life seemed free from care; my health was unimpaired, and I enjoyed the most intimate converse with Nature; but then, on the contrary, it had been a perpetual struggle

between getting well and getting ill, and I had never ceased to be haunted by the depressing influences of a weary spirit.

Happily as my time in the Seriba glided on, it was not altogether free from peril. An incident full of alarm occurred on the night of the 22nd of May. The rain was coming down in torrents, and about two hours after midnight a tremendous storm ensued. The thunderclaps rattling through the woods sounded like an avalanche, and coming rapidly one upon another, seemed to keep pace with the lightning which gleamed through the darkness. Suddenly there was a shrieking of women's voices, and at the same instant the blackness of night was changed to the light of day, as the blaze of a burning hut flared up aloft. The flaming structure was only separated from my own quarters by my single granary. Aroused by the outcry I sprang up; for to be caught asleep in an edifice constructed of straw and bamboo is to be enveloped in fire, and is almost certain death. The danger was very imminent; in a very few minutes my hut must apparently be in flames. The work of demolition began at once; my powder was conveyed without delay to a place of safety; my chests and my herbarium were then secured; all the smaller articles of my furniture were thrown into great waterproof coverings and dragged out *en masse*. Perhaps about half of my property had thus been placed out of jeopardy when we observed that the wind bore the flames in a different direction, and fortunately the light framework of the burning roof gave way and it soon fell in; saturated as the straw was with the rain it put a check to the further spreading of the flames. Now was the time to draw our breath and look around; we could now give over our hurry and scurry, and examine the real condition of things. I stood almost petrified at the reflection how narrowly I had escaped coming to utter grief on this unlucky night; I thought how deplorable had been my lot if I had been reduced to a condition of nakedness and want in this inhospitable land; I became alive to the sense of shame with which I should have retraced my way back to Khartoom within a year, and with my task unfinished; I was dispirited; I knew not what might happen, and perhaps this fire was only a prelude to yet more bitter experience.

The tokkul which had been burnt down was hardly five-and-twenty paces from my very bed. There, struck by lightning, six female slaves had met their simultaneous death; a seventh had been untouched by the electric fluid, and had contrived, half dead from burning, to effect an escape from the flaming pile. When

a clearance was made the next morning, after the ashes had been removed, the bodies of the ill-fated women were found completely charred, lying closely packed together just as they had gone to sleep in the hut around its centre support, which had been the conductor of the lightning. They formed a ghastly spectacle, at which even the native negroes could not suppress a shudder, whilst the recently imported Niam-niam slaves made no disguise of the relish with which they scented the odour of the burnt flesh, as they helped to clear away the *débris*.

As far as regards danger from fire, the settlement here was at a disadvantage when compared with various Seribas in which the huts are not crowded so closely together; but in other respects, such as the more complete security of the territory itself, the abundance of provisions, the rareness of mosquitoes, and the small number of white ants, this Seriba had recommendations which put every other in the shade. Very advantageous was the appearance at my door, morning after morning, of the neighbouring Dinka, who brought every variety of their productions for me to purchase. In this way I was kept amply provided not only with yams and earth-nuts, the purest of oil and the finest of honey, but I was able readily to obtain all the corn I required for my retinue. Moreover, it happened not unfrequently that I had some natural production offered me of considerable rarity, and thus the edge of my botanical curiosity was kept continually sharpened. In the very depth of the rainy season, by getting the eggs of some geese and bustards, and even of some ostriches, I managed to counterbalance the meagre produce of my poultry.

Of these opportunities of seeing considerable numbers of the natives gathered round me, I made the best use I could to obtain the measurements of their bodies, an achievement on which I had set my mind with some degree of pertinacity. At the end of one year's residence in the interior I had made a synopsis (under about forty heads) of the measurements of nearly two hundred individuals.

In the beginning of September I was able to make a despatch to the river of the treasures I had collected, and to forward them by way of Khartoom to Europe. I had upwards of forty packages, and to put them together and make them secure was the business of a good many days. For the protection of my packages and to prevent the botanical contents being invaded by insects or gnawed by rats, I had no difficulty in providing the caoutchouc substance

of the *Lundolphia*, the "Mono" of the Bongo. This I obtained in a fresh condition, when it has the appearance of a well-set cream, and washed it lightly over the linen or the paper like a varnish. Not an insect found its way through this coating, and my packages all arrived thoroughly uninjured in spite of their being a twelve-month on their way. Less adapted for the purpose I found both the milky sap of the fig and of the butter-tree, because it is not so uniform in its character and does not admit of being spread so readily.

The produce of Ghattas's Company was this year four hundred loads of ivory, being somewhere about 220 cwt., which would be worth in Khartoom nearly 4000*l.* In order to reach this amount, certainly not less than three hundred elephants had been destroyed, and probably considerably more.

Although the ants at this spot did not abound in the wholesale way in which they did in many other Seribas, there were nevertheless plenty of inconveniences in my quarters, and like every other traveller I had to get accustomed to them as soon as I could.

My want of space was a great difficulty. I was hardly at all better off in the hut where I ordinarily lived than in an old overcrowded lumber room. Under such circumstances, no wonder that I had perpetual conflict with rats, crickets, and cockroaches, and that they were a constant source of annoyance.

The only method which was really an effectual guarantee for the protection of any articles from being gnawed to bits was to hang them up; but whenever at nightfall I had any packages which could not be suspended there was one device of which I made use, and which was tolerably successful in keeping rats at a distance. One of the commonest animals hereabouts was the wild cat of the steppes (*Felis maniculata*). Although the natives do not breed them as domestic animals, yet they catch them separately when they are quite young and find no difficulty in reconciling them to a life about their huts and enclosures, where they grow up and wage their natural warfare against the rats. I procured several of these cats, which, after they had been kept tied up for several days, seemed to lose a considerable measure of their ferocity and to adapt themselves to an indoor existence so as to approach in many ways to the habits of the common cat. By night I attached them to my parcels, which were otherwise in jeopardy, and by this means I could go to bed without further fear of any depredations from the rats.

The encroachment of the wood-worms in the bamboos which composed my hut developed itself into a nuisance of a fresh sort. To myself it was a matter of indifference whether the building collapsed sooner or later, but just at present it was a great annoyance to me that all day long there should be an unceasing shower of fine yellow dust, which accumulated on everything till it lay as thick as my finger, and almost exceeded the bounds of endurance.

Another noxious insect which was to be found in every hut was the Pillen-wasp (*Eumenes tinctor*). This was nearly two inches long, and had a habit of forming its nest in the straw right at the top of the circular roof. Associated with eight or ten others it made a huge cell, and flying in and out through the narrow doorway, which was the only avenue for light, it came into constant collision with my face.

Thoroughly free, as I have said, from fever, during March and April, I persevered in taking my daily dose of ten grains or more of quinine; but as the heat diminished, and as the rainy season at its height was not so full of miasma, I gradually diminished, and in June and July entirely gave up my uniform administration of the tonic. But quinine still remained my sole medicine, my only resort in every contingency. If ever I got a chill, if ever I was wet through, or was troubled with any symptoms of indigestion, I lost no time in using it, knowing that for any traveller in a region such as this, any indisposition whatever is simply a doorway through which fever insidiously creeps and effects its dangerous lodgment. Not only, as I have remarked, were fevers here quite common, but my own attendant, who had accompanied me from Alexandria, was prostrated for some days by a very serious attack, and his condition of health was so much impaired that he had to be sent back on the next return of the boats. There were others, too, of my own people who had to endure attacks of less severity.

Expecting, as I had been, a much larger fall of rain, I could not be otherwise than surprised at the meteorological facts which were actually exhibited. Although the rainfall extends over a longer period, the total average fall of water is less here than it is either in Gallabat or in Upper Sennaar, where the rain lasts only from the beginning of May to the beginning of October. In Gallabat it was considered rather a feat to walk during the rainy season from one house to another either in slippers or in Turkish shoes, but here, day after day, such protection for the soles of the feet was quite sufficient, even where the ground was not at all rocky.

European vegetables in Gallabat had generally been found to suffer from the excessive wet, and others had either run into weeds or in some way degenerated, but here, from May till August, we cultivated many sorts successfully, and made good use of the intervals which, sometimes from four to six days together, passed without any rain whatever. To confirm what I have said, I adduce the facts that in March 1869, in the centre of Bongoland (lat. $7^{\circ} 20' N.$), the "Khareef" was opened by four little showers; in April there were seven considerable downpours; in May seven falls of rain, lasting several hours; in June ten, in July eleven, and in August twelve. These must not be reckoned as days of rain, for the truth is, an entire day of uninterrupted rain never once occurred. The rainfall only up to June was attended by tempests or thunderstorms, after which date the violence of them gradually and almost entirely abated. Heuglin in 1863 had made the same observation. At the end of July there ensued an entire change of temperature, and only in exceptionally hot afternoons did the heat ever again reach the extreme point which it had done previously; but even at its maximum it had never exceeded 95° Fahr. in the huts, whilst in the open air it was ordinarily 2° lower. I could now rejoice in a degree of heat scarcely above what is common in our northern zone, and seldom registered a temperature above 77° Fahr. in my own quarters. This fall in the thermometer is very beneficial and refreshing to the European, whose skin, exhausted by repeated perspiration, is very often distressed by a perpetual nettlerash.

The earliest rain which I observed this year fell while I was still at the Meshera on the 2nd of March; and the 16th of that month was the date on which the wind for the first time deviated from its long-prevailing north-easterly direction.

The uniformity of climate in equatorial Africa contributes very much to extend the range of particular species of plants. To this may be added the absence of those mountain-systems which elsewhere, as in Asia, traverse the continent in all directions. Without let or hindrance the trade-winds exert their influence over the entire breadth of this region. Any interruption of the rainy season between the two zenith positions of the sun, which in Bongoland are some months apart, has never been authenticated. Although upon the north-west terraces of Abyssinia the rainy season might appear, through the influence of the mountains, to be obliterated or obscure, yet it could always be traced; but nevertheless the whole

aggregate of circumstances which contribute to these precedents is not to be estimated during the transitory observations of one short sojourn.

Neither during the continuation of my wanderings towards the south did I find any indication which seemed to evidence that two rainy seasons had anywhere coalesced so as to become one continuous period of rain, which sufficed throughout the year to maintain an uninterrupted renewal of vegetation. Nowhere in the equatorial districts which I visited (not even in the territory of the Monbuttoo, of which the latitude is between 3° and 4° N.) did it appear that there ever failed a uniform period for foliage to develop itself. Apparent exceptions might be found where the condition of the soil is never otherwise than wet throughout the year; but even in this low latitude there is a dry season and a wet season, just as decided as in Nubia, twelve degrees further to the north.

During September I found an opportunity for a third excursion to the Tondy, and had the good fortune to make some valuable additions to my botanical store, but apart from this my days glided on without variety, and I have no episodes of interest to relate. Fastened down as I was for the present to one spot, I had to limit my observations to its immediate neighbourhood.

The rainy season in due time came to its end. For seven months and a half I had been quietly quartered in the Seriba of Ghattas; but a change was now impending, as I had resolved to quit my limited range and to attach my fortunes to the care of Aboo Sammat, whom I have already mentioned. Repeatedly he had invited me, at his own expense, to visit with him the Niam-niam lands, and I had determined to follow the advice of my people, who knew his character, and to accept his offer. I discovered that he had penetrated considerably further to the south than any other, and that he had more than once crossed that problematic stream of the Monbuttoo which was said to flow quite independently of the Nile system towards the west. The prospect of visiting the Niam-niam would be much more restricted if I were to remain attached to the expeditions of Ghattas's Company, as they had hitherto been confined to those nearest and most northerly districts of that country of which the first knowledge in Europe had been circulated by Piaggia.

I could not be otherwise than aware of the questionableness of giving up my safe quarters, and exchanging my security for the uncertain issues of a wandering life in Central Africa, but irresistible was the inducement to enlarge my acquaintance with the country

and to find a wider field for my investigations. Full of expectation, therefore, I turned my hopes towards the south, in an eastern direction, towards that untraversed region between the Tondy and the Rohl, which already is just as truly subject to the Khartoomers as that in which I had been sojourning.

Aboo Sammat, in the most complimentary way, had made me a variety of presents: by special messengers he had conveyed to me animal and vegetable curiosities of many sorts. He once sent me the munificent offering of a flock of five-and-twenty sheep; and at my own desire, but at his cost, he furnished me with a young interpreter to teach me the dialect of the Niam-niam. In the middle of November, on his return from the Meshera, he would take our Seriba on his way, and I resolved to join him.

The people at Ghattas's quarters endeavoured, but to no purpose, to dissuade me; they represented in melancholy colours the misery to which I should inevitably be exposed in the desert life of Aboo Sammat's district, which was every now and then threatened with starvation. There would be no lack of monuments of antiquity ("antigaah," as they called them), or of hunting, or of wild beasts, but I must be prepared for perpetual hunger. Against all this, however true it might be, I consoled myself with the reflection that Aboo Sammat would certainly manage to keep me in food, and the difference of one more or less in number could not be very serious.

After I had made all my arrangements to store the collections which had accumulated since my last despatch, I prepared to quit my bountiful quarters and to start by way of Koolongo over the desolation of the wilderness towards the south. The baggage which I found it necessary to take, I limited to thirty-six packages. The Nubian servants, three slaves, and the interpreter, composed my own retinue, but Aboo Sammat's entire caravan, counting bearers and soldiers, consisted altogether of about 250 men. I myself joined the main body at Koolongo, where preparations had just been completed for the passage of the Tondy, which was then at high flood.

The regular progress began on the 17th of November. A march of an hour brought us to the low plain of the Tondy, where four Bongo bearers were ready for me with a kind of bedstead, on which I reclined at my ease as they conveyed me upon their shoulders above the many places which were marshy or choked with rushes, till they reached the ferry that Aboo Sammat had arranged. This ferry consisted of a great raft of straw, upon which the packages were laid in separate lots, and to which most of the bearers clung

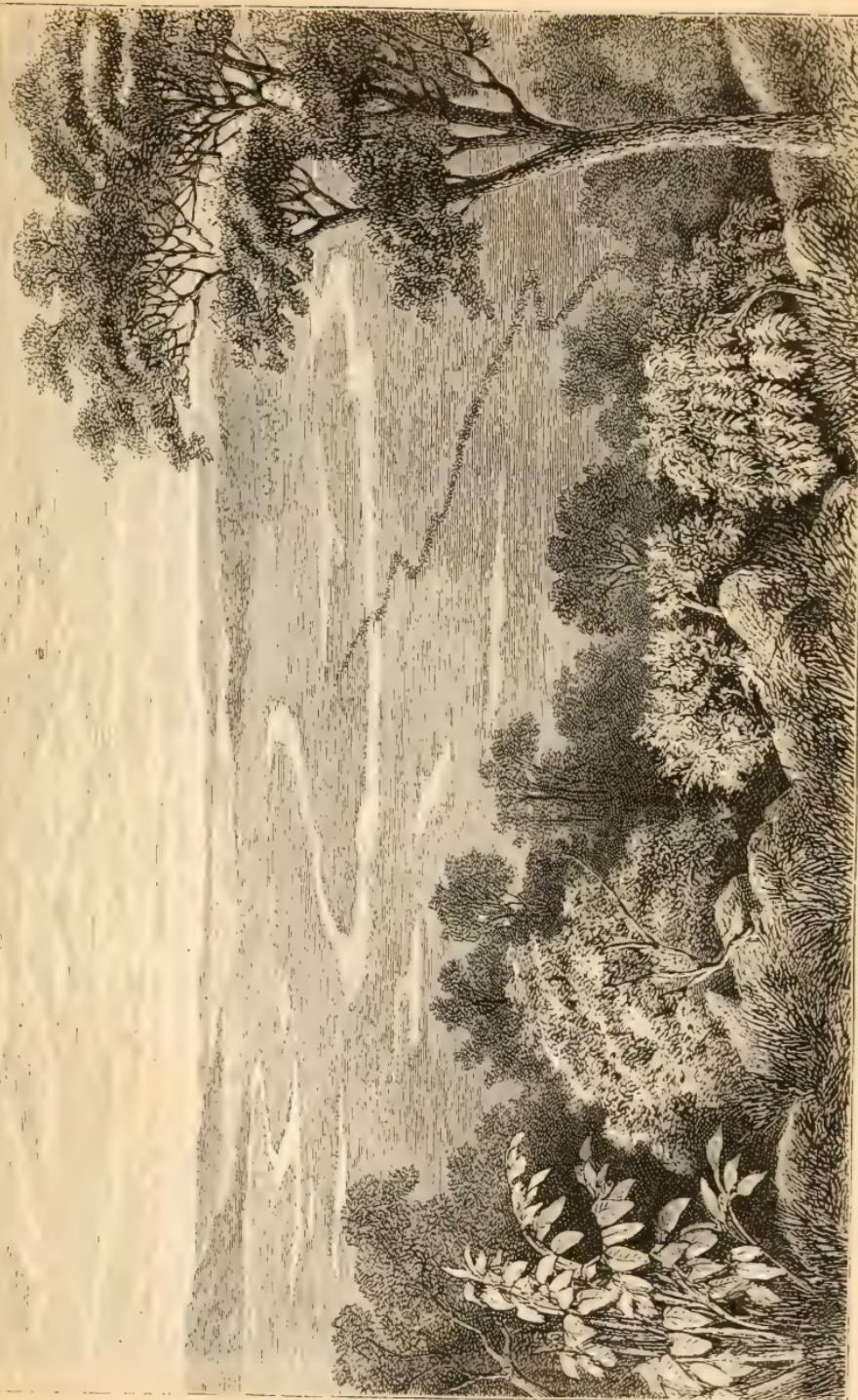
while it was towed across by a number of swimmers who were accustomed to the stream. The Nubians floundered like fish in the strong current, and had some work to do in saving many a "colli," which, in the unsteadiness of the passage, was thrown out of its equilibrium. The river, by its right bank, was running at the rate of 120 feet a minute and was about 200 feet across. Nearly exhausted as I was by the violence of the stream, when I approached the further side I was grasped hand and foot by a number of the swimmers, who brought me to land as if I had been a drowning man.

Beyond the river the land was less affected by any inundation, and after a few minutes we came to a steep rocky highland which bounded the way to the south. Rising to an elevation of little more than 200 feet, we had a fine open view of the depressed tract of land through which the Tondy meanders. Its windings were marked by reedy banks ; the mid-day sun gleamed upon the mirror of various backwaters, and the distance revealed a series of wooded undulations. In a thin dark thread, the caravan wound itself at my feet along the green landscape, as I have endeavoured to depict it in the annexed illustration. The height on which we stood was graced by a beautiful grove, where I observed a fresh characteristic of the region, viz., the alder-like Vatica, a tree of no great size, but which now appeared in detached clumps.

It was getting late in the day before we had assembled our whole troop upon the plateau. Very short, consequently, was our march before we halted for the night. The spot selected for the purpose had formerly been a small Seriba belonging to Ghattas ; but in consequence of the desertion of the Bongo who had settled there, and of the difficulty of maintaining any intercourse with other Seribas during the rainy season, it had been abandoned. It was a district of utter desolation, far away from any other settlements.

A brook, which in July and August becomes swollen to a considerable stream, flowed past our quarters for the night, and joined the Tondy at the distance of a few leagues. To this rivulet, which has its source in the Madi country, in lat. $5^{\circ} 10' N.$, the Bongo give the name of the Doggoroo, whilst it is known as the Lehssy in the districts which divide the territories of the Bongo from the Niam-niam. Up the stream we followed its course for two hours, keeping along the edge of a pleasant park-like country, till we arrived at some thickets, which we had to penetrate in order to reach the banks of the stream. Sluggish here was the water's pace ; its breadth was about thirty feet, and it was sufficiently

THE DEPRESSION OF THE TONDY.





shallow to be waded through, scarcely rising above our hips; on our return in the following year the passage involved us in considerable difficulty. Beyond the Doggoroo the ground made a gradual but decided rise, and for more than forty miles the ascent was continuous. It was the first elevation of the ground of any importance which I had yet seen anywhere south of the Gazelle; for here was a broad offshoot of the southern highlands, which, according to the statements of the natives, serve as a watershed for the coalescing streams of the Tondy and the Dyow (Roah).

After we had proceeded in a south-easterly direction till we had accomplished about a third of our journey to Sabby, the Seriba of Mohammed Aboo Sammat, we had at no great distance the territory of the Dinka upon our left. The adjacent clan is called the Goak, and a large number of the Bongo have taken refuge amongst them to escape the aggressions and stern oppression of the Nubians. The Dinka, for their part, impressed the strange intruders with such awe that, since Malzac (the well-known French adventurer, who for several years took up his quarters on the Rohl), no one has repeated the attempt to establish a settlement in their district. It is simply their wealth in cattle that is a temptation to occasional raids, which are studiously accomplished as far as possible without bloodshed. On the last stage between the Tondy and the Doggoroo we repeatedly came across the traces of elephants; but the trenches which had been designed to catch them had not as yet been a success. Elephants seem to prefer to make their way along the narrow paths which have been already trodden by the foot of man through the high grass, notwithstanding that they are not sufficiently broad to admit a quarter of their huge bodies.

After the rains are over and the steppe-burning accomplished, the landscape reminded me very much of the late autumn-time of our own latitudes. Many trees were entirely destitute of foliage; the ground beneath them being strewn with yellow leaves or covered with pale sere grass as far as the conflagration had spared it. One charming tree, a kind of Humboldtia, was conspicuous amidst the shadowy groves. It has seed-vessels a foot long, the seed itself being as large as a dollar, whilst its magnificent leaf is a beautiful ornament to the wood-scenery wherever it abounds. The foliage generally is so light that it was quite easy to penetrate into these woods, which constantly and agreeably relieved the barren aspect of the region.

A considerable number of antelopes from various quarters had

been killed by the hour in the hour in which we encamped for the night in a forest glade. These antelopes belonged to the Waterbocks (*A. ellipsiprymnna*), of which the head is very remarkable, on account of the large excrescences which obtrude from the side of the nostrils, in the same way as in the wild buffalo. It has a fine sweeping pair of horns, which crown its brow. The hair of this species of Waterbock is extremely long and soft, and its skin is a very favourite decoration of the Niam-niam. There is but little difficulty



THE CENTRAL AFRICAN WATERBOCK.

(*Antilope ellipsiprymnna*.)

in getting an aim at this animal, as its white haunches soon betray it amid the gloom of the forest, where it is more frequently found either quite solitary or in very small groups. I very much relished the tender flesh of the fawn, although it was somewhat deficient in fat.

When morning dawned the only remnant of our supper was a

pile of crushed bones ; for neither skin nor bristle had been spared by the greedy negroes. The beast of prey despairs what a voracious man will devour ; the beast rejects what is tough, and gnaws only about the soft and supple joints, whilst man in his gluttony roasts the very skin, splits the bones, and swallows the marrow. Splintered bones, therefore, here in the lines of traffic, just as they do in the caverns of antiquity, afford a distinctive evidence of the existence of men, whilst bones that have been gnawed only attest the presence of lions, hyenas, jackals, and the like.

Few there are who have not read of the glory of the southern heavens ; rare is the traveller in the tropics who has not revelled in the splendid aspect of the great arch above when illumined by the shining of the moon. After a long hot march it may indeed happen that the traveller is far too weary and worn-out to be capable of appreciating the charm of any such beauties ; in passive indifference, stretched upon his back, he turns a listless eye upwards to the sky, till sleep overpowers him ; and thus unconsciously he loses the highest of poetic ecstacies. Soon the heaven bedecks itself with countless numbers of fleecy clouds, which separate as flakes of melting ice, and stand apart : the deep black firmament fills up the intervals, and gives a richer lustre to the stars ; then, circled by a rosy halo, rises the gentle moon, and casts her silver beams upon the latest straggler.

Meanwhile, far in the lonely wood, there has arisen, as it were, the tumult of a market ; the gossip of the chatterers is interrupted now and then by the authoritative word of command of some superior officer, while many a camp-fire is kindled and illuminates the distant scene. To protect himself against the chilly air of night, each separate bearer takes what pains he can, using what ashes he can get for his covering. Wreaths of smoke hover over the encampment, a sense of burning oppresses the eyes and makes sleep all but impossible, and thus the attention is ever and again arrested by the moving orbs in the heavens above. To the traveller it well might seem as if the curtain of a theatre had been raised, and revealed a picture of the infernal world where hundreds of black devils were roasting at as many flames. Such were my nightly experiences as often as I journeyed with a large number of bearers.

About noon on the third day, after marching about sixteen leagues from Koolongo, we arrived at Duggo, the chief Seriba of Shereefee, who maintained some small settlements in this remote wilderness. Notwithstanding the almost unlimited scope with regard to space,

he was on the bitterest terms of hostility with Aboo Sammat, his neighbour in the south. A regular medieval feud had broken out between them, the nominal cause of the quarrel being that one of Shereefee's female slaves had been maltreated, and, having taken refuge with Aboo Sammat, had not been restored; but the interchange of cuffs and blows had been the actual ground of the discord. When two months previously Aboo Sammat was despatching his ivory-produce of the year, consisting of about 300 packages, to the Meshera, it was seized by the negroes as it was being conveyed across Shereefee's district. These negroes attacked the defenceless bearers and massacred several of them; others they wounded with arrows and lances, till the whole caravan was over-powered, and every one throwing down his valuable burden made a precipitate flight.

Aboo Sammat, so far from taking the law into his own hands, had proceeded in the most legitimate way to demand compensation; but Shereefee, not satisfied with the wrong he had already perpetrated, spurred on his negroes to make repeated incursions upon his rival's territory. Sometimes he endeavoured to entice Aboo Sammat's Bongo people to desert, and sometimes sent his own to commit all manner of outrage and depredation. Many of the poor natives, the shuttlecocks of the fray, lost their lives in the contention; and I enriched my collection of skulls by some splendid specimens which I picked up on my way. "This was the spot," said Aboo to me, "where the thieves made their attack. You have seen for yourself, and should speak up for me."

Approaching the neighbourhood of the hostile Seriba we made a halt in the open country, about half a league away. To put a good face on the matter, and to make an impression upon Shereefee's people, everybody put on their best clothes, and Aboo Sammat's soldiers came out in all the gay colours of the fresh chintz which had just been acquired from the stores of the Meshera. Every precaution was taken to guard against a sudden attack, and patrols were sent out to protect the flanks of our extended line. Ambushed in the thickets, some armed Bongo were actually seen, but these outlying sentinels, as soon as they observed there was a white man in the caravan, having heard of my presence in the country, abstained from any exhibition of hostility. Thus unmolested we drew close up to the Seriba, and Mohammed's party bivouacked out in the open country. Meanwhile I was received in the most friendly manner by Shereefee's brother, who was here in charge, and

there was no disposition to act towards a Frank in any way that might involve difficulty at Khartoom.

The whole district, as I have mentioned, had been gradually rising in terraces all the way from the Tondy; and only just before we reached the Seriba, which was named Duggoo, after the superintendent of the place, had we marched continuously up-hill for half a league; no flowing water had hitherto been observed. On the south-west and south-east were visible the highlands in the distance, whilst in front of them were elevations of from 100 to 200 feet above the level of the adjacent vale. One of these elevations was very close to Duggoo in the north-east, whence from a bamboo-jungle there streamed in the rainy season a brook which fell into the Dyau. The recesses and caverns in the red iron-stone reminded me of the great grotto at Koolongo, with its swarms of fluttering bats (*Phyllostomus caffra*) and vast accumulation of guano.

The wide stretch of country between the Tondy and the Dyoor, extending some seventy miles, had but three years since been a populous district with many huts; now, however, it had only a few scattered habitations of the Bongo, which were grouped in the vicinity of either Aboo Sammat's or Shereefee's Seribas. Since the Bongo had been expelled by the Dinka, nothing but elephants and antelopes have found their pasture in those wild plains, which have once been cultivated. Occasionally the ruins of the burnt villages were still extant, rising above the rank grass. Nothing survived as direct evidence of the habitation of men; what scanty remnants of dwelling-places the first conflagration of the steppes had spared, either the ants or natural decay had soon destroyed. The only remaining vestiges of the occupation of the land are due to the richness of vegetation, and this has left its characteristic traces. I could specify some fifty or sixty plants which correspond so accurately with the weeds of other cultivated countries that they are significant tokens of a former presence of men. The preponderating Indian origin of all these plants is very observable, and a better acquaintance with the geographical facts connected with them would probably be as trustworthy an indication of the various migrations of an uncivilized people who have no history, as either their dialect or physical development.

Five leagues away from Duggoo we arrived at Dugguddoo, the second Seriba of Shereefee, where he was then resident. Many a slough and many a marsh had we to traverse on our progress, the result of the rain which had been falling for months. Midway we

paused for a rest beside the relics of a great Bongo village, where stood the ruins of a large fence of the same description as is seen around the present Seribas. In the very centre of the village had stood, as is commonly found, an exceedingly fine fig-tree (*F. lutea*), and there were besides, a large number of tombs constructed of blocks of stone and ornamented with strangely-carved posts; at some little distance was a number of handmills that had been left behind, destined for some years to come to be a memorial of the past. The spot, named after the previous governor, was called Pogao. Shortly afterwards we arrived at a charming little brook, known as the Mattyoo, which, under the shadow of a pleasant copse-wood, went babbling over its red rocky bed, making little cascades and rapids as it streamed along.

In consequence of the repeated burnings of the steppes, well-nigh all vegetation was now blighted and impoverished: the higher districts in particular presented an appearance of wretched desolation. Repeatedly, in the winter landscape of the tropics, there are seen trees standing in full foliage in the very midst of their dismantled neighbours; and the loss of leaf would seem to be hardly so much an unconditional consequence of the time of year as a collateral effect of locality or condition of the soil.

Incalculable in its effect upon the vegetation of Central Africa must be the influence of the annual steppe-burning, which is favoured by the dryness of the seasons. The ordinary soil becomes replaced by charcoal and ashes, which the rain, when it returns, as well as the wind, sweeps right away into the valleys. The rock is, for the most part, a very friable and weather-worn ironstone, and upon this alone has everything that grows to make good its footing. The distinction, therefore, as might be imagined, is very marked between vegetation under such conditions, and vegetation as it displays itself by the banks of rivers, where the abundant grass resists the progress of the fire, and where, moreover, a rich mould is formed by the decay of withered leaves. But even more than the impregnation of the soil with alkalies, does the violence of flames act upon the configuration of plants in general. Trees with immense stems, taking fire at the parts where they are lifeless through age, will die entirely; and, where the grass is exceptionally heavy, the fresh after-growth will perish at the roots, or in other places will be either crippled or stunted. Hence arises the want of those richly-foliaged and erect-stemmed specimens which are the pride of our own forests; hence the scarcity of trees which are either old or well developed; and

hence, too, the abnormal irregularity of form which is witnessed at the base of so many a stem and at the projection of so many a shoot.

Flowing without intermission all through the year, close by Dugguddoo, there is a brook which the Bongo have named the Tomburoo. Its water hurries on at the rate of 170 feet per minute, its depth hardly ever exceeds three feet, while its breadth varies from 20 feet to 50. Its banks, about four feet high, were bounded by land subject to inundations corresponding to the measurement of the stream. At a league's distance to the east, the general elevation of the soil began afresh.

Turning short off, almost at a right angle to our previous direction, our way beyond Duggoroo, after seven leagues over a country well-wooded and rich in game, led us to the borders of Aboo Sammat's territory. Once again the land began to rise, and appeared to be all but barren in watercourses of any kind.

In a bag, which one of my attendants constantly carried, I had a collection made of a number of the great land-snails which, after the termination of the rains, abounded in this region. The two kinds which appeared most common were *Limnicolaria nilotica* and *L. flammea*; of these, the former is rather more than four inches in length, the latter rather more than three. They invade the bushes and shrubs, and have a great partiality for the tender leaves of the numerous varieties of wild vine. They serve as food for a number of birds, the *Centropus monachus*, the cuckoo of the climate, in particular having a keen relish for them. Their shells are as thin as paper, a circumstance which, like the brittleness in the egg-shells of hens, testifies to the deficiency of chalk in the soil. I was in need of soap, and the chief object which I had in taking the trouble to collect these shells was to obtain what cretaceous matter I could, to enable me to make a supply, no other method of getting it occurring to my mind. At night we rested at a poor Seriba called Matwoly, where we were received in some dilapidated huts, as the place, together with all its Bongo adjuncts, for greater security against the attacks of Shereefee, was about to be abandoned.

The wearisome monotony of the woods, now generally stripped of their foliage, was enlivened by the fresh green of the Combretum, which here long anticipates every other tree in putting forth its tender buds. Gaily it stands apart from the uniform grey and brown of the surrounding forest, thrown into yet higher relief by the yellow mass of withered grass below, and showing itself brightly from the half-shaded gloom of the wood beyond.

Distant four and a half leagues to the south lay Aboo Sammat's head Seriba, known as Sabby, the name of its Bongo chief. Half-way upon our march we crossed a considerable stream, which was called the Koddy. As we forded its breadth of twenty feet, we found the water rising above our hips. Here again the candelabra-euphorbia seemed to be abundant, after having never been seen since I left the eastern bank of the river Dyoor. An essential feature of the district between the Dyoor and the Robl is contributed by the small mushroom-shaped ant-hills which, found as they are in many a part of Tropical Africa, here cover the stony surface with their peculiar shapes. Formed exactly like the common mushroom, the separate erections of the *Termes mordax* are grouped in little colonies. The main difference between the tenements of these ants



MUSHROOM-SHAPED WHITE-ANT HILLS.

and those which construct conical domes as tall as a man, consists in this, that they have a definite altitude, which rarely exceeds thirty inches, and immediately that there is no further space they raise new turrets and form fresh colonies. The material, too, of which this species of *Termes* constructs its edifice is not of a ferruginous red, but is simply the grey alluvial clay of the place: it is so closely cemented together that it defies the most violent kicking to displace it, and is hardly less solid than brickwork. The natives are very glad to employ it for the construction of their huts; they break it into fragments with their clubs, and moisten it till its substance yields. By the Bongo it is called Kiddillikoo.

The red ferruginous clay is the only material out of which the great ants (*Termes bellicosus*) construct their buildings. These are

seldom found elsewhere than in a wood, where the mushroom shapes are never seen. The neighbourhood of Sabby especially abounded in these monuments of animal labour, and not a few of them were fifteen feet in height. In altitude greater than in breadth, they reared themselves like a large cupola surrounded by countless pillars and projecting towers.

As might be conjectured, there is no want amongst these woods of ant-hills such as these, which have ceased to be occupied, and which consequently have been adopted as lurking-places by various kinds of animals that shun the light and lead a troglodyte existence. Here skulks the aard-vark or earth-pig (*Orycteropus*); here gropes the African armadillo (*Manis*); hither resort wild boars of many a breed; here may be tracked the porcupine, the honey-weasel, or ratel; here go the zebra-ichneumons and the rank civet-cats; whilst here, perchance, may be found what in this land is rare, an occasional hyena.

After seven days' journeying over a country all but uninhabited, on the 23rd of November I found myself at the head Seriba of my friend and protector, who received me with true Oriental hospitality. First of all, he had had newly erected for my use three pleasant huts, enclosed in their own fence; his thoughtfulness had gone so far that he had provided me with several chairs and tables; he had sent to a Seriba, eight days' journey distant, to obtain some cows, that I might enjoy new milk every day; and, in short, he had taken the utmost pains to insure me the best and amplest provisions that the locality could supply. My attendants, too, who, together with their slaves, made up a party of thirteen, were entertained as freely as myself: everything contributed to keep them in good mood, and they were delighted jointly and severally to throw in their lot with mine.

The natives, when they saw not only their own superior, but the governors of other Seribas, treat me with such consideration, providing me with a palanquin for every brook, came to the conclusion that I was a magnate, and said to each other, "This white man is a lord over all the Turks"—Turks being the name by which the Nubians here wish to be known, although before a genuine Osmanli they would not have ventured to take such a title. As Aboo Sammat used jocosely to remark, they were accustomed at home to carry mud, but here they carry a gun instead. It was a matter of congratulation to myself that the people already had arrived at some apprehension of the superiority of an European. It set me at

my ease to observe that I had nothing to fear as to being mistaken by the natives for one of the same stock as the Nubian menials. Equally advantageous to me was it that the same impression prevailed amongst the Niam-niam and the distant Monbuttoo, whose territories I was approaching, and accordingly I entered upon my wanderings under what must be considered favourable auspices.

Situated in a depression between undulating hills which stretch from south-west to north-east, the settlement of Aboo Sammat was surrounded by numerous Bongo villages and fields. Here he centred an authority over his Bongo and Mitoo territories, which stretched away for no less than sixty miles.

At this period, when vegetation was at a standstill, the flora presented little novelty, and whatever I found corresponded very much with what I had already seen in the district between the Tondy and the Dyoor. The woody places around Sabby were generally somewhat thicker; there was neither the same expanse of low steppe-country, nor the same frequent interruption of woods by grassy plains. Corresponding to this density of growth of the forests there was a greater variety in the fauna.

The Bongo seemed here to arouse my interest more than at Ghattas's Seriba, where, on account of their longer period of subjection, they had gradually lost very many habits and peculiarities of their race. I accordingly spent a good deal of my leisure in making sketches of their dwellings and their furniture, and in my numerous excursions round the villages, I persisted in investigating everything, however immaterial it might seem, as though I were examining the vestiges of the prehistoric life of a palisaded colony. An exterior survey did not satisfy me, and I persevered till I gained admittance to the inside of several of the huts, so that I could institute a regular domestic investigation. Every corner was explored, and by this means many a strange implement was brought to light, and many an unexpected discovery made.

The granaries of the Bongo were now quite full, as the harvest was just over: there was consequently mirth and riot in the district, and many a night's rest did I find disturbed by the noisy orgies which re-echoed from the shadowy woods. The powers of shrieking were put forth to the uttermost. Like the rolling of the breakers of an angry sea, the noise rose and fell: alternate screechings and howlings reached my ears, and hundreds of men and women seemed to be trying which could scream the loudest. Incapable of closing an eye for sleep while such infernal outcry was around, I went

several times to inspect the frantic scene of merriment. Nights when the moon was bright were those most frequently selected for the boisterous revelry; the excuse alleged being that the mosquitoes would not let them rest, and therefore it was necessary to dance; but in truth, there was no nuisance of flies here worth consideration: I was not annoyed to anything like the same extent as upon my backward journey on the White Nile.

Go where I might, I found nothing but lamentation over the impoverishment and desolation of the land, yet those who complained were themselves responsible for its comfortless aspect. Whilst, through the migration of the people, the country towards the north during the last three years had been changed into a wilderness, the Bongo, who clung to their homes and remained on their settlements, had not only lost their former wealth in sheep, goats, and poultry, but had even been too much driven to extremities to continue their cultivation of corn, and were sufferers from what was little short of famine. They asserted that in the first year that the Khartoomers committed their depredations amongst them, they were so terrified lest all their sheep, and goats, and poultry should be carried off, that, without delay, they had them all killed, cooked, and eaten. Eye-witnesses were not wanting who told me what had been the astonishing quantities of poultry that once had teemed in every village; but when there ceased to be any security for any one to retain what he had, of course there ceased to be any interest in making a store. If the harvest were prolific so that the granaries were full, the settlers would revel in indulgence as long as their resources held out; but for the greater portion of the year they had to depend upon the produce of the woods and upon the proceeds of the chase, which had often no better game to yield than cats, lizards, and field-rats. Not that there was any actual fear of starvation, because the supply of edible tubers and wild fruits from the extensive woods was inexhaustible and not ill-adapted to a negro's digestion, and because there was an abundance of the seed of wild grasses to be collected, which replaced the scarcity of corn.

During the incessant excursions which I kept making round Sabby I was able to discriminate not less than twelve distinct species of antelopes, of which I was successful in shooting several. Frequently met with here is the antelope (*A. oreas*) which is known as the Eland. During the rainy months it gathers in little groups of about half-a-dozen in the drier districts on the heights, but through the winter it is, like all its kindred, confined to the levels

of the river-sides. Upon the steppes through which flow the brooklets in the proximity of Sabby the leucotis antelope is the most common of all game, and many is the herd I saw which might be reckoned at a hundred heads. Perhaps nowhere else in the whole of North-east Africa would any one have the chance of seeing such numerous herds of antelopes collected together as travellers in the south are accustomed to describe.

Of the more circumscribed district of the Nile the parts that are most prolific in game are on the north-west declivity of the Abyssinian highlands, on the Tacazze or Seteet, in the province of Taka: there it is not an unknown circumstance for herds to be found which exceed a total of 400 head, but they do not correspond in the remotest degree with those which are depicted in the published engravings of the South African hunt. Still poorer in numbers of individuals are the antelopes in Central Africa proper, where the uniform diffusion of men encloses smaller wastes than those which can alone provide large lairs for game.

One morning there arrived at the Seriba from the far distant boundaries of the Bongo several wild-looking men, armed with bows and arrows. In order to satisfy myself of the effectiveness of their weapons, I set up a mark at a short distance, consisting of an earthen vessel, in front of which I placed a good thick pad of straw, and over all I threw a stout serge coat. Defying all the coverings, the arrow penetrated the coat, made its way through the straw and knocked a hole in the earthenware, which was nearly half-an-inch thick.

Around Sabby the general security was so complete that, quite at my ease and entirely unarmed, I might have ranged the woods if there had been a certain immunity from being attacked by lions; and against this I was compelled to be on my guard as I penetrated the depths of the wilderness to secnre the novelties of vegetation, which could not fail to excite my curiosity. Although my vocation constrained me day after day to explore the recesses of the woods more thoroughly, and to make my way through places hitherto inaccessible, yet I never met with any untoward accident. At home I am quite aware that there are some who entertain the idea that every traveller in Central Africa is engaged in perpetual lion-fights, whilst, on the other hand, there are some who make the insinuating inquiry as to whether lions are ever really seen. In a degree both are right—both are in the avenue of truth. Lions are, in fact, universal, and *may* be met with anywhere; but

their numbers are not absolutely large, but only proportioned to the princely rank they hold in the scale of animal creation. Their appearance is always a proof of the proximity of the larger kinds of game. Corresponding to the line in history, which tells that forty generations of Mamelooks tyrannized over the people of Egypt, might be registered the line in the records of the animal kingdom, which might run that forty lions found subsistence in the land.

As the dormant condition of vegetation at the end of the rainy season afforded me little or no scope for my botanizing pursuits, I determined to employ my valuable time in another manner, and accordingly I spent December and January in a tour of considerable extent through the adjacent Mittoo country, visiting some Seribas recently established by Aboo Sammat, by means of which he had extended his frontiers far onwards towards the east. I obtained ten bearers for the transport of my baggage, and a Nubian captain of Aboo Sammat's company was expressly appointed to act as guide and to provide for my accommodation all along the route. I was also accompanied by three of my own Khartoom servants.

A short journey to the north-east brought us to Boiko, where, enclosed by a dense forest, was situated Aboo Sammat's harem. A lady here, the first wife, a daughter of the Niam-niam chief Wando, although she did not permit herself to be seen, was near at hand to do the honours: she was so far civilized that she entertained me with coffee and several Khartoom dishes.

Proceeding eastwards we reached the little river Tudyee, which, flowing past Sabby at a distance of about two leagues to the east, ultimately joins the Roah (the Nam Dyow of the Dinka); at this time of year it is about twenty feet deep, and murmurs along a channel from twenty to thirty feet wide; now and then it forms deep basins, which never fail to be full of fish. We made our first night-camp near a fine tamarind, which will probably for years to come be a landmark as conspicuous as it was at the time of my visit; it was the usual halting-place of all caravans from east to west, and the traces of previous encampments, dilapidated straw-huts, vestiges of fires and fragments of bones, bore ample testimony to the fact.

At this season a slight dew was perceptible towards five o'clock in the morning. The nights were calm and, in comparison with the day, considerably cooler than in summer, when in the interior of the huts there is hardly any difference in temperature to be distinguished. Throughout the day, however, a strong north wind

blew incessantly, which towards the afternoon increased almost to a hurricane. There is a peculiar charm in these early morning hours, and no one can wake from his repose in a night-camp in the wilderness without a sense of calm enjoyment of the delights of nature. As soon as the horizon reddens with the dawn the solitude is enlivened by a chorus of ring-doves, here the most frequent of their kind, and by the cackling of guinea-fowl. The traveller is aroused daily by their serenades, and, without much strain upon his imagination, he could almost persuade himself that he has been long resident in the same spot, so familiar does the cooing of the doves become.

As we were preparing to continue our march, some people came to meet us with some dismal intelligence from the neighbouring village of Geegyee. They said that on the previous night a Nubian soldier, who had laid himself down at the door of his hut, about five paces from the thorn-hedge, had been seized by a lion, and, before he could raise an alarm had been dragged off no one knew whither. I now learnt that this district had for some years been infested with lions, and that lately the casualties had been so frequent that the greater part of the inhabitants of Geegyee had migrated in consequence. The entire village would have been transplanted long ago, but the lions had been always found to follow every change of position. At seven o'clock in the morning we reached the ill-omened spot, the poorest of neglected villages, surrounded by woods. A thorn-hedge formed its enclosure, but nowhere could we discover an entrance. Although the sun was now high, the inhabitants, terrified lest the lions should be near, were still sitting either on the tops of their roofs or on the piles that supported their granaries. Speechless and depressed with fear, my people proceeded on their journey : every one kept his gun in hand, and the bearers, listening anxiously at every rustle that broke the stillness, peered carefully after any traces of the dreaded foe.

After a good day's march we arrived at Aboo Sammat's Seriba Dokkuttoo, lying on the extreme east of the frontier of the Bongo; it was about twenty miles from the chief Seriba Sabby, being somewhat further to the south. Half a league before we reached Dokkuttoo we had crossed a considerable, though only periodical stream, called the Mokloio. It was now five feet deep, meandering over a low flat, fifty feet wide, to join the Roah.

The Roah is a river of about the same size as the Tondy, with which it finally unites itself ; it here makes a remarkable bend from south-

east to north-east, but its general direction for some distance in this district is due north ; the stream flowed between banks twenty or thirty feet in height; its average width was full forty feet, whilst it was only three feet deep; the velocity of the current was one hundred and twenty feet a minute. The grass flat covered by the Roah at the time of its inundation is not so wide as that covered by the Tondy at Koolongo; it measured barely half a league across, and I therefore conclude that this river carries northward a volume of water smaller than the Tondy.

The Bongo were most assiduous in securing the large supplies of fish offered by the Roah. Across the stream in many places was thrown a kind of weir like a *chevaux de frise*; this they stopped up with bunches of grass and so formed a small dam; over the open places were set creels, and altogether a rich produce rarely failed to be obtained. Some miles up the river, where the banks are shut in by impenetrable reeds, is a favourite resort of hippopotamuses, and it was said that, two years previously, the natives had killed no less than thirty in a single day. The brutes had been driven by the low condition of the water to seek the deeper basins of the river-bed, whence all escape was impossible.

We remained in Dokkuttoo for two days, of which I made the most by excursions in the neighbourhood. A small slave caravan, containing one hundred and fifty girls and children, happened to be passing through the Seriba; it was conducted by traders coming from Ghattas's and Agahd's territory in the east. The whole party was huddled together for the night in a couple of huts, several old female slaves being entrusted with the supervision of the children. I was a witness of the arrangements for the evening meal, and, contrary to my expectations, found that everything was conducted with much system and regularity. The old Bongo people of the neighbouring villages had brought fifty bowls of dokhn-groats, and as many more containing sauces prepared from sesame-oil, Hyptis-pap, and dried and powdered meat or fish, and other comestibles of gourds and wild Melochia.

My own entertainment was well provided for, and the agent had an extra bullock slaughtered in order that my little company should not proceed without the supply of meat necessary for the journey. Every mouthful of food that I swallowed in this unhappy country was a reproach to the conscience, but the voice of hunger drowned every higher emotion ;* even the bread that we ate had been forced

* “Ventre affamé n'a point d'oreilles.”—*Lafontaine*.

from the very poorest in the season of their harvest when their joy, such as it was, was at its height ; they probably had neither cow nor goat, and their little children were in peril of dying of starvation and only dragged out a miserable existence by scraping up roots. The meat, in the abundance of which we were revelling, had been stolen from poor savages, who pay almost a divine homage to their beasts, and who answer with their blood for the stubbornness with which they defend their cows, which they hold dearer than wife or child.

Leaving Dokkuttoo, we proceeded for three leagues to the south, passing through the light bushwood that skirted the left bank of the Roah. The woods lay close down to the river as it flowed between its rocky banks. We crossed the stream near some huts, already inhabited by Mittoo, of which the name of the local chief was Degbe. Further south our path again and again crossed wide meadow-flats containing water-basins almost as large as lakes, which, as they had no perceptible current, had every appearance of being ancient beds of the Roah. Several larger kinds of antelopes, water-bocks, and hartebeests appeared, and a herd of thirty leucotis challenged me to a chase. At night, at our bivouac in the forest, we enjoyed in consequence a fine feast of the savoury game. Between the Roah and the Rohl the previous uniformity of the rocks began to be broken by projections of gneiss and by scattered hills. About ten leagues from Ngahma we passed a remarkable spot of this kind, where huge blocks of stone rose in mounds from which colossal obelisks might be hewn. These elevated places alternated with extensive flats level as a table top.

Ngahma was Aboo Sammat's most important settlement amongst the Mittoo. It lies in a S.S.E. direction from Dukkuttoo and derives its name from the elder of the people, who, with his twenty wives, resides at no great distance ; by the natives it is called Mittoo-mor. From Ngahma I turned north-east towards Dimindoh, a small settlement of elephant-hunters belonging to Ghattas's "Gebel company," as the people style his establishments on the Bahr-el-Gebel. The district was the highest elevation between the Roah and the Rohl, the country being more diversified by defiles, clefts, and periodic streams than that which I had previously traversed. Dimindoh lay on the further bank of a little river called the Wohko, which, during our march, we had repeatedly to cross. The stream flows over a course of some seventy miles without any perceptible increase in its dimensions, a peculiarity that I have again and again

observed in many other small rivers, which seem to flow across wide tracts of country unchanged in their condition by the affluence of any spring or running brook.

An excellent reception awaited me in Dimindoh. The hunting-village had been lately built of straw and bamboo at a large outlay, and there were regular straw palaces, of which the new domes and roofs gleamed with all the golden glory of Ceres. To say the very least, our rest was quite undisturbed by rats, and the idyllic abodes still retained the pleasant aroma of the meadows. I had no cause to complain of the entertainment in any of the smaller Seribas. I was always supplied with milk and with all kinds of meal. The traditional spirit-distillery of Ghattas's people was here also in full swing, and they brought to me, in gourd-shells, a concoction which was not so utterly bad as that at Gurfala.

The chief Seriba of this eastern section of Ghattas's establishments lies only a league and a half to the north-east of Dimindoh, and was called Dangadduloo, after a certain Danga, who had been appointed the head of the Mittoo of the district. In 1863 the brothers Poncet of Khartoom had ceded to Ghattas their settlements amongst the Agar, on the Rohl, in order to found fresh establishments in the following year near the cataracts of that river, among the Lehssy. The Agar had managed to obtain possession of a considerable quantity of firearms and ammunition, and had made themselves so formidable that the Khartoomers had not ventured to rebuild the Seriba that had been destroyed: for that reason, the settlements of Ghattas had receded southwards to the region in which I now found myself. We had crossed the Wohko for the second time at Dimindoh, where its bed was about fifteen feet deep: its course is generally due north, but here it bends at a right angle to the east, as if seeking the shortest route to join the Rohl. The little river abounds in shells, especially in *Anodontæ*, which are turned to many domestic uses by the natives, while the massive *Etheria Cailliaudii*, not unlike the oyster, forms continuous banks in all these minor streams.

The Mittoo of this district are called Gheree. Southwards and far to the east of the Rohl the general name of Moro is applied to the country, and as tribes of distinct people have settled there, it may no doubt be considered as a true geographical designation of the land itself; it is, however, the only example which came under my notice throughout the entire region of the appellation of the people and the land not being identical.

As I went on due east towards the Rohl, I was obliged to be carried, on account of having a sore foot. This I found a matter of some difficulty, on account of the want of any suitable litter, and because the paths were all so narrow that there was no space for two persons to move abreast, while the difficulty was still further increased by the negroes refusing to carry the heavy angarebs in any way except upon their heads. Wherever Islamism has its sway in Africa, it appears never to be the fashion for any one to allow himself to be carried: this arises from a religious scruple which might with advantage be applied by Europeans to nations under their protection. A strict Mohammedan reckons it an actual sin to employ a man as a vehicle, and such a sentiment is very remarkable in a people who set no limits to their spirit of oppression. It is a known fact that a Mohammedan, though he cannot refuse to recognize a negro, denying the faith, as being *a man*, has not the faintest idea of his being entitled to any rights of humanity.

The country on the left bank of the Wohko appeared well cultivated, and we frequently passed through fields from which crops of Penicillaria had been gathered. Three leagues from Dangadduloo there was some low meadow land, and, for the first time since leaving the Dyoor, I saw an extensive range of borassus-palms, their lofty stems, 80 feet in height, crowned with waving plumes of fan-shaped leaves. Beneath their shade nestled the huts of the Mittoo chief Bai, with whom we took our noonday rest. In the afternoon we retraced our steps for a couple of leagues, in order to put up for the night in the village of another chief, named Gahdy. Towards the north-east some important heights now showed themselves on the horizon beyond the Rohl, and after a while I was able to settle certain angles so as to determine their relative bearings. By this means, for the first time, I ascertained that my route must be near the points which had been reached by former travellers, and I could with certainty identify Girkeny, relatively about 200 feet high, with the locality marked on Petherick's map.

It afforded me much amusement to watch the natives at their ordinary occupations in their pent-up dwellings, and my portfolio was enriched by the drawings of many of the household utensils, as well as of the personal ornaments which the Mittoo women possess in great abundance.

Just behind the village we came once more upon the Wohko, which had here more perfectly assumed the aspect of a river, being

forty feet in width. It had now entered upon the wide low-lying steppe which extends to the western shores of the Rohl. We were nearly two hours in crossing this tract, which was densely covered with grass so high that, although in my litter I was six feet above the ground, I had to raise myself to catch sight of the adjacent mountains.

It is worthy of notice how all the rivers that I visited in this region, such as the Dyoor, the Paongo, the Tondy, the Roah, and the Rohl, of which the course was almost directly from south to north, in spite of the slight diminution of the velocity of the earth's rotation in these low latitudes of 6° or 8° , follow that law, exemplified in all rivers flowing northwards, and which is dependent on the rate of rotation of the earth. The course of all alike was nearly coincident with the eastern edge of the uniform steppes that covered the districts subject to their inundations.* Along the western shore of the Dyoor and Paongo the steppes in many places could not be crossed in much less than an hour, whilst those on the east could be traversed in little more than ten minutes. In the same way it takes forty minutes to cross the western flats on the Tondy near Koolongo, but those on the opposite bank are easily passed in a sixth of the time. Here, too, upon the Rohl there are no flats at all upon the right-hand shore, but the river for some distance washes past a steepish bank on which lies Ghattas's Seriba Awoory.

The Rohl contains a much larger volume of water than the Tondy, and near Awoory its bed divides into several branches, which in the winter are separated by sand-banks of considerable height. In the higher parts some stagnant pools remain, which, as they evaporate, fill the lowland with swampy humour. On the 17th of December I found the width of the river to be seventy feet; its depth was only about two feet and a half, but it was overhung by sandy banks twenty feet high, which were covered with reeds; its current moved at the moderate rate of about a hundred feet a minute. The river must offer an imposing sight in the height of the rainy season, when the plains are entirely under water; it must then, apparently, rival the Doory, although it does not contain more than a third of the quantity of water. Marked on existing maps under the name of Rohl, it is called by the Dinka the Nam-Rohl, *i.e.*, the river of the "Rohl," which is a tribe of the Dinka people. The Mittoo, the Madi, and other tribes along its course give it the name of Yahlo,

* It is remarkable that Livingstone noticed the same fact (only on the other side), in several of the rivers flowing northwards, south of the equator.

whilst among the Bongo it is known as the Dyoellebe. This is a fresh instance of what may be found throughout Africa, where the names of rivers, towns, and chiefs continually recur, and where Ronga and Mundo are almost as common as Columbus, Franklin, and Jackson in North America. The term Kaddo or Kodda, which appears on some maps, seems superfluous, since in both the Mittoo and Behl dialects the word means only "a river," or generally "water."

The natives around Awoory are called Sohfy, and are the same as the Rohl, who dwell further east. Their language in some respects resembles those of the Mittoo and the Bongo, although there are points in which it differs materially from both. In appearance and habits, the Sohfy bear a close affinity to the Mittoo. The three mountains to the north of Awoory are also inhabited by the Sohfy; Girkeny, the loftiest of these, is about three leagues distant, and consists of a bright mass of gneiss, which descends abruptly towards the south in precipices 200 feet apart. Petherick's route in 1863, between Aweel and Yirri, lay across this mountain. Nearer the Seriba is a little hill, with its villages of Nyeddy, Yei, and Madoory, all of which are tributary to Ghattas.

About a day's journey to the north-east there rises a lofty table-land, upon which the name of Khartoom has been conferred by the natives, in order to denote its importance and impregnability as a stronghold. Its inhabitants are respected by the people of the Seriba for their bravery in war, and are particularly renowned for their skill in archery: although they have been repeatedly attacked, the aggressors, ever unsuccessful, have been obliged to retreat with a large number of killed and wounded. A few weeks previously the population of this Mount Khartoom had attempted to surprise the Seriba, which most probably would not have escaped entire destruction, if the garrison of the neighbouring Seriba of the Poncets had not opportunely come to its relief.

The Nubians apply the general term of Dyoor to all the tribes on the Rohl to the south of the Dinka territory, although the tribes themselves, having nothing in common either in language, origin, or customs with the the Dyoor of the west (a Shillook tribe), repudiate the definition. The designation was adopted from the Dinka, who thus distinguish all tribes that do not devote themselves to cattle-breeding. Petherick was in error when he imagined that the Dyoor country known to him in his earlier travels extended so far as to include the Rohl: he would have escaped his misapprehension if he

had only noted down a few of the characteristic idioms of their language.

Whilst I was in Awoory my foot became so much worse that for two days I was almost entirely incapacitated.

Unable to carry out my intended trip to the attractive mountains of the neighbourhood, I had no alternative but to submit to my disappointment, and, without accomplishing my hopes, I was compelled to bid farewell to Awoory. For six days I had been confined to my litter, and meanwhile all search for plants, all the enticements of the chase, and all investigation of the implements peculiar to the villages had to be given up. Enthroned again on the heads of four sturdy negroes, I proceeded on my way.

Until we passed the Rohl the road lay in a S.S.E. direction, close along its right-hand bank. Inland, the country appeared to ascend in gently-rising terraces, but the character of the vegetation continued entirely unaltered, the bush-forest being composed of trees and shrubs of the same kind that I had observed ever since we had set foot upon the red soil. At the place of our transit the stream was undivided; but, although it was 200 feet in breadth, the water was little more than knee-deep. The numbers of fish were quite surprising, and our negroes amused themselves by darting with their arrows at the swarms of little perch, never failing to make good their aim.

On the opposite bank we entered the territory of another small but distinct tribe called the Lehssy, whose dialect differs from both Mittoo and Sohfy. Its narrow limits extend for a few leagues to the east of the river as far as Kirmo, which was one of the places visited by Petherick. Beyond again are the settlements of the Bohfy, in whose territory, a day's journey to the east of Mvolo, Agahd maintains a Seriba, which is situated on the Ayi, a river which, according to Petherick, contains less water than the Rohl, and joins the Dyamid before it enters the Bahr-el-Gebel. To the north of the Bohfy dwell the Behl, who, together with the Agar and Sohfy, possess such wealth of cattle as to provoke continual raids on the part of the owners of the Seribas. Behind the Behl again, towards the Bahr-el-Gebel, are the Atwol, a people much feared for their warlike qualities, rendering the approaches to the Meshera of that river so unsafe that caravans are often in considerable danger of attack.

After crossing the Rohl we proceeded a mile or two to the S.E., and arrived at Poncet's Seriba in Mvolo. The character of the

scenery had now entirely changed, and large blocks of granite, at one time in solid cubes, at another in pointed obelisks, started from the ground. On the north of the Seriba, and a little above the place where we forded the river in coming from Awoory, these rocky projections caused the stream to fall into rapids, which, on a reduced scale, bore a resemblance to a cataract of the Nile. This chain of scattered rocks, which runs across the country from west to east, has been mentioned by Petherick ('Travels in Africa,' vol. ii.) as extending to the south of the village of Dugwara.

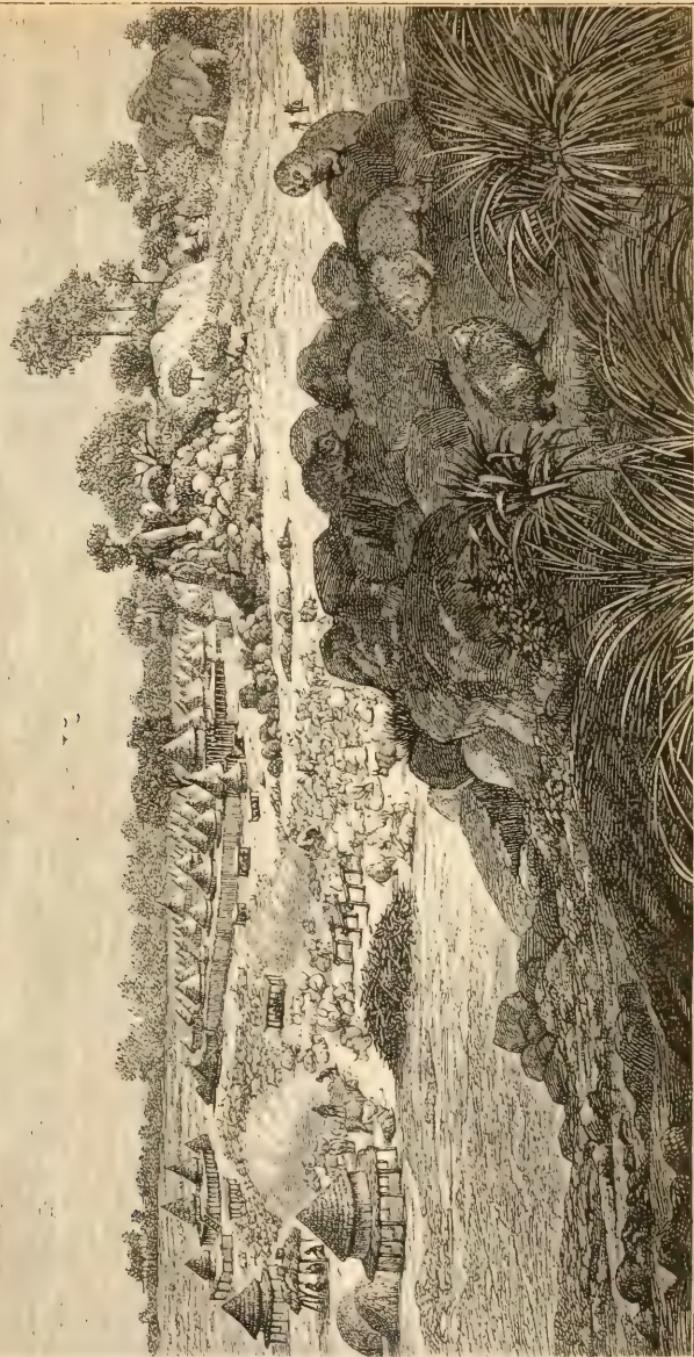
The inhabitants of Mvolo call themselves Lehssy, and in many particulars of their habits they resemble the Mittoo and Bongo.

The district produces plenty of corn, and with its ample opportunities for hunting and fishing supports a tolerably large population, which has every appearance of being well fed. The Lehssy generally are of a medium height, but I came across individuals of a strength of build such as I saw nowhere else except among the Niam-niam. I was also struck by the frequent occurrence of feet and hands disproportionately large. Dongolo, the native overseer of Mvolo, was, on account of his stoutness, called "bermeel," a barrel; and another of the inhabitants was nicknamed "elephant-foot."

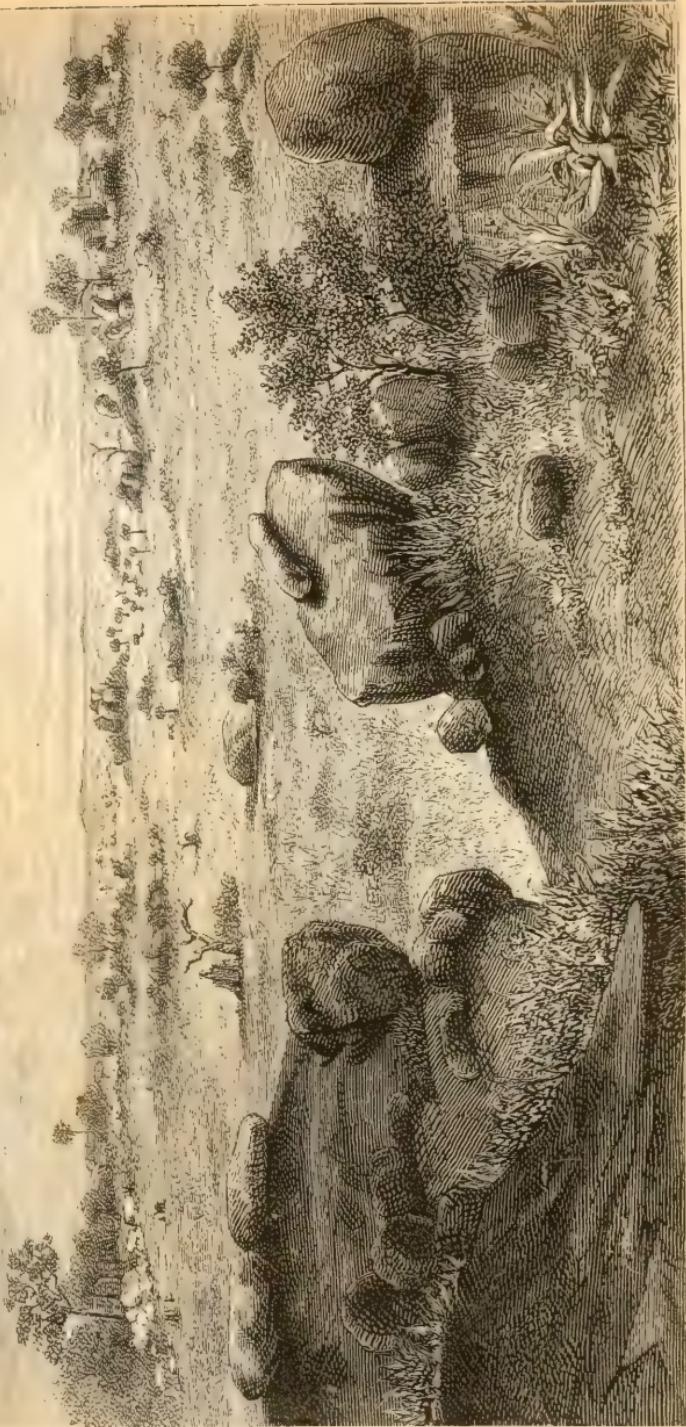
The Seriba, like its environs, was unique of its kind. The formidable appearance of the confused pile-work would have spoilt the night's rest of any one who had a very sensitive imagination. Something like a picture I remember of the Antiquary's dream, only without the sea, did the complication of huts stand out against the tall blocks of granite from which the fan-palms started like proud columns. The huts themselves, on their platform of clay, were like paper cones on a flat table. In front was the great farm-yard, with its hundreds of cattle under the charge of Dinka servants.

Quite in keeping with the fantastic scenery and eccentric architecture is the peculiarity of the rock-rabbits that dwell among the crevices of the gneiss. Immediately after sunset, or before sunrise, they can be seen everywhere, squatting like marmots at the entrance to their holes, into which, at the approach of danger, they dart with wonderful snorts and grunts. The noise they make has caused the Nubians to bestow upon them the general name of "kako." There is, however, a great variety of species, hardly distinguishable from each other, scattered throughout the Nile countries, every district seeming to present its own special representative of the race.

On the third day after my arrival in Mvolo, I was once more on my feet and able to take an excursion to some rapids about half a







league to the north-east. The river divides into three branches, and rushes impetuously over a bed chequered with blocks of granite. Two of the larger islands were covered with dense bush-woods, and a charming hedge of borassus-palm lined the banks. The main-stream passes in equal parts through the northern and southern arms. The first of these forms a precipitous fall of fifty feet, and, wildly foaming, dashes into the hollow among the rocks—the entire descent of the river at these rapids being at least a hundred feet. The river makes a bend round the Seriba, and a quarter of a league to the east, above the falls, it is once more flowing in its ordinary bed, which is a hundred feet wide. The smooth blocks of stone were as clean as marble, and the water between was as clear as crystal; the fan-palms and luxuriant bushes spread a cooling shade over the pools, and everything conspired to form a spot that might be consecrated to the wood-nymphs and to the deities of the streams. It was a place most tempting for a bath—a pleasure from which I had long been debarred.

Mvolo itself had never been actually visited by its former owners, but in 1859 Jules Poncet, during the course of his extensive elephant-hunts, had crossed the Rohl somewhere below this spot.* The route of the British Consul, J. Petherick, in 1863, lay along the opposite bank of the Rohl, and through Dugwara.

On starting afresh upon my journey to the west, I was accompanied by a small herd of cows, calves, and sheep—a present from the Controller, who, moreover, forced an excellent donkey upon my acceptance.

After a stiff march of seven leagues and a-half, through a district with few watering-places, and little interest beyond occasional clumps of the lofty kobbo-tree (*Humboldtia*), we were once more in the territory of the Mittoo, and had reached one of Poncet's smaller Seribas, called Legby. There was a second Seriba, named Nyoli, about three leagues to the south-east, which I did not visit, as its inhabitants were all busied with a grand *battue* for elands. These Seribas in the Mittoo country had only been founded in the previous year—they were on the direct road to the Monbutto, and had been intentionally pushed forward towards the territory of the Madi, in order to ensure advantageous quarters for elephant-hunting.

* ‘Le Fleuve Blanc:—Notes géographiques de Jules Poncet,’ is the best publication on the White Nile that I know. It gives reliable details of J. Poncet's interesting journey, and specifies many characteristics, founded on some years' experience, of the different people of the district.

The greater part of this region, which previously had been a sort of No-man's-land, had been recently appropriated to himself by a successful *coup* of the enterprising Aboo Sammat. From Legby to Ngahma was another five and a half leagues. The road descended, in a W.N.W. direction, straight down to the Wohko, which we now crossed for the fourth time. We had also to ford two other of the rivulets that traverse the country, which is a good deal broken by hills and eminences. The ground had been quite cleared by the burning of the steppe, and although there had been no rain, a number of perennial plants were sprouting up and covering the bare surface of the soil with their variegated bloom.

While in Ngahma, I heard that Aboo Sammat, with his entire fighting force, had withdrawn from Sabby, for the purpose of inspecting his numerous Seribas in the south. It was his first year of possession, and he had gone to feel his way, preparatory to the taxation of the country. Meanwhile, all provisions had been exhausted in Sabby, and if I had ventured to return thither, it would have been at the risk of being starved. I therefore resolved to pursue my course in a southerly direction, in order to cast in my lot with Aboo Sammat, until the time drew near for our expedition to the Niam-niam country. The first halting-place at which we arrived, after a march of seven leagues, was the little Seriba Karo, in the Madi district. The road passed to the S.S.E. by a small mound of granite, of which the sterile ridges were inhabited by rock-rabbits; we then advanced over granite flats until we reached a spot where an extensive table-land lay open to the south. Once again we crossed the Wohko, and proceeded along its right bank. The river here has all the characteristics of a periodical stream, and was now standing in lagoon-like basins. The width of the stony bed, and the deep holes washed in the huge blocks of granite, which are covered to a considerable height with the mossy *Podostemonea*, are proofs of the abundance and violence of the water in the height of the rainy season. Looking W.S.W., I was greatly surprised by the unexpected sight of some elevated rocky peaks. Amongst them, and about four leagues distant, was the point called Wohba, near Deraggo, which I afterwards visited. This isolated range extends as far as the Wohko, and there terminates in a ridge 80 to 100 feet in height. Near Karo the stream forms a defile 40 to 50 feet deep, enclosed by regular hills. The banks, which were very steep, were concealed by the impenetrable shade of magnificent trees (*Hexalobus*), reminding me very much of the true chestnut.

From Karo I went on still southwards for three leagues to Reggo, another small Seriba belonging to Poncelet's company, and where the elephant-hunters were quartered. The road thither led chiefly through cultivated fields that had been planted with *Penicillaria*. I also for the first time observed the culture of the sweet potato (*Batatas*), a favourite food of the Niam-niam.

The first of January, 1870, appeared, beginning a new link in the unbroken chain of time. It was the second New Year that I had commenced in Central Africa, and although for me the day passed quietly and with no rejoicing, yet I was filled with thoughts of gratitude that I had been spared so long. Although one cloud and another might appear to loom in the uncertain future, yet the confidence I felt in my acclimatisation enabled me with good courage to proceed upon my wanderings.

The next place that we reached was Kurragera, the most southern point of Aboo Sammat's newly-acquired territory. The march had occupied about five hours, and on our way we had for the sixth time crossed the Wohko. Previously we had halted in the village of one of the Madi elders, who bore the melodious name of Kaffulukkoo; I had also the honour of an introduction to another chief, called Goggo, of whom I was able



GOGGO, A MITTOO-MADI CHIEF.

to secure a portrait. His imposing peruke was not of his own hair, nor indeed was it hair at all, but consisted of an artificial tissue of woven threads, which were soaked with yellow ochre and reeking with grease.

Kurragera's Seriba, like Aboo Sammat's other settlements, had been entirely cleared of its soldiers, and only the local overseer of the Madi remained to look after the corn-stores. Inside the palisade were piled thousands of the bearers' loads, each neatly packed into a circular bundle, and protected by the simple and effectual coverings made by the natives from leaves and straw. These packages contained a preliminary portion of the corn-stores. Almost every product of the soil that I have already described was here to be seen, and in addition were the sweet potatoes cultivated by the Madi.

Aboo Sammat at this time, with his whole available fighting force, was encamped on the Wohko about three leagues to the south. With the help of 250 soldiers, and more than 3000 Bongo and Mittoo bearers, he had put the entire country in the south and south-east, from beyond the Rohl nearly as far as the frontiers of the so-called Makkarakkah, under contribution. The tribes in the more immediate neighbourhood were the Madi-Kaya, the Abbakah, and Loobah, which manifestly occupied the same district to which, in 1863, Petherick's agent Awat made an expedition. Many chiefs submitted voluntarily to the taxation ; others remained hostile for a period, but afterwards surrendered all their stores to the enemy à discrédition. The region was so productive that the number of bearers did not nearly suffice to carry away the goods that had been seized. The enterprise was accomplished without any loss of blood.

I was compelled to stay for some days in Kurragera to await Aboo Sammat's return.

The butter-trees were now in full bloom. The milky juice that exudes from the stems of these trees reminds one of gutta-percha, which is a secretion of a species of the same order of plants (*Sapotaceæ*). I often saw the children making balls with the lumps of caoutchouc. In 1861, Franz Binder, the Transylvanian, formerly a merchant in Khartoom, brought a hundredweight of this india-rubber to Vienna, but although the material turned out very well in a technical point of view, the cost of its transport was too great for it ever to become an important article in the commerce of these lands.

On the 7th of January, Aboo Sammat, with the greater number

of his soldiers and bearers, returned to the Seriba. He wished to display his authority in a way that should make an impression upon me, and therefore set apart an entire day for festivities on a large scale. His people were divided according to their tribes into groups of 500, and each of these had to execute war-dances worthy of their commander. Aboo Sammat himself seemed ubiquitous; in a way that no other Nubian would have done without fancying himself degraded, he arrayed himself like a savage, and at one time with lance and shield, at another with bow and arrow, danced indefatigably at intervals from morning till night at the head of the several groups; he was a veritable Nyare-Goio, *i.e.*, master of the ceremonies; here he was dancing as a Bongo, there as a Mittoo; then he appeared in the coloured skin apron of the Niam-niam, and next in the costume of a Monbutto: he was at home everywhere, and had no difficulty in obtaining all the necessary changes of apparel.

Between the parts there was an incessant firing; the guns were loaded with whole handfuls of powder, so that it was several minutes before the clouds of smoke rolled away from the groups of dancers. The continual noise and dust tired me far more than the longest day's march I had ever undertaken.

On the following day the Kenoosian convoked an assembly of the newly-subjugated chiefs of the Madi, and in a long speech impressed upon them their obligations. I was a witness of the characteristic scene, and as the interpreter freely translated sentence by sentence to the negroes, I did not lose a word of Mohammed's oration. With terrible threats and imprecations he began by depicting in the blackest colours the frightful punishments that awaited them if they should disobey his orders, while at the same time he plumed himself upon his magnanimity.

"Look you!" he said; "I don't want your wives and children, nor do I intend to take your corn, but you must attend to the transport of my provisions; and I insist that there shall be no delay, or else the people in the Seriba will starve. You, Kurragera, must go to your villages, and gather together old and young, men and women: get all the boys who can carry anything, and all the girls who bring water from the brook, and you must order them one and all to be here early to-morrow; every one of them will have to convey the corn to Deraggo; the bales are of all sizes, and each may carry in proportion to his strength. But mark you this: if one of the bearers runs away, or if he throws down his load, I will tear out your eyes;

or if a package is stolen, I will have your head." And here Mohammed lifted a huge weapon like the sword of an ancient German knight, and brandished it rapidly over the head of the Madi chieftain. Then turning to another, he proceeded: "And I have something to say to you, Kaffulukkoo; I know that Poncet's people have been here lately, and have carried off two elephants; now how did they contrive to find them? Bribed you were, bribed so that you sent messengers to inform them where the elephants might be found. And you, Goggo, why do you permit such proceedings in your district? Now listen: if Poncet's people come back, you must shoot them; this must not happen again, or you shall pay for it with your life; and if any one of you takes ivory to a strange Seriba, I will have him burnt alive. Now, I think you understand pretty well what you ought to do. But I have something else to say, just to caution you in case you may have any intention of injuring my people. Perhaps, as a Turk may be walking alone, the negroes may creep into the grass, and shoot him with their arrows: what of that? Rats may bury themselves in the ground, and frogs and crabs may hide in their holes, but there is a way, you know, to find them out; snakes may creep about in the straw, but to that we can set fire. Or, perhaps, you will try to burn the steppes over our heads: never mind, I can light a fire too, and you shall pay dearly for your treachery. Do as you did before, and run away to the caves at Deraggo, and I will shoot at you there with shitata (cayenne pepper) from my elephant-rifle, and you will soon be glad enough, half choked and stupefied, to come out again and beg for mercy. Or, supposing the negroes try and poison the shallow khor, and any Turks drink that water and die—don't be expecting to fly away like birds, or to escape my vengeance!" And much more there was in the same strain.

I had sent my cattle from Ngahma direct to Sabby, and, after laying in a sufficient stock of provisions, I prepared to return as soon as I could to my head-quarters, in order to have time to complete the necessary arrangements for the campaign in the Niam-niam countries. Before leaving Kurragera, I witnessed another amusing scene in Aboo Sammat's endeavours to make the chiefs understand the number of bearers he required. Like most other people of Africa, the Madi can only count up to ten, everything above that number having to be denominated by gestures. At last some bundles of reeds were tied together in tens, and then the negro, although he could not express the number, compreh-

hended perfectly what was required of him. Kurragera was obliged to furnish 1530 bearers, and being asked whether he understood, made an affirmative gesture, took the immense bundle of reeds under his arm, and walked off gravely to his village. We moved on through the day in company with an enormous train of 2000 bearers of both sexes and of every age. Keeping on continually in a northerly direction, after a march of eight leagues we reached the Seriba Deraggo. The Deraggo mountains were visible several leagues distant to the north, and afforded some desirable stations for verifying my route. By the side of one of the Roah tributaries, called Gooloo, which, however, we did not cross, we halted for a while, and I employed the interval in shooting guineafowl, ordinary poultry in this district being somewhat scarce.

I spent one day in a visit to the neighbouring mountains, which, lying about a league to the east of the Seriba, extended for about three leagues to the north-east. I contented myself with mounting an eminence about 300 feet high, called Yongah. The western horizon and the mountains of Awoory were unfortunately obscured by a dense smoke from the burning of the steppe; but the little hills between Ngahma and Karo were distinctly visible. I also noticed in the W.S.W. a mountain known as Cere, which I afterwards saw again when returning from the Niam-niam countries, as I was passing along the basin of the Lehssy. The chain of Deraggo is formed of a bright-coloured gneiss. A valley broke in near the spot which I explored, and along the entrance the Madi had dug a row of pits forty feet deep for the purpose of catching elephants. Hither, from a wide circuit, they hunt the animals, which, hastily rushing into the valley, fall headlong into trenches which have been artfully concealed.

The Seriba Deraggo was situated in the eastern part of a valley gently sloping towards the mountains. From the depth of this depression there issued an important brook, whose bed at this season contained a series of huge pools. We now again turned westwards towards the Roah, in order that I might visit Kuddoo, the last of Aboo Sammat's Seribas, which lies exactly south of Dokkuttoo, and thirty miles higher up the river. We were obliged to make a wide *détour* to avoid the mountains, and, after a stiff march for five leagues in a W.N.W. direction, we at length reached our destination.

The Roah flows close by Kuddoo in a deep basin enclosed with forest, and describes a semicircle about the Seriba. The river was

now from thirty to fifty feet wide; in the rainy season it is as much as fifteen feet deep, whilst in the winter its depth rarely exceeds four or five feet. The channel of the river was here entirely overarched with verdure; in some places the lofty trees starting from the dense woods met across the water, and formed bowers of foliage, whilst the fallen stems below made natural bridges. Very feeble were the rays of light that penetrated to the surface of the water, and the long creepers trailed from the overhanging branches. The force of the current caught the pendants, and made the tree-tops bend and the leaves all rustle as though moved by the hands of spirits. Large monkeys found congenial habitation in the branches, the river vegetation offering many of the fruits on which they can subsist. At times the beauty and abundance of the blossoms surpassed anything that I had seen. Pre-eminent in splendour were the brilliant *Combretum*: the masses of bloom gleamed like torches amid the dark green of the thickets, whilst the golden sheen of the fruit intensified the marked contrast of the tints. Any attempt to give a detailed account of the beauties of Africa is entirely unavailing, and once again I refrain from wearying the reader with any further repetition of my admiration.

Leaving Kudoo, we marched for eight leagues near the left bank of the Roah, and across the numerous little watercourses that intersect the region, and flow down to the river on the right. At Degbe we re-entered the road along which we had travelled on our outward trip, and, passing through Dokkuttoo, we did not again quit our previous route all the way to Sabby.

On the 15th of January I once more re-entered the hospitable huts of Sabby, and was welcomed by the servants I had left behind, and almost overpowered by the joyful caresses of my dogs. This tour to the east had altogether extended over 210 miles, and I had thoroughly explored the territory of a people who had hitherto been almost unknown, even by name. I will now take a retrospect of the country I had just left, and give a brief summary of my observations on its political condition.

In default of a national designation for a group of tribes speaking almost the same dialect, and whose distinctive qualities appear mainly in their slight differences of apparel, I should prefer to follow the example of the Khartoomers, and call these people simply Mittoo; this name, however, only really belongs to the most northerly of the group, who call themselves Mittoo, or Mattoo, and there are four other tribes who consider themselves equally distinct

and independent, viz., the Madi,* the Madi-Kaya, the Abbakah, and the Loobah. Their collective country lies between the rivers Roah and Rohl, and for the most part is situated between lat. 5° and 6° N. Towards the north it stretches far as the territories of the Dinka tribes of the Rohl and Agar; on the south it is bounded by the eastern extremity of the Niam-niam.

All the Mittoo tribes are able to converse with each other, as their languages present only such minor differences of dialect as might be supposed would arise from their independent political position; the Niam-niam, on the other hand, with just the same plurality of tribes, preserve a uniformity of language which admits of scarcely any variety. The Mittoo dialects in some of their sounds resemble that of the Bongo, but taken as a whole, like all the distinctive languages of the larger nations of the Gazelle, the Mittoo and the Bongo have very little in common. As far as regards customs, dress, and household appliances, it must be admitted that the Mittoo tribes most nearly resemble the Bongo, and it almost might seem as if, in the history of their development, they formed a transition between them and the Niam-niam.

The subjection of the Mittoo to the Khartoomers must not be dated earlier than the year preceding my visit. Although the country in a limited sense had to a certain extent been partitioned amongst the arbitrary and advancing companies of the Upper Nile, and notwithstanding that its inhabitants had been in places reduced to a condition of vassalage similar to that under which the Dyoor and Bongo had been smarting for the last ten years, yet the entire subjugation of the southern tribes, the Loobah and Abbakah in particular, might still be described as incomplete. The Abbakah hitherto have been only occasionally subject to the incursions of slave-catchers and corn-stealers, and therefore they have neither the advantages nor the disadvantages, whatever they may be, of actual vassals.

In the scale of humanity all the Mittoo tribes are decidedly inferior to the Bongo: they are distinguished from them by a darker complexion, and by a bodily frame less adapted to sustain exertion or fatigue. During my visit to the Niam-niam countries, nearly all the Mittoo who were employed as bearers were afflicted with the guinea-worm. An undesirable prerogative is this that the race have gained, that they should nurture such a thorn in the

* These Madi, whose name is of frequent occurrence in Africa, have no connexion with the Madi of the upper part of the Bahr-el-Gebel.

flesh; for the guinea-worm is far from universal, and makes selections as to what diversities of human nature it shall choose to patronise.

I failed to obtain any satisfactory explanation of this debility of the Mittoo; their land is very productive, they are diligent agriculturists, and they cultivate many a variety of cereals and tuberous plants, as well as of oily and leguminous fruits. On account of its fertility the land requires but little labour in its culture, and throughout its extent displays a productiveness which

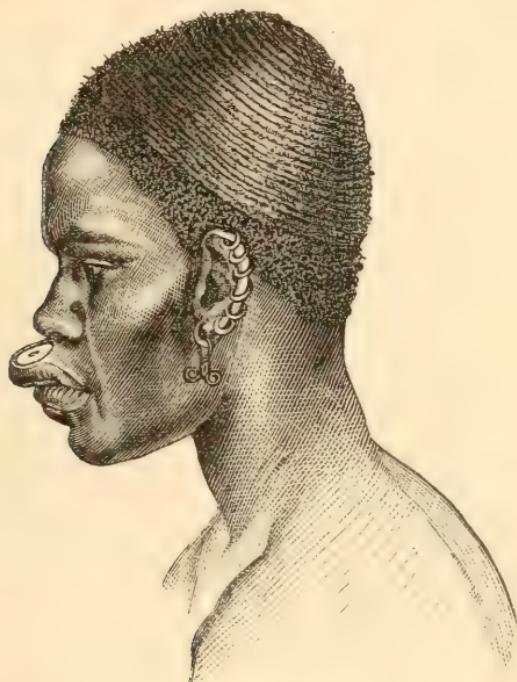


GOAT OF THE BONGO, MITOO, MOMVOO, AND BABUCKUR.

is only found for any continuance at rare intervals in the other countries that I visited. It is especially noticeable between lat. 5° and $5^{\circ} 30'$ N., in the districts on the Upper Roah and Wohko, which are liberal stores for the sterile Nubian settlements on either hand. The district of the Mbomo, which is adjacent to that of the Nganye of the Niam-niam, between the rivers Lehssy and Roah, is also pre-eminent among its neighbours for its extensive growth of maize.

The Mittoo breed the same domestic animals as the Pongo, viz.,

goats, dogs, and poultry; they possess no cattle, and are on that account ranked by the Dinka under the contemptuous designation of "Dyoor," which is intended to be synonymous with savages. They estimate the dog, however, in a very different way from the Bongo, and by their fondness for its flesh show that they are not many grades above the cannibal. Bernardin de S. Pierre, in his '*Études de la Nature*,' gives it as his opinion that to eat dog's flesh is the first step towards cannibalism; and certainly, when I



LORY, A MITTOO WOMAN.

enumerate to myself the peoples whom I visited who actually, more or less, devoured human flesh, and find that among them dogs were invariably considered a delicacy, I cannot but believe that there is some truth in the hypothesis.

The whole group of the Mittoo exhibits peculiarities by which it may be distinguished from its neighbours. The external adornment of the body, the costume, the ornaments, the mutilations which individuals undergo—in short, the general fashions—have all

a distinctive character of their own. The most remarkable of their habits is the revolting manner in which the women pierce and distort their lips; they seem to vie with each other in their mutilations, and their vanity in this respect, I believe, surpasses anything that may be found throughout Africa. Not satisfied with piercing the lower lip, they drag out the upper lip as well for the sake of symmetry.* To the observations I have made before about all African tribes, that in their attire they endeavour to imitate some part of the animal creation, I may add that they seem to show a special preference for copying any individual species for which they have a particular reverence. In this way it frequently happens that their superstition indirectly influences the habits of their daily life, and that their animal-worship finds expression in their dress. It is, however, difficult to find anything in nature collateral with the adornment of the Mittoo women; and it surpasses all effort to understand what ideal they can have in their imagination when they extend their lips into broad bills. If our supposition be correct, the Mittoo fashion perhaps only indicates a partiality for the spoonbills and the shovellers with which these ladies may have some spiritual affinity. The projections of the iron-clad lips are of service to give effect to an outbreak of anger, for by means of them the women can snap like an owl or a stork, or almost as well as the *Balaniceps Rex*.

Circular plates nearly as large as a crown piece, made variously of quartz, of ivory, or of horn, are inserted into the lips that have been stretched by the growth of years, and these often rest in a position that is all but horizontal; and when the women want to drink they have to elevate the upper lip with their fingers, and to pour the draught into their mouths.

Similar in shape is the decoration which is worn by the women of Maganya; but though it is round, it is a ring and not a flat plate; it is called a "pelele," and has no other object than to expand the upper lip. Some of the Mittoo women, especially the Loobah, not content with the circle or the ring, force a cone of polished quartz through the lips as though they had borrowed an idea from the rhinoceros. This fashion of using quartz belemnites of more than two inches long is in some instances adopted by the men.

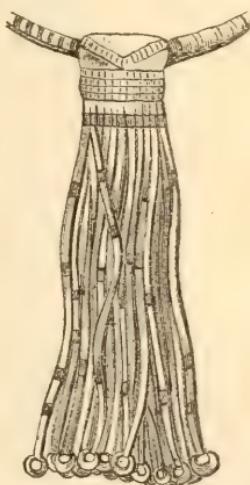
The women of the Madi correspond in their outward garb with

* The mutilation of both lips was also observed by Rohlfs among the women of Kadje, in Segseg, between Lake Tsad and the Benwe.

the Mittoo in general; they make use of a short garment of mixed leaves and grass like the Bongo. The men adopt the same kind of skin-covering for their loins as the Bongo, but they have one decoration which seems peculiar to themselves; they wear in front —something after the style of the “rahad” of the Soudan or the “isimene” of the Kaffirs—a short appendage made of straps of leather, ornamented by rings and scraps of iron; but it is so narrow that it has almost the look of a cat-o'-nine-tails. There are others who buckle on to their loins a triangular skin which has every variety of rings and iron knick-knacks fastened round its edge.



CONE OF QUARTZ WORN IN
THE LIP (ACTUAL SIZE).



APRON WORN BY THE MADI.

Occasionally there were to be seen some broad girdles covered with a profusion of cowries, such as the Niam-niam were said to wear; but hitherto the Madi were the only people I had met with who retained any value for cowries, which for some time had ceased to be held in much repute in the Gazelle district.

Like the northern Bongo the Mittoo disdain devoting their attention to the decoration of their hair: men and women alike wear it quite short. The portrait of Goggo has already furnished a representation of one of their elaborate perukes.

The plucking out of the eyelashes and the eyebrows is quite an

ordinary proceeding among the women. The men have coverings for their head the same as the Niam-niam. The accompanying portrait of Ngahma shows such an article of headgear, suggesting the comparison either to a Russian coachman's hat, or to the cap of a mandarin. They are likewise very fond of fixing a number of iron spikes to a plate which they fasten behind the head, and to



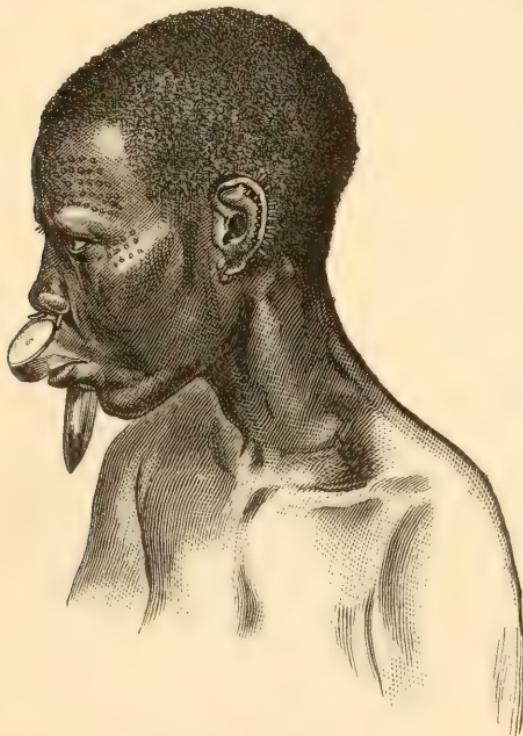
NGAHMA, A MITTOO CHIEF.

these they attach strings of beads and tufts of hair. The Madi also make a sort of cap rather prettily ornamented with coloured beads and which fits the head tight like a skull-cap.

It is only among the men that tattooing is practised on a large scale, the lines usually radiating from the belly in the direction of

the shoulders like the buttons on certain uniforms; the women have merely a couple of parallel rows of dotted lines upon the forehead. The variety of the ornaments which they construct out of iron and copper is very great, consisting of bells, drops, small axes and anchors, diminutive rings, and platters, and trinkets of every sort. All the women wear a host of rings in their ears.

These tribes have the same liking for iron chains as the Niam-niam and the Monbutto. Whatever they attach to their bodies

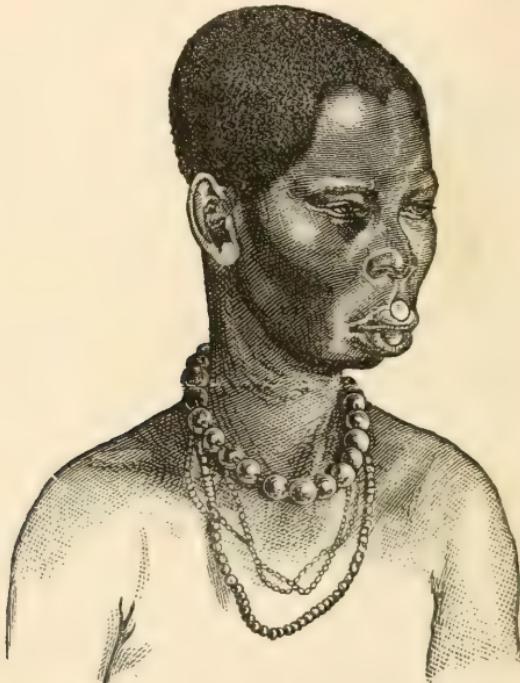


LOOBAH WOMAN.

they attach by chains; and they are very inventive in their designs for armlets and rings for the ankles. The armlets very often have a projecting rim, which is provided with a number of spikes or teeth, apparently with no other object than to make a single combat as effective as possible.

Even amongst these uncultured children of nature, human pride crops up amongst the fetters of fashion, which indeed are fetters in

the worst sense of the word; for fashion in the distant wilds of Africa tortures and harasses poor humanity as much as in the great prison of civilisation. As a mark of their wealth, and for the purpose of asserting their station in life, both sexes of the Mittoo wear chains of iron as thick as their fingers, and of these very often four at a time are to be noticed on the neck of the same individual. Necklaces of leather are not unfrequently worn strong enough to bind a lion; these impart to the head that rigidity of attitude given

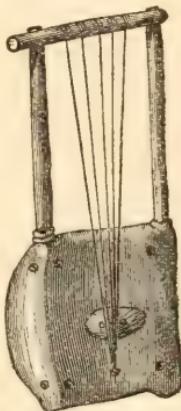


WENGO, A MITTOO WOMAN.

by the high cravats at which we wonder so much when we look at the portraits of a past generation. When the magnates of the people, arrayed in this massive style, and reeking with oily fat, swagger about with sovereign contempt amongst their fellow mortals, they are only as grand as the slimy diplomatists, solemn and stiff, who strut along without vouchsafing to unlock one secret from their wary lips. These necklaces are fixtures; they are fastened so permanently in their place that only death, decay, or decapitation

can remove them. I was never fortunate enough to see the mysterious operation by which these circles were welded on, but I know that when the rings are soldered to the arms and ankles, fillets of wood are inserted below the metal to protect the flesh from injury.

Amongst the many particulars in which the Mittoo are inferior to the Bongo, it may be noticed that their huts are not only smaller, but that they are very indifferently built. Many of them could be covered by a crinoline of lavish proportions. In their musical instruments, however, and in their capabilities for instrumental performances, they are far superior to any of their neighbours. Instead of the great "manyinyee," or wooden trumpet of the Bongo, they make use of long gourd flasks with holes in the side. They have also a stringed instrument which may be described as something between a lyre and a mandolin; five strings are stretched across a bridge which is formed from the large shell of the Anodont mussel; the sounding board is quadrangular, covered with skin, with a circular sound-hole at each corner. The instrument altogether is extremely like the "robaba" of the Nubians, and constitutes one of many evidences which might be adduced that the present inhabitants of the Nile Valley have some real affinity with the tribes of the most central parts of Africa. The flute is made quite on the European



MITTOO LYRE.

MITTOO AIR.

principle, and is most expertly handled by the Madi, who bestow much attention on mastering particular pieces. Small signal-horns made with three apertures are in general use amongst the tribes of the district; but the slim trumpet called "dongorah" is peculiar to the Mittoo; it is about eighteen inches long, and resembles the

"mburah" of the Bongo. Music is in high estimation amongst the tribes which compose this group, and it may be said of them that they alone have any genuine appreciation of melody, negro music in general being mere recitative and alliteration. I once heard a chorus of a hundred Mittoo singing together; there were men and women, old and young, and they kept admirable time, succeeding in gradual cadence in procuring some very effective variations of a well-sustained air.

The implements in general differed very little from the industrial contrivances of the Bongo. Their iron work is rougher and clumsier; but they take a great deal of pains in forming their arrow-tips, having scores of devices for shaping the barbs. One of their ordinary utensils is a crescent-cut ladle with a long handle for stirring their soup.

Graves, for the most part, are seen like those of the Bongo; they consist of a heap of stones supported by stakes, on which is placed the flask from which the deceased was accustomed to drink; both Mittoo and Bongo have, as might be conjectured, the same method of disposing of their dead, and erect the carved wooden penates which have been already mentioned.

The use of the bow and arrow gives the Mittoo a certain warlike superiority over the Dinka, and among their neighbours they are considered to surpass the Bongo in their dexterity in archery. Their bows are four feet long, and of an ordinary form, and they use wooden arrows which are about three feet in length. The Mittoo despise the cumbersome protection of a shield, but they are careful to keep a liberal supply of spears.

CHAPTER VI.

Preparations for Niam-niam campaign — Generosity of Aboo Sammat — Banner of Islam — Travelling costume — Terminalia forest — Prospect from Mbala Ngeea—Camp on the Lehssy—The Ibba—First meeting with Niam-niam—Growth of popukky-grass—Elephant-hunting among the Niam-niam—Visit to Nganye—His household—Gumba—A minstrel —Beauty of the Zawa-trees—*Encephalartus*—Cultivated districts—Identity of the Sway and the Dyoor—Passage of the Manzilly—First primeval forest — Geography of plants — Feeding the bearers — Aboo Sammat's territory — Wild pepper — Giant trees — Modesty of Niam-niam women — Bongo poisoned by manioc — Nduppero's disagreement with Wando — Purchase of skins — Wando's threats — Preparation for war—Natives as soldiers—Rikkete—Forest scenery on the Lindukoo—Niam-niam guides—The watershed of the Nile—Geological formation of Central Africa—Crossing the marshes—“ Gallery-woods ”—Wando's visit—Native cookery—The “ leaf-eater.”

THREE months had thus elapsed in almost uninterrupted wanderings, but I found on my return to Sabby that I could spare only a short reprieve for recruiting. Previous to starting on the laborious expedition to the Niam-niam, to which under the guidance of my protector I had pledged myself, there remained only a fortnight. A score of packages had to be fastened up, many a trunk had to be arranged, clothes had to be provided, implements of many sorts to be secured, ammunition and arms to be put in readiness for the projected excursion into a hostile territory, where we proposed to pursue our way for six months to come. In addition to this provision for the future, I had to make good the arrears in my diary, to get through all my correspondence for the current year, and to provide for the remittance of my valuables to distant Europe. All this had to be accomplished in the space of fourteen days.

By the 29th of January, 1870, every preparation had been so far advanced that the bulk of the caravan was set in motion. Mohammed Aboo Sammat himself proposed to join the party in about a fortnight, as he was compelled to go into the Mittoo

district to secure some additional bearers. My own retinue consisted of four Nubian servants, and three negroes who were engaged as interpreters, one of them being a Bongo, the other two genuine Niam-niam ; besides these there was a number of Bongo bearers, which at first was about thirty, but in the course of our progress was increased to forty. The whole of these were supplied to me at the sole expense of Mohammed, whose hospitality I had now been receiving for three months, and continued to enjoy to the end of our excursion ; not only throughout the period of eight months did he entertain me and all my party whilst we were in his settlements, but he entered most readily into all my wishes, and whenever I desired to explore any outlying parts he would always lend me the protection of a portion of his armed force.

Never before had any European traveller in Central Africa such advantageous conditions for pursuing his investigations ; never in the heart of an unknown land had there been anything like the same number of bearers at his disposal, and that, too, in a region where the sole means of transport is on the heads of the natives. All the museums—particularly those which are appropriated to botany—which have been enriched in any way by my journeyings, are indebted to Aboo Sammat for not a few of their novelties. Solely because I was supported by him did I succeed in pushing my way to the Upper Shary, more than 800 miles from Khartoom, thus opening fresh districts to geographical knowledge and establishing the existence of some enigmatical people.

Everything, moreover, that Mohammed did was suggested by his own free-will. No compulsion of government was put upon him, no inducements on my part were held out, and, what is more, no thought of compensation for his outlay on myself or my party ever entered his mind. The purest benevolence manifestly prompted him—the high virtue of hospitality in its noblest sense. Whoever is actuated by the spirit of adventure to penetrate into the heart of Africa, so as to make good his footing amongst four different peoples, is undoubtedly a man of energy ; although he may not be spurred on by any scientific purpose, and may simply be gratifying a desire to visit lands that are strange and to enjoy sights that are rare, yet he must have succeeded in vanquishing the thoughts which suggest that there is no place like home, and which represent it as the merest folly to sacrifice domestic ease for the fatigues, troubles, and privations which are inseparable from the life of a wanderer.

Our caravan was joined on its way by a company of Ghattas's

from Dangadduloo, conducted by a stout Dinka, whose acquaintance I had already made at the Seriba where he resided. His party consisted of 500 bearers and 120 soldiers, and they contemplated, in conjunction with a part of Aboo Sammat's people, undertaking an expedition into the ivory district of Keefa. That district was shut out from Ghattas's by the fact of the road towards it being the property of Aboo Sammat: according to a convention entered into by the Nubians, a caravan of one company was not to traverse a region appropriated by another, unless an alliance for that purpose was made between the two. As the result of this compact, it had come to pass that no less than fifteen different roads, corresponding to the same number of different merchant houses in Khartoom, branched out towards the south and west from the localities of the Seribas into the remotest lands of the Niam-niam.

Wherever two of these roadways intersect, a serious collision between the parties concerned is almost certain to ensue. Any conductor of an expedition is sure to endeavour to get the monopoly of all the ivory into his own hands. The various native chieftains are prohibited from disposing of their produce to any other agent than himself—a demand which is enforced by violence—and rival companies are intimidated by threats of action for trespass; in fact, no pains are spared to assert a right as vigorously as possible.

An agreement had now been made according to which the leader of Ghattas's caravan was to accompany Aboo Sammat's expedition as far as his establishments in the Niam-niam lands, and afterwards was to be allowed the protection of a military detachment to proceed towards the west, Aboo Sammat himself having resolved to carry on his own main body in the direction of the south.

At the outset of any expedition, whether it be a movement to the river, a raid upon the cattle of the Dinka, or an excursion to the Niam-niam, it is deemed an indispensable preliminary that a sheep should be offered in sacrifice at the entrance of the Seriba. When this has been accomplished, the procession is prepared to start, and the standard-bearer lowers his flag over the victim, so that the border of it may just touch the blood, and afterwards there is the usual muttering of prayers. In truth, the banner of Islam is a banner of blood. Bloodthirsty are the verses which are inscribed upon its white texture; a very garland of cruel fanaticism and stern intolerance is woven in the sentences from the Koran which, in the name of the merciful God, declare war against all who deny the faith that there is one God and that Mohammed is His

prophet, and which assert that His enemies shall perish from the face of the earth.

It will readily be imagined that for a colony of nearly 800 people a start in single file was not effected in a moment : it was quite midday before I commenced any movement at all.

The sun was already in the zenith when we found our way to the arid steppes ; the heat was scorching, but I enjoyed having my dogs about me, barking for joy at their liberation from the confinement of the Seriba. Very memorable to me still is that day on which I took this first decisive step towards the attainment of my cherished hopes. I thought of that moonlight night as I left Khartoom, when upon the glassy mirror of the White Nile I had kept my vigil of excited interest, and now here I was making a still more decisive movement and entering upon a still more important section of my enterprise. Now, there was nothing to obstruct me from penetrating to the heart of Africa far as my feet could carry me ; now, as Mohammed said, I could advance to the "world's end," and he would convey me on till even I should acknowledge that we had gone far enough. But unfortunately my vision of hope was doomed to be dispelled. Just at the moment when curiosity was strained to its highest expectation, at the very time when scientific ardour was kindled to go on into the very depths of the mysterious interior, we were compelled to return.

Upon the first day's march we only proceeded a few miles and camped out beside the little stream Tudyee, of which the deeply-hollowed bed was divided into two separate arms. In one of these arms a languid current was passing on, but in the other, which was perfectly dry, I took my repose for the remainder of the day, under the shade of a grateful shrubbery which overhung its recesses. The revelry of a camp life was not wanting ; meat in abundance was boiled, roasted, and broiled, and the festivity extended far into the night. As is ever the case on the first encampment, the proximity to the settlements with their ample provisions enables it to assume the festive aspect of a picnic.

Anxious to reach the village of the Bongo sheikh Ngoly, we made a prolonged march on the next day. Proceeding through the most southerly of the districts occupied by the Bongo, we still kept in the region that belonged to Aboo Sammat. An hour or more before sunrise, as is usual with these caravans, a general *réveil* was sounded by drums and trumpets, and a meal was made on the remains of the previous night's feast, as no halt was to be allowed

for breakfast. A collection of plants, however, has to be carefully handled, and while my people were strapping up the packages, and the bearers and soldiers were forming their line, I found a quiet half-hour to prepare myself a cup of tea, and to arrange all my little matters for travelling. For the European traveller no article of apparel is better adapted than an old-fashioned waistcoat, with as many pockets as possible, into which a watch, a compass, a notebook, a tinder-box with some matches, and other articles of continual use may be stowed. A coat of any sort, however light, becomes a burden upon a walking expedition; but shirt-sleeves afford free vent to perspiration. A strong felt hat with a broad brim is the best protection for the head.

The march was through a pleasant park-like country, and after crossing a considerable number of fordable rivulets, we arrived about midday at the huts of Ngoly. At Ngoly, over a surface of about eight square miles, abounding with hartebeests, we found various groves of the *Terminalia macroptera*, having very much the look of a wood of European oaks.

The Terminalia is to be classed amongst that small number of trees of which regular groves, in what we call forests, rise to the view. They are remarkable for the general deficiency of under-growth or bushwood which they exhibit, a circumstance that arises from the general inability of woody plants to endure so moist a soil.

The landscape in Africa presents to a large extent examples of trees which only cast off their foliage fitfully. In contrast to these, the Terminalia annually throws off all its leaves as soon as the rains are over, and throughout our winter months it is perfectly bare. It grows to a height of about thirty or forty feet, and by its deeply-scored black bark and the general character of its ramifications, it may be said to be not unlike the glutinous alder of the north.

Up betimes on the morning of our third day's march, I took my place at the front of our caravan.

For a full hour the way proceeded through the wood, and then we entered a low-lying steppe which brought us to the running water of the little river Teh or Tee. As we approached we saw a herd of buffaloes betake themselves to flight, and, snorting and brandishing their tails, dash into the stream. Flowing rather rapidly, the Teh is between twenty and thirty feet in breadth, and passes along wooded banks which gave me my first introduction to the flora of the Niam-niam. The botanical treasures of this district I may venture perhaps to call the "bank" or "gallery flora," in con-

tradistinction to that extensive class of vegetation which predominates over the wide steppes around.

Unfortunately there was little leisure for me to enjoy this attractive *entrée* to the flora of the land. We had to hurry on, and passed quickly into a region where the tall unburnt grass made the route indistinguishable to all but an expert, and where it was impossible to see more than a few paces in advance.

By perseverance we reached a bare and extensive rocky plain developing itself into the depression of a valley along which the stream of the Mongolongboh cuts its winding path. The rock is all composed of red ironstone, very frequently of that coarse and large-grained quality which is technically known as roe-stone.

Our next halting-place was close by the water-side under the shade of some noble trees, in which a merry troop of monkeys was frisking. As we arrived before midday, I had an opportunity of taking a ramble in the neighbourhood. For some miles round, the region was entirely uninhabited, and the utmost desolation prevailed. None of the traces of any previous occupation could be seen—none, I mean, of the peculiar weeds which will survive where there has been any cultivation; everywhere there was only bushwood and steppe, except just in the spots where the stone flats were on the surface or where the ground rose into hills, enclosing the valley along which the Mongolongboh wound its course. There was a fine panorama of the vale from the top of the hills, and many a group of antelopes enlivened the general stillness of the scene.

In the evening a gathering storm compelled us to put forth all our energies, by way of precaution, to protect the baggage. The dark clouds rolled towards us, and the encampment was all bustle and alarm. By good chance, however, the storm passed over our heads, and we had only a few heavy drops of rain. Since the end of last November this was the first day on which any rain at all had fallen. As often as we were threatened with wet, and time did not permit us to erect our tent, I made my baggage as secure as I could, by piling wood and layers of stone upon it, and covering the whole with great sheets of waterproof twill.

Long before sunrise on the 1st of February we had quitted our encampment, hastening our movements through a fear, which was altogether groundless, of there being a deficiency of water. Encompassed by hills, we marched along rising ground, and by the time that the morning light had dawned, we found ourselves at an elevation of about 500 feet above the valley of the Mongolongboh, and

with a prospect open before us towards the south, much more extensive than we had hitherto enjoyed. The ridges of hills ran from east to west, and the peaks right and left of the path by which we were proceeding were called by our leaders Mbala Ngeea. Before us in the valley there was visible the low ground of the Lehssy, which, in the lower part of its course, is called Doggoroo by the Bongo; whilst only separated from the Lehssy by a range of little hills, there was still beyond the broad and fertile valley watered by the Upper Tondy, which here receives the name of the Ibba. Among the Bongo its name is simply Bah, *i.e.* the river, just as the local population of Baghirmi call the Shary, a further evidence of the relationship which exists between the people.

We now descended from the heights and arrived at the Mah, of which the flat bed caused a number of broad pools of water to obstruct our way. Along undulating terraces we next reached a wood, which consisted for the most part of wide stretches of kobbo-trees (*Humboldtia*), which gave a light but welcome shadiness to our path.

Making a fresh ascent, we passed upon our left one of those insulated elevations of gneiss which are so frequent in these regions, and which, as they lie scattered and weather-beaten over the plain, have all the indication of being the remains of some upheaving of the hills above the general level of the ferruginous swamp-ore around. A group of stately hartebeests was parading upon the summit, and surveyed from the distance of half a league the progress of our caravan, as it wound its way along the bushy paths. By midday we had reached the Lehssy, and camped upon a flat of gneiss which the waters at their height had washed. At the present season of the year the stream pursued its course beneath the soil, but it had left a considerable number of pools, some of them a hundred paces long, and from forty to fifty feet wide, which, overhung as they were by shading bushwood, abounded in fish.

At noon on the following day we arrived at the Ibba, as I have said the Upper Tondy here is named. About a hundred feet in breadth, but only three feet deep, it offers no difficulty in the way of being forded. The water was running from east to west at the rate of sixty feet a minute, and many blocks of gneiss were lying in the river-bed, which was bounded by gradually ascending banks.

Upon the southern side of the river were the first cultivated lands of the Niam-niam that we had yet seen, and which at that time were lying fallow. Shortly afterwards the ground suddenly rose for

some hundred feet. The universal sorghum is here the prevailing crop, but farther on it is in a very large degree replaced by eleusine. We found ourselves upon the territory of a tolerably rich chieftain, named Nganye, who was on very friendly terms with Aboo Sammat. The name of the superintendent of the district was Peneeo. Meanwhile, for the first mile or two after we left the river, we observed that all the inhabitants vacated their abodes. In all regions like this, where the greater fear happened to be on the side of the natives, the same behaviour was repeated, and very often was accommodating to both parties. In these cases the people with their wives and children, their dogs and poultry, their guitars, their baskets, their pots and pans, and all their household articles, make off to the thickest parts of the steppes, which have been spared from the fire and reserved for elephant-hunting; there they hide themselves in an obscurity which only the eye of a bird could penetrate. It will not rarely happen that they are betrayed simply by the cackling of their fowls.

Some of Mohammed's soldiers, who had been sent on in front, returned and brought us tidings of welcome from Nganye, whose residence we hoped to reach on the following day. We found ourselves, however, already very comfortable, as Peneeo, the chief of the district, or Behnky,* had likewise, as Nganye's representative, paid us his compliments; he had brought a supply of corn for the bearers, and a lot of poultry as a present to myself. In his retinue were a number of men, who, although they were not unlike the score of Niam-niam that I had seen at Sabby, yet here in their own home had an appearance singularly wild and warlike.

With their black poodle crops of hair, and the eccentric tufts and pigtails on their heads, they afforded a spectacle which to me was infinitely novel and surprising. Amongst the hundreds of Bongo and Mittoo, with whom the Dinka were associated as drovers, these creatures stood out like beings of another world; here were genuine, unmistakable Niam-niam, neither circumcised nor crop-headed, such as other travellers have seen either in Khartoom or in the Seribas; here they were, presenting all the features of wildness which the most vivid Oriental imagination could conceive; a people of a marked and most distinct nationality, and *that* in Africa and amongst Africans is saying much.

Pursuing our route on the following day, we passed along a country that was very undulated, and led through many deeply-cut

* Behnky has the French pronunciation of "bainqui."

defiles which ran down to the river. For three leagues we kept making a stiff ascent over fallow land, until we arrived at the settlement of Nganye. In consequence of the early rains and that which had fallen in the previous night, the ground had become quite soft, and a multitude of those plants which put forth their blossoms before their leaves had sprouted up. Grass so strong and so thick I have never elsewhere seen, as what I saw in this region. The dry stalks, in their height and thickness like reeds on a river-bank, are intentionally protected by the natives from destruction when the steppes are burned: and whenever there seems a chance of driving up a herd of elephants, the steppe-burning is only partial, and done in patches. The strongest of these permanent grasses is a species of *panicum* which the Niam-niam call "popukky." The haulm of this attains a height of fifteen feet, and becomes almost as hard as wood, and as thick as a man's finger. Of this popukky the Niam-niam construct some very serviceable doors for their huts, and some mats, which they lay upon the ground and use for beds.

Whenever masses of grass of this nature are set on fire, the elephants have no possible escape from certain death. The destruction is carried on by wholesale. Thousands of huntsmen and drivers are gathered together from far and wide by means of signals sounded on the huge wooden drums. Every one who is capable of bearing arms at all is converted into a huntsman, just as every one becomes a soldier when the national need demands. No resource for escape is left to the poor brutes. Driven by the flames into masses, they huddle together young and old, they cover their bodies with grass, on which they pump water from their trunks as long as they can; but all in vain. They are ultimately either suffocated by the clouds of smoke, or overpowered by the heat, or are so miserably burnt that at last and ere long they succumb to the cruel fate that has been designed for them by ungrateful man. The *coup de grace* may now and then be given them by the blow of some ready lance, but too often, as may be seen from the tusks that are bought, the miserable beasts must have perished in the agonies of a death by fire. A war of annihilation is this, in which neither young nor old, neither the female nor the male, is spared, and in its indiscriminate slaughter it compels us sorrowfully to ask and answer the question "*Cui bono?*" No other reply seems possible but what is given by the handles of our walking-sticks, our billiard balls, our pianoforte keys, our combs and our fans, and other unimportant articles of

this kind. No wonder, therefore, if this noble creature, whose services might be so invaluable to man, should even, perhaps some time during our own generation, be permitted to rank in the category of the things that *have been*, and to be as extinct as the ure-ox, the sea-cow, or the dodo.

Fatiguing enough we found our progress through the towering



NIAM-NIAM IN FULL DRESS.

grass. The path was narrow, and it was very necessary to plant one's foot firmly upon the stalks to avoid stumbling on the way. At length towards noon we arrived at the head-quarters of the chieftain, a residence which, in the language of the country, is called his "mbanga."

I found myself at once encircled by the natives, who came streaming in to see for themselves the white man of whom already they had heard so much. It was my own first opportunity of seeing the Niam-niam in the reality of their natural life. As became a people with whom hunting is a prominent feature in their pursuits, they were girded with skins. High upon their extensively-dressed hair they wore straw-hats covered with feathers and cowries, and fastened on by means of long bodkins of iron or copper. Their chocolate-



COIFFURE OF THE NIAM-NIAM.

coloured skin was painted in stripes, like those of the tiger, with the juice of the Blippo (*Gardenia malleifera*).

Whilst I was reposing beneath an awning that had been put up as a shelter from the sun, the natives bestowed upon me such a prolonged and decided stare that I had ample opportunity for transferring a few of their portraits to my sketch-book.* In the early

* The portraits here presented are those of two dandies, named Wennepai and Sehngba.

evening I paid my respects to Nganye, the resident prince. His abode consisted of a collection of huts, some larger than others, which he had assigned to his body-guard, and to the wives and children of his closest associates. The mbanga of a prince may be known at once by the numerous shields that are hung upon the trees and posts in its vicinity, and by the troop of picked men, fully equipped, who act as sentinels, and are at hand night and day to perform any requisite service. Military expeditions, surprises, conspiracies for murder, are here the order of the day, but frequently other and better employment will arise to engage them—as, for instance, when the discovery is announced that a herd of elephants is in the neighbourhood. Then the signals must be sounded, and every one without delay must be summoned, the occurrence being recognised as of national importance, for there is the chance of securing many hundredweights of ivory, and perchance ten times the weight of meat.

Very modest in its pretensions was the court of this negro prince, and it had little to distinguish it from the huts of the ordinary mortals who had their homes around. Surrounded by a dozen women, who with some household slaves superintended the tillage of the royal domain, Nganye had every appearance of enjoying a peaceful—nay, it may be said, an idyllic—existence.

I found him perfectly naked except for a little apron that he wore. He was sitting on a Monbuttoo stool, quite unarmed, and with no insignia whatever. There were, indeed, some twenty or thirty natives who were armed and kept guard in the outer court, but apart from this any pretension to state was entirely wanting. By means of my two interpreters I contrived to keep up a long conversation which I found interesting enough. I was made acquainted without reserve with all the details of Nganye's family, and with all the particulars of his home administration. It was much that I came to him as a friend of Aboo Sammat's. Aboo Sammat was to him a friendly neighbour, who brought to him as his chief an annual contribution of copper, beads, and stuffs; and the prince in return stored up for Aboo Sammat's purchase all the ivory which the year's exertions had secured.

On the night of the 3rd of February some rain again fell, but it was not heavy enough to penetrate the grass coverings that we had improvised for our baggage. This was the third occasion on which we had now had rain, and although the fall had been very insignificant, in fact scarcely a quarter of an inch, yet the effect was so great

as to be almost magical. Its influence alike upon the thirsty earth and withered steppes was very wondrous, and the sprouting stalks of grass bore ample witness to the invigoration that it brought.

A broad valley, alternately steppe and cultivated land, spread itself out around the residence of Nganye, and through its midst there wound a watercourse which now was dry. Over this we made our way; and, mounting the opposite acclivity, proceeded one league onwards to the west, thus for the time reversing our previous progress. Black and barren were the burnt steppes at this season, when the elephant-hunting was all over, and they were unrelieved as yet by any vegetation. Literally our feet trod upon the embers of the burnt grass, very much to the detriment of my own white costume, and involving a large consumption of my soap that had been so laboriously procured from oil of sesame, burnt wood, and oyster-shells. Around the base of the charred bushes there were little lines of green where the young sprouting herbage broke through the earth, and now and then some opening blossoms would give an unexpected beauty to the scene.

A charming walk of two leagues and a half brought us to a subsidiary holding of Nganye's, named after its superintendent Gumba. The villages of the district were abundant in corn, and afforded too welcome a chance for the hungry bearers to resist making there their halting-place; the prospect, moreover, of brimming beer-flasks had its wonted attraction with the Nubians. The goal was full in view; a little ridge of hills beckoned hospitably from afar, and immediately beyond were the broad acres of cultivated land which belonged to Gumba.

The country hereabout was tolerably secure, the Niam-niam being desirous to secure Aboo Sammat's friendship in order to ward off any mischief that might arise from the dangerous neighbourhood of Sabby. I considered it sufficiently safe to venture upon a little tour, attended only by my two Niam-niam servants. Directing my steps to the hill, I found that it was only like a hundred others, a pile of brown roe-stone, and apart from the open panorama it afforded, it possessed no interest at all. All along I gathered weeds and plants in ever-fresh variety.

Making at length our halt at a hamlet, my two companions drew my attention to a valuable production of their land. I afterwards found that it was the Colocasia, which is cultivated very freely throughout the Niam-niam country, and which when boiled makes a very excellent vegetable.

As the darkness came on, our camp was enlivened by the appearance of the grotesque figure of a singer, who came with a huge bunch of feathers in his hat, and these, as he wagged his head to the time of his music, became all entangled with the braids of his hair. His instrument was the local guitar, the thin jingling of which accorded perfectly well with the nasal humming of the minstrel's recitative. The occupation of these nzangah, however, notwithstanding the general love of the people for music, would not appear to be held in very high esteem, as the same designation is applied to those unfortunate women, friendless and fallen, who are never absent from any community. Quite contrary to the practice of the neighbouring tribes, they have nothing to do with boisterous music, and only use their drums and horns for the purpose of signals. The minstrelsy of the Niam-niam may be said to have the character of a lover's whisper.

Starting again and proceeding to the south, after an agreeable walk of about three hours, we arrived at the quarters of Bendo, a brother of Nganye, who had set him in charge of one of his best and most populous districts. The homesteads were all scattered over a wide and well-cultivated area, which extended with a northerly aspect along the declivity of an elevation of gneiss that rose to an altitude of about 200 feet. This hill was named Gungango; before we reached it we had to cross a considerable stream called the Rye, which throughout the year is always flowing. Uninfluenced hitherto by the rain, its breadth was now about forty feet, and its depth was sufficient to allow us to enjoy a pleasant bath at a spot where it ran beneath the shelter of some thick *Psychotriae*. Tall popukky-grass covered the banks, amidst which the splendid Nathalia, with its blossoms fine as those of a horse-chestnut, rose in all its beauty. The whole region, on either side the stream, was well cultivated, and look whichever way we would, we saw groups of farmsteads, although villages, in our sense of the term, did not exist.

Each family resides close to, if not exactly upon, the land it cultivates. The insecurity of property is everywhere so great, that rather than relinquish their incessant watch over their crops, the people submit to many inconveniences and live far away from watercourses, put up with short supply of firewood, and brave the ravages of the white ants.

The Rye empties itself into the Sway, as the Dyoor is termed by the Niam-niam, although by the Bongo and Dyoor it is called the



I.

A NIAM-NIAM MINSTREL.

To face p. 212.



Geddy. Close to the rising eminence of Gumango, the Rye upon its left shore receives a considerable stream flowing from the marshy plains, along the banks of which are scattered numerous farmsteads surrounded by plantains. This was the first time I had seen the *Musa sapientium* in any quantities; just beyond the Nile district in the Monbutto country it becomes the very staple of the people's food. The cultivation of the plantain seems to be a speciality of all the equatorial regions of Africa, from Uganda on Lake Ukerewe right away to the western lands on the Gaboon and Ogowai.

Our encampment had been made to the north-east of Gumango in a great grove of Zawa-trees (*Lophira alata*). Of this tree very few detached specimens are met with. It belongs to a class which flourishes beyond the range of the woods of the river-banks, and will grow on a tolerably dry soil.

It is one of the most serviceable productions of the country, as its fruit, which is about as large as a hazel-nut, yields a prolific supply of oil, of which the quality is singularly pure, while it is neither rank in smell nor coarse in taste.

All the morning I pursued my botanizing on the river Rye, and all the afternoon upon the sides and summits of Gumango. The arched surface of the rising mound of gneiss, stretching out without a rift, was the habitat of several very interesting ferns. Here I found the first specimen of *Encephalartus* which had ever been discovered in the northern latitudes of Africa. The Ensete or wild *Musa* of Africa, which the Niam-niam call the "Boggumboly" (or little plantain), grows likewise in great abundance upon this interesting hill.

As surveyed from the summit of Gumango, the country, with the variegated colours of its cultivated enclosures, exhibited a thoroughly European aspect. Ploughed fields are nowhere to be seen, but the labour is limited to clearing out the weeds, and loosening the surface of the mould to receive the fine-grained eleusine, which no doubt requires more care than sorghum, which is sown broadcast.

Everything testified to the fruitfulness of the soil. Sweet potatoes, yams, and colocasiæ were piled up in heaps, and our hungry Bongo and Mittoo fell upon them as though they had entered a hostile country. The receptacles for corn, being circular erections of clay, supported on posts, and furnished with a covering which lifted up and down like a lid, were soon emptied, and the im-

mediate neighbourhood of our quarters was like a scene of rapine and plunder.

The arrangements of the Niam-niam huts are much the same throughout the land. Two, or at most three, families reside close together. Generally from eight to twelve huts are clustered round one common open space, which is kept perfectly clean, and in the centre of which is reared a post upon which the trophies of the chase are hung.

Close in the rear of the huts, upon the level ground, were the magazines for corn; behind these would be seen a circle of Rokko fig-trees, which are only found in cultivated spots, and the bark of which is prized, far more than the handsomest of skins, as a material to make into clothing. Further in the background might be noticed a perfect enclosure of paradise figs; then in wider circumference the plantations of manioc and maize; and, lastly, the outlying fields of eleusine extending to the compound next beyond.

After some time we found Bendo himself, arrayed in an apron of red flannel which had been given him by Mohammed. He looked very much disconcerted at seeing his property laid under such heavy contribution, but he was utterly helpless to arrest the havoc. The promise was given that Mohammed, when he arrived, would compensate him for all his loss by ample presents of copper rings and other gifts; and, as matter of fact, we found Bendo, at the time of our return, perfectly satisfied in his old quarters, and ready to show many proofs of the friendly interest with which he regarded me.

Besides Bendo and Gumba, Nganye had four brothers,—Imma, Mango, Nyongalia, and Mbeli,—who acted as his deputies, and had the charge of various districts. Intimidated by his alliance with Aboo Sammat, they were subservient to him with the obedience of vassals. There was, however, a seventh brother, Mbagahli, known by his Arabic name of Surroor, who was the direct subordinate of Aboo Sammat, and had been established in command of the wide country vanquished by him, which was bounded by the territories of Nganye, Wando, and Mbееoh. Nganye had only two sons recognised as legitimate, Imbolutiddoo and Mattindoo, the former of which was destined to be the heir of his dignity. Nganye's father was Moonuba, one of the six sons of Yapahti, who must not be confused with another prince of the same name whose territories lay to the south of Dar Ferteet.

On the 6th of February our march was maintained for a distance of six leagues until we arrived at the Sway.

Our progress led us, for two leagues from the residence of Bendo, along cultivated lands which were covered with farmsteads. On either hand, and apparently united with Gumango, stretched out ranges of granite hills to the south and south-east. One hill in particular lay to the left of our way, which was very long, but not higher than Gumango. The three succeeding leagues were all down-hill across a desert, and we had to pass some marshy courses, and several of what for want of a better name may be called "meadow-waters," which at this season of the year were quite dry. These localities in Kanori, the dialect of Bornoo, are called "nyalyam." Barth mentions them as one of the most characteristic features of Central Africa, between the Shary and the Benwe.* The prevailing character of the landscape was that of a steppe lowland, broken now and then by park-like woods.

Just one league before we arrived at the river we passed the hamlets of Marra, who was a "behnky" of Nganye's. The Sway is the upper Dyoor, and, according to the uniform representations of the Niam-niam, it is considered as the main-stream. I came across its source at the mountain of Baginze, where, although it is but a little brook, it is called by the same name. The proofs that I can adduce for the identity of the Dyoor and Sway are conclusive enough to establish it for a certainty,

To myself it was a great satisfaction to place beyond a doubt the origin at least of one of the principal source-streams of the region of the upper Nile; and thus definitely to assign its geographical position to Mount Baginze.

The Sway flows past Marra along a level steppe, which on account of the rapid flow and deep channel of the river can only rarely, and that at the time of the rainfall, be under water. At this time the banks were perpendicular, rising to a height of some 18 or 20 feet, and being cut through layers of alluvial soil very much reminded one of the Nile "guefs." The distance between bank and bank was 40 feet, but the actual river was now about 25 feet wide. Its depth was about 4 feet, and it was flowing at the rate of 120 feet a minute. The volume of water which passed was thus 200 cubic feet in a second, whilst the Dyoor, before its union with the Wow,

* They correspond to what in the Mark of Brandenburg are called "Luche" (from the Slavonian, "Luga," a pond), being meadow-like depressions from which the water passes by subterranean channels.

at the dry season in the end of December, did not roll onward a volume of more than 1176 cubic feet. In the middle of June again the Sway had a volume of 2330 cubic feet to the second; whilst the Dyoor in the rainy season, at the point I have just mentioned, exhibited a volume of 8800 to 14,800 cubic feet.

All the tributaries of the Dyoor (even to the great Wow, to which the Dyoor owes at least one-third of its volume), as far as they are known to me, have in winter the most trifling significance. Upon the right are the Rye, the Lako, and the Lengbe; on the left the Hoo, the Yubbo, and the Bikky.

The sun had not risen on the 7th of February when we started on our passage over the river.

Through a charming bush-forest, which, though destitute of large trees, was most imposing in the luxuriance and size of its foliage, our long column continued its march. These bush-woods, remarkable for the large dimensions of their leaves, predominate everywhere throughout the countries of the Bongo and of the Niam-niam; they contain little of the nature of the steppes, except in parts where there is space left for the grass to spring up in abundance. Districts destitute of trees could not anywhere be found except upon the rocky flats or amidst the damp and marshy lowlands.

Let arable land lie fallow but a couple of years, and it will break out into a young but dense plantation; the roots of the shrubs that have been cut down send up new shoots, and the whole is soon again a mass of verdure. It should nevertheless be mentioned that every tree that is either fine in itself or useful in its product is always spared and allowed to stand. The charm of the landscape at this early season of the year is very fascinating, and beyond a question April and May are months full of delight in Africa.

Before noon we had reached the little river Hoo, which, after flowing as far as the eye could reach through continued steppes, at a spot a few leagues further down unites itself to the Sway. At this period it was a mere brook rather than a river, with a level sandy bed varying from 35 to 20 feet in breadth; it had but a languid flow and seldom was above 2 feet in depth. The banks are very low, and the rainfall consequently soon makes it overflow its limits and swamp the adjacent steppes as far as the very limits of the woods. The plants which flourish on its borders (*Irvingia*, *Morelia*, *Trichilia*) clearly reveal that for months together they have been under water.

From the flats where the Hoo lay low, we proceeded through an undulating rocky bush-wood to an adjacent brook called the Atoboroo. Sunk in a deep chasm 80 feet deep it was hardly perceptible from above, and streamed on overmassed by the densest marsh foliage. The vegetation of the woods offered me a fresh feast of plants that I had never before seen, and I enjoyed an especial pleasure in the discovery of thickets of a species of ginger-plant, which filled the valley all round with the most delicious aromatic perfume, and grew quite down to the edge of the water.

Damp and foggy was the following morning as our caravan moved on its way. We had proceeded but a short distance when our advanced party came to a standstill. This was a symptom that a brook or river of some sort had obstructed further progress. These continual delays and interruptions contributed somewhat to the difficulty of keeping a systematic record of my wayfaring experiences. Through the tall grass and high bushes I endeavoured to push my way to the head of the line, but I could only succeed in arriving in time to see the first company follow their banner over the Manzilly. Along a ravine deeply overhung by the broad branching foliage of the fig-trees, the stream rushed on to the north-east, a direction precisely the reverse of what was followed by the Hoo, which ultimately received the waters of all the minor streams which came from the western heights. At every time of the year these watercourses are all very rapid, and generally speaking they run over gravel beds in distinction from the marshy mould of the more sluggish streams. In these cases the tedious process of undressing is limited merely to taking off one's socks and boots, and this is a considerable saving of time.

Shortly after this we came to a small, albeit a very small piece of primeval forest, containing giant fig-trees, commonly called gum-trees, and indeed of a species not unlike the *Ficus elastica*. As a forerunner of greater surprises still to come, there rose before my view the first thicket of the calamus (the rotang or Spanish reed), which deserves a foremost place in every description of the woods that line the river-banks in the Niam-niam lands. It was a "gallery" or avenue in miniature, such as I should find on a larger scale along the side of nearly all the smaller streams to the south. This conception, so necessary to an adequate topographical representation of the land, will be discussed in a somewhat later page.

After a while we reached a second brook beside the farmsteads of

Kulenjo, which are the first settlements of the Niam-niam subject to the immediate control of Aboo Sammat. The possessions of each separate Niam-niam are parted from each other, just in the same way as the territories of the different tribes, by desolate intervals void of any residents whatever, nominally for the purpose of security, so that the inhabitants may, by placing out a watch, easily guard against any sudden attack. When there is mutual distrust, or in times of open war, watches are of little service in signalling danger, for then every Niam-niam, as a true hunter, passes his whole time in watching and lying in wait.

During the entire day I occupied myself among the magnificent thickets on the stream near Kulenjo, the vegetation, so different from what I had seen in other parts of the Nile district, and of which I had had only a foretaste on the Atazilly, being here revealed in its full splendour. The flora embraces the majority of the plants of the western coasts of tropical Africa that are known on the Gaboon, the Niger, and the Gambia, and overstepping the watershed dividing the Nile districts from the basin of the Tsad, opens to the traveller from the north the unexpected glory of the wildernesses of Central Africa. Though all was but a faint reflection of the rich luxuriance of the primeval forests of Brazil, yet, in contrast to what had gone before, it could not fail to be very charming. Throughout the twenty-six degrees of latitude over which I travelled, the progress of vegetation, according to the geographical zone and the meteorological condition of the successive lands, was organised with wonderful simplicity. For the first 800 miles stretched the dreary desert, giving place to wide steppes, void of trees, but ever covered with grass; next came the delightful region of the bush-forests, where the vegetation, divested of the obnoxious thorns of the desert, recalled the soft foliage of his native land to the mind of the traveller, who lastly entered upon what he might correctly call the true primeval forest which carried him back to the memories of his youth when he yielded his fancy to the fascinations of 'Robinson Crusoe' or of 'Paul and Virginia.' An identical change gradually supervening in the character of vegetation is perceptible in a contrary direction in the southern half of the continent: and travellers proceeding from the Cape northwards to the Equator have rarely failed to draw attention to the fact.

Nature everywhere proceeds upon the principle of levelling what is opposite and balancing what is extreme; she would seem to abhor the sharply-defined boundaries in which man delights so

much, and in accordance with this law she here presents to the eye of the inquirer a transition that is very gradual, so that the limits of her districts overlap one another like the fingers of folded hands. Even in lat. 7° N. small isolated tracts of bank-forest, bearing, however, the characteristic types of the "gallery" flora, are scattered like enclaves among the bush-forests of the distant north. The forests at Okale, at Yagla, and the locality called "Genana," are examples which I have already mentioned.

In marching for three days across an open wilderness, the caravan had to be provided by Kulenjo with their ordinary meals, and it was no easy matter in a region so scantily populated to find the necessary food for a thousand hungry mouths. The feeding took place in the evening, and before sunrise in the morning. The whole party of bearers were divided into groups, to which the food was distributed by the different "nyare," or local Bongo overseers, who generally accompany the leaders of these longer expeditions.

On the twelfth morning of our march I rose with the welcome prospect of that day reaching Aboo Sammat's Seriba. Attending to my toilet, and taking my time over my breakfast, I did not quit the camp at Kulenjo until long after the last of the bearers had left. The day brought us along a charming walk, and yielded a fine harvest of botanical treasures; we crossed four streams, passed several isolated hamlets, and finally entered a dense forest of lofty trees. This was no park with its alternations of meadows and thickets, trees and groves: it was a veritable forest in our northern sense, but infinitely more lovely and varied, and not marked by the solemn monotony of our native woods.

One of the native chieftains, as I have already mentioned, had exhibited so much hostility, and had been so great an obstacle to Mohammed Aboo Sammat's ivory-trade in Wando's district, that Mohammed had proceeded to violence and had wrested away his territory. This chieftain was now dead, and Mohammed in his place had appointed a native spearman of royal blood. Mohammed had a considerable number of these spearmen, natives of the Niam-niam country who were brought into his Seribas, and having been initiated into the use of fire-arms, formed one of the main supports of his authority. Backed by the continual presence of some forty or fifty armed Nubians, Surroor (for such was the name of the new vicegerent) held sway over a populous area of 700 square miles. According to the joint estimate made by Mohammed and Surroor, the number of men in the territory capable of bearing arms was not

less than 40,000. I believe, however, that half this number would be nearer the mark ; for when I test my impressions by comparing them with the results of my careful investigations in Bongo-land, I cannot but think that the entire population of the Niam-niam country, with its wide tracts of wilderness utterly uninhabited, hardly averages 65 to the square mile.

Since here amongst the bearers there is no institution of statute labour, and the number of villages and huts could only be arrived at by careful scrutiny of an entire district, the only means open to me for estimating the amount of population was by taking what reckoning I could of the people who assembled on either side of our route as we passed along. These may be divided into three classes : first, those who had come from mere curiosity ; secondly, those who had been ordered to settle in a district to contribute towards the general means of subsistence ; and, thirdly, the fighting-force that was displayed in various places during time of war, and which most probably represented the large majority of the men who were capable of bearing arms.

The strongholds in this district consist of one large Seriba and three smaller palisaded enclosures. In these subsidiary settlements discipline is maintained by native overseers with a small detachment of armed men.

The personal relation of the Niam-niam towards their rulers was far less servile than what I had observed among the Bongo and Mittoo. The duties imposed were mainly the same. They were bound to assemble promptly at any signal either for war or for hunting, to provide an adequate support for whatever soldiers and bearers might be brought into the country ; to furnish wood and straw for building purposes, and to perform various incidental labours. The Niam-niam, however, are not employed as bearers upon the expeditions, and upon the whole are less oppressed and are treated with more consideration than the Bongo. At present they can hardly comprehend their state of subjection, and this indefinite feeling is fostered at first by leniency on the part of the oppressors, that they may smooth the way for severer measures in the future.

The power of any native chiefs among such a people of unsettled habits and unpliant temper as the Niam-niam—a people delighting in the chase—is necessarily at present very limited ; it cannot extend any further at all than to accomplish the disposal of whatever men may be capable of bearing arms either for the purpose of warfare or of hunting. The official emoluments of these chiefs are derived

partly from an allowance made upon all the ivory that is secured, which is always paid without being contested, and partly from their having a right to half of all the elephant-meat; but for their ordinary subsistence they have to turn their attention to the cultivation of the fields; and for this purpose they endeavour to increase their home establishments by the acquisition of as many wives and women-slaves as their resources will allow.

I remained at this place from the 10th to the 26th of February. The Seriba was in lat. $4^{\circ} 50' N.$, and was 87 miles south—almost due south—of Sabby. It was situated in the angle formed by the confluence of two streams, the Nabambisso and the Boddo, which were overhung by lofty trees, and in some places were enclosed by dense thickets. Close at hand was the “mbanga” of Surroor.

I spent the daytime in an assiduous investigation of the neighbouring woods. My collection increased considerably, and the paper packets prepared for the reception of my treasures were rapidly filled up. The crowds of natives who came from far and near to gaze upon me afforded me an acceptable opportunity of filling up some pages in my album. My two Niam-niam interpreters (called in Arabic Gyabir and Amber) felt at home upon their native soil, and accompanied me everywhere, making my intercourse with the natives perfectly easy. I was able to roam about at will in the adjacent jungles, as the environs were as safe as those of Ghattas's Seriba in the Dyoor country; and, altogether, I was soon as comfortable as I could desire in this remote land.

The scenery was lovely; the two streams never failed throughout the year to be well supplied with water, and flowed through deep glades where the lofty trees were wreathed and festooned with creepers in clustered grace that would have been an ornament to any palm-house. In the part where the supply of water was diverted to the residences the woods had been considerably thinned. The wild date-palm (*Phœnix spinosa*), which may be considered as the original of the species cultivated throughout the desert region from Senegambia to the Indus, grows here as a low shrub, and together with the calamus forms an impenetrable hedge along the banks of the stream. The double barbs of the calamus cling tenaciously to the skin and clothes, reminding one of the prickly acacia to which the Boers, or Dutch colonists in South Africa, have given the name of “wag-a-bitjen,” *i. e.* wait-a-bit.

A new characteristic of the flora appears here in the Amomum, which I found in tall masses on the damp soil near the bed of the

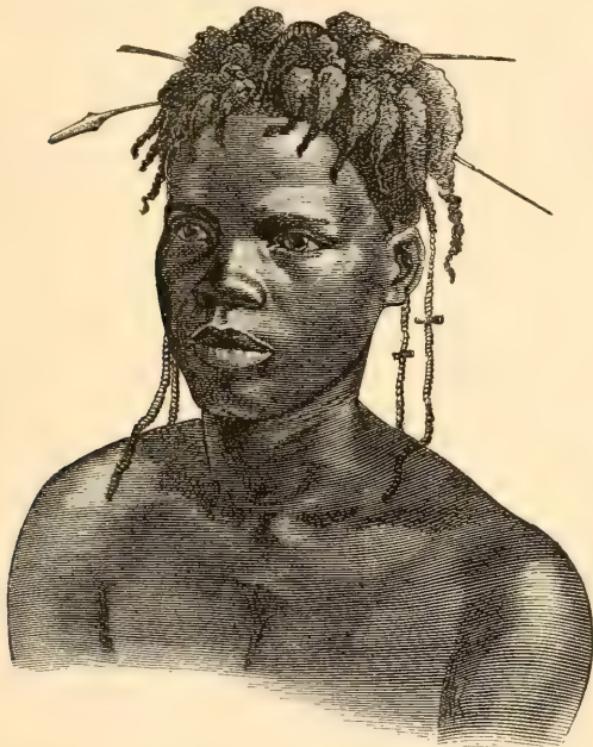
stream, and even in the water itself. I saw five different species, with white, yellow, and crimson flowers. The fruit of all the kinds is bright red, and contains a soft pulp which has a flavour like citron, and which envelopes the aromatic seeds known as grains of paradise. The water of the stream runs clear as crystal, and the traveller may at any time allay his thirst by a cooling draught. Here and there the sun's rays force their way through the interlacing creepers which hang in festoons between stem and stem, and in the twilight the foliage gleams almost like burnished metal. The Ashantee pepper (*Cubeba Clusii*) clothes the trunks with a close network which is thickly covered with bright red berries that grow in clusters as long as one's finger. It is one of the most common and yet at the same time one of the most striking of the characteristics of the primeval forests of the district; it forms the finest adornment of the giant trees, and covers the venerable stems of these princes of the vegetable kingdom with a vesture of royal purple.

One amongst the most imposing forms of vegetation is found in a *Sterculia* of the Cola tribe, called "kokkorokoo." This tree grows to a height of 80 or 90 feet; the stem gradually tapers upwards to a point, whilst at the base it is suddenly expanded to so great a bulk that it would require eight or ten men to encircle it; thence it rises in a mass of narrow arms, corresponding to the direction of the roots, shooting upwards for many feet, like a series of planks joined together edge to edge.

It was upon the Boddo that I found the first specimens of *Anthocleista*. The flora of the Niam-niam countries contains several species of this genus of the Loganiaceæ, which is remarkable for the immense size and small number of its leaves that grow all together at the crown of a single stem running up without a branch.

After every ramble I turned my steps to Surroor's mbanga, and my visits there were always enjoyable, because I ever found something fresh that sensibly enlarged my knowledge of the country. There was invariably a large assemblage of natives about the vicegerent's court, and among them a considerable number of women; for Surroor, besides his thronging harem, kept a great many female slaves in attendance upon himself and his wives. As a guest of Mohammed's I was always treated here with the utmost respect. The most elaborate benches and stools were brought out for me to sit on, and Surroor's store of these exemplars of native art was inexhaustible.

The social position of the Niam-niam women differs materially from what is found amongst other heathen negroes in Africa. The Bongo and Mittoo women are on the same familiar terms with the foreigner as the men, and the Monbutto ladies are as forward, inquisitive and prying as can be imagined ; but the women of the Niam-niam treat every stranger with marked reserve. Whenever I met any women coming along a narrow pathway in the woods or on the steppes, I noticed that they always made a wide circuit to avoid



A NIAM-NIAM GIRL.

me, and returned into the path further on ; and many a time I saw them waiting at a distance with averted face, until I had passed by. This reserve may have originated from one of two opposite reasons. It may on the one hand have sprung from the more servile position of the Niam-niam women themselves ; or, on the other, it may have been necessitated by the jealous temperament of their husbands. It is one of the fine traits in the Niam-niam that they display an

affection for their wives which is unparalleled among natives of so low a grade, and of whom it might be expected that they would have been brutalised by their hunting and warlike pursuits. A husband will spare no sacrifice to redeem an imprisoned wife, and the Nubians, being acquainted with this, turn it to profitable account in the ivory-trade. They are quite aware that whoever possesses a female hostage can obtain almost any compensation from a Niam-niam.

During the time that Surroor had acted in the capacity of Mohammed's spearman, he had learnt to speak Arabic fluently, and was therefore able to give me considerable information on many points. I asked many local questions, since the unravelling of the confused hydrographical network in this part of the country was an object which I could never permit to be absent from my thoughts. I was not long, however, in discovering that these Zandey (Niam-niam), although possessing such uniformity in speech and customs, had no more knowledge of the remote parts of their country than the majority of the other natives of Central Africa. I may mention, as an instance of this, that no one in this district knew so much as the name of Mofio, whose territory indeed was 300 miles distant, but whose reputation, as one of the chief Niam-niam princes, might have been presumed to be wide-spread.

Hunting in this place, as far as we were concerned, was not to be thought of, as the region was far too thickly populated, and the Niam-niam themselves are such devoted huntsmen that they leave nothing for the stranger beyond the few francolins and guinea-fowl which may escape their snares.

During our sojourn, Mohammed Aboo Sammat, with his faithful black body-guard of true Zandey, had arrived from the Mittoo country. The entire united forces then prepared to advance to the south, Ghattas's agent and plenipotentiary not considering that a division could be ventured upon until we had gained sufficient assurance of the peaceful intentions of Wando, whose territory we should have to cross upon our route. Any apprehensions of hostility, however, were soon allayed, and for a time all went well.

By the 25th of February all the preparations for marching were complete, and, including all Aboo Sammat's and Ghattas's people, we were a body of little short of 1000 strong. Our marching-column was not much less than four miles in length, so that it happened more than once, after a short day's march, that those in front were erecting their huts with leaves and grass before those in the rear had lost sight of the smoke of the encampment of the previous night.

Only a small portion of my reserve of cattle was now remaining, and the maintenance of the men in the Seriba had quite exhausted the stores ; to Mohammed's great annoyance, even the sorghum-seed, which was to have been conveyed to Munza, king of the Monbuttoo, as a curiosity, had been consumed as material of diet, and thus the heart of Africa had been deprived of one advance in culture.

We proceeded, first of all, two leagues in a westerly direction, and, after crossing the Nabambisso and two smaller streams, we made our necessary halt. On the western boundary of the cultivated district subject to Aboo Sammat, and before we could venture to quit it, an adequate relay of provisions had to be procured from the neighbourhood.

The feeding of the bearers was an animated scene, enlivened as it was by the concourse of some hundreds of the Niam-niam people. The provision for the most part consisted of great lumps of pappy dough piled upon broad leaves, and served with strong-smelling sauces which were brought in pots, bowls, calabashes, and vessels of every variety. Drawn up on one side, in groups arranged according to the order of their arrival, stood the bearers, whilst the Niam-niam in throngs took their position on the other, and many an eager glance was thrown upon the preparations for the general repast. I took my sketch-book in my hand, and wandering through the ranks preserved my observations of the diversified tattooing which everywhere arrested the eye.

Almost immediately after starting on the following morning we crossed the Nabambisso, and our course subsequently lay across a group of low mounds of gneiss covered with an interesting vegetation. Here grew in great abundance the *Selaginella rupestris*, clothing the bare rock with a graceful carpet of verdure ; and here, too, for the first time since leaving the Red Sea, I was greeted with the sight of the Abyssinian aloe with its fiery barb. After surmounting the gneiss rocks we crossed the Nabambisso for the second time, and marching onwards in a southerly direction we reached a wide depression, called Yabongo, enclosed by dense bushes like the "Luche" in the Mark of Brandenburg. On the edge of the water many wild *Phoenix* of both sexes were flourishing with greater magnificence than any I had yet seen, their stems running to the height of some twenty feet. For a distance now there were no watercourses above ground to be seen, and shortly afterwards we entered upon another valley which was distinguished by the name of Yabo. The interval between the two hollows was filled by wood-

lands, graceful as parks, and adorned by many a large-leaved fig-tree bearing a multitude of figs much larger than those we ever grow.

While we were here, one of the Bongo bearers died from the effects of eating manioc before it had been prepared and divested of its poisonous parts. For twenty-four hours before his death he had lain in a state of coma, and a strong emetic had been entirely without effect. In the Niam-niam countries the manioc roots are of the same uncertain quality as those of South America, and the Bongo being unfamiliar with the differences, often do themselves serious injury on their expeditions by partaking of them indiscriminately.

Not long afterwards another of the Bongo people was carried off by a lion from the side of a bivouac fire ; and these two were the only deaths that occurred in the course of the two months that Mohammed's caravan was on its outward way.

Towards noon on the 27th of March we reached the Uzze, a small river running almost parallel with the Sway, and of about the same dimensions as the Hoo, only with a much slower current. The river-bed was twenty-feet wide, but at this period there was not more than a two-foot depth of water. The stream flowed along an open plain, unrelieved by trees, but animated by many herds of buffaloes, which we did not now stay to chase, but which afforded us excellent sport upon our way back. About two miles to the south of the Uzze we crossed the Yubbo, the two rivers here being quite close together, although they diverge again to a distance of several leagues towards the west before they ultimately unite and join the Sway.

The Yubbo at this time was fifty feet wide, and, like the Uzze, was only two feet deep ; it meandered along a low steppe which was obviously subjected to inundation, a fact that testified to the importance of the river in the rainy season.

After crossing the deep hollow of the bed of the Yubbo, we met some messengers who had been despatched by Ndallo, Wando's brother, to bid us welcome. Ndallo was chief of a district subject to his brother, with whom, however, he was by no means on good terms. From Ndallo himself, of course, we had no hostilities to fear, as nothing could be of more importance to him than to preserve his friendly relations with Mohammed. As we arrived at his mbanga some hours before night, I had time to make a short visit to a deep ravine at no great distance, that was watered by a streamlet called the Nakofoh, almost hidden by the dense groves upon its bank.

Our camp had meanwhile been improvised, a number of grass-huts having been speedily erected because of the threatening aspect of the sky ; towards evening for some days past there had been the appearance as if a storm were rising, but rain had only fallen twice since the beginning of the month, and even now the clouds were broken. On reaching the encampment I found Nduppo himself in company with Mohammed. I joined them at once, being as anxious as any one to get what intelligence I could about Wando and his intentions. It transpired that the feud between Nduppo and his brother had become so violent that Nduppo avowed that he lived in constant terror of being attacked and murdered by Wando's soldiers, and this cruel destiny which he foreboded did actually befall him a very few days after our departure. For ourselves, the following day would decide whether we were to have peace or war.

Our next move was to the quarters of Rikkete, another brother of Wando's, and who, holding the office of behnky, had remained faithful in his allegiance, and was consequently in avowed hostility to Nduppo. The three brothers were part of the numerous family of Bazimbey, whose extensive dominions, a few years previously, had been divided into six small principalities, a heritage which was a perpetual apple of discord amongst his sons. Bazimbey was one of the six sons of Yapahti, who still retain their rule over nearly all the eastern countries of the Niam-niam.

My personal appearance aroused the most vivid interest on the part of Nduppo and his suite. Their curiosity seemed insatiable, and they never wearied in their inquiries as to my origin. Theirs were the first exclamations of a kind which more or less frequently continued to be made throughout the rest of my journey. To their mind the mystery was as to where I could have come from ; my hair was the greatest of enigmas to them ; it gave me a supernatural look, and accordingly they asked whether I had been dropped from the clouds or was a visitor from the moon, and could not believe that anything like me had ever been seen before.

Throughout the whole of the territory that was subject to Wando, the clothing of all the people consisted of skins, as the fig-tree, of which the bark is so generally used in the south, does not thrive here at all well. For all those who require it, the bark has to be imported from the country of the Monbuttoo, and is consequently an article of luxury. Skins can ordinarily be obtained at a price which seemed to me ridiculously small. For the purpose of getting a few trifling additions which were necessary for my *cuisine* I was in the habit of

breaking up some of my larger copper rings into little bits, and I was very pleased to find how far these copper fragments would go in making purchases of skins of various kinds.

It is very strange how, notwithstanding this extraordinary abundance and cheapness of skins, traffic in them, as an article of commerce, is entirely unknown in Khartoom, where the dealers seem to have no suspicion of the large demand there undoubtedly would be.

Aboo Sammat was known amongst the Niam-niam by the name of "Mbahly" or "the little one," a designation given him long ago by the people, on account of the youthful age at which he had entered their country. Ndallo informed us that Wando had declared, with what was tantamount to an oath, that Mbahly should not this time escape, but that he and all his crew should be annihilated: he, moreover, told us that the threats had extended to myself. Wando, he said, avowed that he did not want any presents, and that all the beads in the world were nothing to him; if any offerings were sent he would trample them in the grass; if any stuffs were given to him he would rip them into shreds; plenty of copper he had already, and for that matter, plenty of ivory too, but he did not intend to part with any of it.

For a long time it perplexed me to discover the reason of Wando's animosity. Only two years previously he and Mohammed had been on the most friendly terms. Mohammed had visited him at his home, and the two had entered into the closest alliance, which had been sealed by Mohammed marrying his daughter; but, meanwhile, Mohammed had been in Khartoom, and during his absence he had entrusted the charge of his expeditions to his brother, who had fallen out with Wando. Mutual recriminations led to mutual plunder, and Wando was now in a rage that could not easily be suppressed.

Ndallo led us to understand that in the course of our next march we should receive definite tidings of Wando's intentions. If an attack were resolved upon, his whole force would be assembled and we should be prevented from going on to Rikkete; but if, on the other hand, we were permitted to reach Rikkete unmolested we might then be sure that there would be a temporary peace. And this in reality we found to be the case. As we were approaching Rikkete we were met by Wando's envoys bringing the accustomed conciliatory flasks of beer. Various circumstances might have weighed with the chieftain to induce him to postpone his outbreak. It is possible that he considered that while Aboo Sammat's and Ghattas's

companies were united and could muster 300 guns, the time was not arrived for an attack ; he also reckoned, with true African craftiness, that it would be more advantageous to himself to fall upon us on our way back from the Monbuttoo. He imagined, moreover, that, all our valuables which he now so contemptuously rejected would fall into his hands without the necessity of any ivory traffic at all, and that our stores (as being an unnecessary burden to be carried to the Monbuttoo and back) would be deposited in his charge until our return ; and in addition to all this, it is not unlikely that he counted with some certainty upon receiving plenty of presents from the liberal Kenoosian.

In order to be ready in a moment for any emergency, our caravan for the first time, on the 28th of February, set out on its journey arranged according to the rules of Nubian warfare. The entire body being drawn out in columns, the whole of the armed force was divided into three companies, each headed by its own banner. In front of all marched the first division of the troops, followed by the bearers with the linen goods, the bars of copper, and the store of beads ; in the middle of the train was the second division, which had charge of the bulk of the ammunition, chests of cartridges and boxes of powder and caps ; then followed the women and female slaves, whilst the third division brought up the rear. For the general security it was ordered that no straggler should be permitted to lag behind or to go farther back than the standard-bearer at the head of the third division. Independently of the main body, a troop of native soldiers, composed of Bongo and Niam-niam slaves, that had been armed and well trained by Aboo Sammat, was now detached to reconnoitre the thickets in front and on either hand, and to make sure that the advance was safe. As a general rule, these blacks made much more effective soldiers than the Nubians, and upon them fell the heaviest of all the work of war. Their employment of hunting, which is a pursuit much too laborious for their oppressors, makes them far more expert and practised shots, and besides this, they are heartier in their work and fear neither wind nor weather.

Whilst all the Nubians who carry guns are dignified by the high-sounding title of "Assaker" (soldiers), the natives who may be enlisted are called in the common jargon of the Soudan Arabic, either "Narakeek," "Farookh," or "Bazingir." The precise etymology of these various designations I could never ascertain. The "Narakeek," would appear to be the only men who are trusted

with the heavier guns, of which a considerable number, originally intended, no doubt, for elephant-hunting, are now found in the companies of the Khartoomers, and form what might be called their artillery. They are not loaded either with conical shot or with explosive bullets, but merely with a handful of heavy deer-shot; their action is very effective, and their first discharge amongst a party of savages rarely fails to send them scampering off at full speed.

It was in crossing the beds of the brooks and in getting through the thickets that bounded them that the greatest precautions were requisite. All our long experience had made us quite aware how easily a caravan may be thrown out of marching order and put into the greatest confusion by the mere irregularity of the soil, and under such circumstances every attempt at defence must be unavailing: bullets might do some service when deliberately aimed at an open foe, but would be utterly useless when fired at random from amidst a labyrinth of trees or in the obscurity of a thicket.

Between three and four hours were occupied in reaching Rikkete's mbanga. Half-way on our road, after crossing three smaller streams, we came to a larger one, which, like the others flowing to the south and to the east, passed near the hamlets which lay contiguous to Nduppo's frontier. Here we halted for our morning meal. Altogether it was a motley picture of African camp-life: the ravaged lands, the chattels of the fugitives scattered all around, the variety of platters, the corn-bins, the wooden mortars, the stools, the mats, and the baskets, all tumbled about at the pleasure of the intruders, conspired to make a spectacle of confusion so utter and so hopeless that the only relief was in resignation.

Beyond the stream our path turned directly to the south; hitherto its direction, though winding, had been mainly west. The continual fluctuations in the level of the land made me suspect that we were really approaching that watershed of the Nile for which I had been looking with such eager and impatient expectation. The ground, that had been sloping down towards the west all the way to Nduppo's mbanga, we now found sloping down towards the east, so that the streams that proceeded from this district to meet the Yubbo for a while flowed in a direction exactly opposite to that of the stream they were about to join. A comparatively important stream, the Lindukoo, at a little distance received all these other streams into its channel and was the last water connected with the system of the Nile that we had to cross. Over steepish hills, along defiles of slippery clay and through clefts and ravines which the rain-

torrents had capriciously hollowed out, our road led us onward to Rikkete. Contrary to our expectations we were received amidst the mingled noise of drum and trumpet, whilst a deputy from the chieftain stood in front of his huts to bid us welcome.

We encamped upon some ground that was still fallow, close to some groups of huts that were inhabited by Rikkete's wives and retinue; and behind it, under the shadow of imposing banks, flowed a brook called the Atazilly.

Mohammed entered into very amicable relations with Rikkete, and not only obtained some valuable tusks from him by way of traffic, but secured an ample supply of provisions for the immediate use of the caravan. Towards evening some messengers arrived from Wando, confirming his friendly intentions and bringing, as peaceful pledges, an offering of flasks of eleusine-beer.

Before tasting the proffered beer, Mohammed insisted upon Wando's emissaries emptying one gourd-shell after another for their own enjoyment, a proceeding which had the effect of considerably elevating the spirits of the party. The Nubian soldiers, pleased at the pacific turn that matters had taken, passed the night in chanting their carols, accompanied by the strains of the tarabuka; and the Bongo and Mittoo revelled and danced for many hours in their own fashion to the sound of their kettle-drums and horns.

There seemed now to remain no further obstacle in the way of the separation of the two companies; and, in order to complete the preliminary arrangements for the division, it was decided that we must remain for a whole day with Rikkete, a determination which was hailed by myself with much satisfaction. Ghattas's corps was to be accompanied by a detachment of one hundred of Aboo Sammat's soldiers, and to take its departure for what formerly had been Keefa's territories in the west and south-west, where they hoped to transact a remunerative business. In consequence of the absconding of the natives, the main company of Ghattas had been left destitute of bearers. After the reduction, an armed force of 175 was left for our protection as we proceeded on the remainder of our way to the Monbuttoo.

I could not resist spending the day of our halt in an excursion. Accordingly, having enlisted the services of some natives as guides, I started off with all my people, who had to carry my heterogeneous appliances, which consisted of guns, portfolios, boxes large and small, cases, ropes, towels, stock-shears and hoes. Crossing the Atazilly, and wading by the side of the stream through the swamps

which were crowded with jungles of amomum as high as myself, and adorned with the rosy blossoms of the *Melastomaceæ*, I proceeded for three-quarters of a league across the steppe until I reached the stream to which I have referred already, called the Lindukoo or the Undukoo.

Here there opened to my view one of the most magnificent prospects that forest scenery could afford; the gigantic measure of some of the trees was altogether surprising, but yet, on account of their various heights, their foliage lay as it were in strata, and the denseness of the ramification wove the branches into a chaos as picturesque as it was inextricable. A merry world of apes was gambolling on the topmost boughs; two of the larger species of monkeys (*Cercopithecus*) were also represented, as well as members of the *Galago* family, which are half-blinded by the glare of daylight. *Colobi*, too, with their long silvery hair, were conspicuous as they flitted across the dark gaps that were left in the lower branches, or as they scampered along the more horizontal arms of the trees above. Numerous, however, as they were, I had no chance of securing a single specimen, as my shot, when aimed to an altitude of seventy or eighty feet, was spent in vain. The guinea-fowl, as ever, afforded prolific sport, their large grey bodies standing out distinctly against the fresh verdure.

Accompanied as I was by only a small number of armed men, I could not be otherwise than sensible how completely, if they chose, I was in the power of the natives. I was encouraged, however, to believe that the engagement made was perfectly reliable, as, except under that conviction, consent would never have been given for the armed forces to divide.

My Niam-niam guides rendered me the greatest service; not only did they enter very heartily into my pursuits, climbing up the lofty trees without hesitation to reach the produce of the topmost boughs, but they made me acquainted with the native names of all the plants.

Though the hollow gorge of the river sank for some eighty feet, there were trees at the bottom whose crests were level with the land above. The protruding roots amid the landslips, just as in our own mountain hollows, served as steps; and all along, abundant as in Alpine clefts, there sprung up many a variety of graceful ferns.

I proceeded north-west for a considerable distance up the stream, and having laboriously crossed and recrossed the swampy bed of the valley, I returned in the evening to my quarters with my portfolios enriched beyond my most sanguine expectations.

In the glimmer of dawn we were aroused by the accustomed signals. Two of the Bongo in Mohammed's service had learnt at Khartoom how to blow their trumpets and beat their drums for this important function, and they sounded the Turkish *réveil* admirably, giving it the full roll and proper compass. The Niam-niam were quite delighted with the strain, and frequently could be detected humming the melody to themselves.

Our caravan was accompanied by a large number of guides and natives who were eager to show the way, as a stiff day's march was before us, and a passage over several difficult watercourses had to be accomplished. The morning toilette of the Niam-niam guides was singular enough. In order to protect themselves against the chilly damp of the early dew as they marched along the narrow pathways of the steppes, they covered the entire front of their body with some large skins, which made them look as if they wore coopers' aprons. For this purpose there is no skin that looks more picturesque than that of the bush-bock, with its rows of white spots and stripes upon a yellow-ochre ground. The bearing of the Niam-niam is always chivalrous as becomes a people devoted to war and to the chase, exhibiting a very strong contrast to the unpolished nonchalance of the Bongo, the Mittoo, and even of the finicking Arabians. The Niam-niam might be introduced straight upon the stage, and would be faultless in the symmetry with which they would go through their poses.

Our way took a turn beyond the Atazilly across the same steppe over which we had passed yesterday. After an hour we arrived again at the Lindukoo, which here forms a considerable cataract of some thirty feet deep over the worn and polished gneiss. A thick bank-wood shaded the rocks, which were charmingly adorned with the rarest ferns, and a regular jungle of tangled foliage canopied the depth beneath which the rosy blooming ginger-bushes grew as tall as a man, and scented the air with their fine aroma. Just for half-an-hour we halted upon the high and dry levels that we found, and regaled ourselves with refreshment from our store of provisions.

The direction which the river Lindukoo was taking appeared to me to be exactly the reverse of that in which flowed the current of the Yubbo; and, in spite of the positiveness on the part of the guides, all their statements left my mind unconvinced, and in a state of considerable perplexity. But two months later, when I had again to cross the river some distance further to the east, my presentiment was thoroughly confirmed. The formation of the land just here is very

uneven and irregular; quite in contrast to what it was observed to be both previously and subsequently upon our progress. With the Lindukoo, then, I was bidding farewell to the district of the Nile. Many as there had been before who had undertaken to explore the mighty river to its fountain-head, here was I, the first European coming from the north who yet had ever traversed

THE WATERSHED OF THE NILE.

Upon this memorable day in my life, I confess I had no real knowledge of the significance of the soil upon which my steps were tarrying, for as yet I could know nothing of the configuration of the country before us. The revelation of the truth about this watershed only became apparent to me after I had gathered and weighed the testimony of the Niam-niam, which sufficiently demonstrated that the next river, the Mbrwole, belongs to the system of the Welle.

With the exception of the high ridge on the north of the river Lehssy which the Niam-niam call Mbala Ngcea, there was nowhere, along the entire line from the Gazelle to the Welle, any wide difference observable in the conformation of the land. But southwards from the Lindukoo, it was all uphill and downhill, and through defiles, hill-caps rising and falling on either side, high enough to be prominent over the undulations that were around them. These undulations were everywhere of that red hue which rendered it all but certain that they were only elevations of that crust of recent swamp-ore which is so widely diffused in Central Africa. The higher eminences that rose above were of a far earlier formation, being projections of gneiss, the weather-beaten remnants of some primeval mountain ranges, gnawed by the tooth of time, and worn down from jagged peaks to smooth and rounded caps. Subsequently, on my return at the end of April, I pushed my way beyond these elevations of the gneiss, and penetrated farther east, into the narrower limits of the watershed.

This uniformity in geological formation of a district so immense, as far as it is known, is certainly very remarkable. The source of the Dyoor is the only exception, and presents some variety in stratification. Everything points to the fact that since the era of the formation of the swamp-ore (spreading as it does from the banks of the Dyoor to the Coanza, and from Mozambique to the Niger) there has been no alteration in the surface condition of the land except what has occurred by reason of the watercourses finding

new directions for themselves along the loose and yielding deposit. And even when the elevations are taken into account which have caused whole chains of hills to arise, such for instance as those which encircle the basin of the Tondy, still I am inclined to believe that there too the existence of the valleys and depressions is to be explained by no other hypothesis than the perpetual mutability of the channels by which the streams have forced their way.

Followed in our course from the Lindukoo by a side stream which discharged itself by a waterfall, we arrived at the regular watershed, which, judging by my aneroid, which had not varied for four years,* I should estimate at 3000 feet high. Passing onwards we came to a brook called Naporruporoo which rippled through a gorge some seventy feet deep. The stem of a great tree had been thrown across the chasm, and by means of this we were enabled to pass over without being under the necessity of making a descent. As we proceeded, the peaks of the trees which grew beneath were some way below the level of our feet. After a while, we had first to cross another, and then another of these streams which at no great distance united themselves in one common channel.

The stream I have just mentioned was at the bottom of a valley some eighty feet deep, and, as its banks were almost perpendicular, the bearers had to make the most strenuous exertions to ascend. They had to help each other up, and the baggage therefore had to be passed on from one to another of the men, and then to be laid down awhile that they might have their hands at liberty to help them as they climbed. To accomplish this difficult passage at all with four-footed beasts of burden it would have been requisite to make a very long and arduous *détour*. The detention, however, to which the difficulty subjected the caravan was not in any way a loss to me; it gave me time to stay and gather up what I would of the botanical treasures of the place, which in luxuriance seemed to me to surpass all that as yet I had seen. The valley was so deep that no ray of sunshine by any possibility could enter it. The pathway was barely a foot wide and wound itself through a mass of waving foliage. There was a kind of Brillantaisia with large violet blossoms that I found close by the way; and I stayed to arrange in my portfolio, for future investigation, some of its leaves, waiting while our lengthy procession passed along. Squeezed up in a labyrinth of boughs and creepers, and wreathed about with leaves, I sat as

* The precise calculation was afterwards lost in the fire.

though I were in a nest. These opportunities were several times repeated, in which I found I could get half an hour at my disposal, and could botanize without disturbance ; then as soon as the caravan had filed past I took advantage of the first open ground to regain my position near the front.

So numerous were the hindrances and so great the obstacles which arose from the ground conformation of the watershed that our progress was necessarily slow.

About four miles from Lindukoo we reached the Mbrwole, which the Nubians without further description simply call "Wando's River." It was here bordered by wood, and had a breadth of about eighty feet, though its depth did not exceed two feet, the flow of the stream being what might be described as torpid.

Aboo Sammat's people gave us all the particulars of the year's luck in hunting, and dwelt much upon the circumstance of a chimpanzee having been killed, an event which was evidently very unusual. The woods that composed the "galleries" were dense and manifestly adapted to be a resort of these creatures. The fact was of considerable interest as relating to the watershed, because in none of the more northerly woods had I ever been able to acquire any evidence at all that the chimpanzee had been known to exist. It was remarkable that the first trace I found of this race of animals was upon my reaching the first river that was unattached to the system of the Nile.

Again for two hours we made a pause. The Nubians enjoyed a bright cool bath, the long column of bearers still toiling onwards with their loads.

Farther on, a march through a flat and open steppe led us after a few miles to a deep glen so thick with wood that it occupied us at least half an hour in crossing. Its bottom was a wide marshy streak over which there was no movement of the water, that seemed to be entirely stagnant. A new type of vegetation revealed itself, one never observed in the Nile lands by any previous traveller. This consisted of the thickets of Pandanus, which were to my mind an evidence of our having entered upon a new river-district altogether, the plant being an undoubted representative of the flora of the western coast.

And now we had to make our first experience of the various artifices by which the transit over these marshes has to be accomplished ; not only would it be impossible for a carriage of any description or for any one on horseback to go over, but even when

the baggage was conveyed by hand there was the serious risk of anyone seeing all that he most cared for, his clothes and his journals, tumbling from the bearers' heads and sinking in the filthy slime. Mouldering trunks of trees there might be, but to place the foot upon these was to find them roll like a wave in the waters; others would be too smooth and slippery to allow a step to be trusted to their treacherous support; and then the deep continual holes would either be filled by water or covered with a floating vegetation which betrayed the unwary footsteps into trouble, so that there was no alternative for the bearers but to jump from mound to mound and keep their balance as best they might: to no purpose would they try to grasp at some support; the prickly leaves of the Pandanus, notched and jagged on the edges as a saw, made them glad to withdraw their tortured hand.

For miles away the deserts re-echoed back the shouts of the bearers as they splashed through the waters; and the air around reverberated with the outcry, with the mingled laughing and swearing of the Nubians, and with the fluster of the women-slaves as they jostled each other in carrying their dishes, gourd-flasks, and calabashes, through the prickly hedges. Every now and then would arise a general shriek, half in merriment, half in fright, from a hundred lungs, betokening that some unlucky slave had plumped down into a muddy hole, and that all her cooking utensils had come tumbling after.

Dressing and undressing on these occasions was tiresome enough, but it was not the whole of the inconvenience. When the task of getting across had been accomplished, there still remained the business of purification; and no easy matter was it to get free from the black mud and slime that adhered tenaciously to the skin. It almost seemed as if Africa herself had been roused to spitefulness, and was exhibiting her wrath against the intruder who presumed to meddle with her secrets. With a malicious glee she appeared to be exulting that she was able to render the white man, at least for the time, as black as any of her own children; nor was she content till she had sent a plague of mud-leeches to add to his discomfort. Naked and shivering she let him stand even in the mist and rain of a chilly dawn; and no help for him till some friendly hand should guide him to a pool where the water still was undefiled, and he could get a wash. And then what a scraping! How ruefully too would his eye fall upon the ugly blood-suckers which clung about his legs! To make these relax their hold, recourse must be had to

the powder-flask ; and, after all, the clothes would be saturated with the blood that had been shed in vain. As for the things that had been splashed and wetted in the turmoil of the passage, they were laid out either upon a cluster of trampled fern-leaves or upon any little spot that seemed to give them a chance of drying.

The sun was already declining, and we had still three of these bogs to pass over, each with its running stream that would delay us for half an hour more. Of these three, the second was the largest, and was known by the name of Mbangoh.

The shades of night had gathered, when, after passing the last of the rivulets, we arrived at some farms in a cultivated spot. There was indication of rain, and a great deal of commotion ensued in taking precaution against it ; luckily, however, we escaped with only a few heavy drops, and having been relieved from anxiety by a general clearing of the weather, we enjoyed the good night's rest which our hard day's toil had earned.

In order that we might arrive at Wando's residence in good time on the following day, we made our start punctually at sunrise. After we had marched for half a league over open steppe, and had effected our passage over the Dyagbe, the signal was sounded for the morning halt.

Mohammed here expressed his intention of having a preliminary conference with Wando before we definitively pitched our camp, and borrowing my revolver, as he had done before, he set out with the utmost composure, attended solely by his black body-guard, the Farookh. At the head of these he hurried away at a pace so fast that the lads who carried his arms could scarcely keep up with him. It is characteristic of the Nubians that whenever they have important transactions on hand they always move with extreme rapidity.

Within an hour Mohammed returned, perfectly content with his interview, and proceeded at once to conduct the caravan to the station allotted to it, close to the banks of the Dyagbe, and just about the distance of an arrowshot from the wall of foliage which formed the confine of the primeval forest.

Every hand was set to work, and in a very short time a number of pretty little huts was erected with no other material than the fresh grass ; and when the baggage had all been properly secured there commenced a brisk and very amicable commerce with the natives. Fine elephant-tusks were brought for sale, and found no lack of ready purchasers. Presents of cloth and beads were freely distributed, for the double purpose of putting the people into a good

mood and of inducing them to disclose new resources for procuring ivory. Wando himself appeared arrayed in a large shirt of figured calico, made with long sleeves, which he wore (in the same way as all the other native chieftains) solely out of compliment to the donor. As soon as the visitors withdrew he deemed it an attire below his dignity.

The cannibal prince, of whom for some days we had been in such dread, looked a harmless mortal enough as he strolled through the camp arm-in-arm with Mohammed's officers ; no doubt they had enjoyed a mutual drink to each other's health.

The kind of beads which the Niam-niam prefer wearing, when they can procure them, is that which is known in Khartoom commerce as " mandyoor," consisting of a long polyhedral prism, about as large as a bean and blue as lapis lazuli. Hardly any other kind retains any value at all. Cowries are still used as a decoration on the national costume, but the demand for them is not great, and for ten years past they have not formed at all an important item in the Khartoom traffic. Fashion extends its sway even as far as these remote wildernesses, which have their own special demand for " novelties."

As medium of exchange, nothing here was of any value except copper and iron, which never failed to be accepted in payment. English copper, which the Khartoomers take with them in long bars about three-quarters of an inch thick, is most in repute ; but not unfrequently they make use of the lumps of copper which they obtain from the mines to the south of Darfoor. With any other resources for obtaining copper the inhabitants of the country through which I travelled appear to be hardly acquainted, though possibly the Congo region might, in former times, have found an outlet for its store in this direction.

So full of bustle was our camp that it was not till nightfall that I had had an opportunity of inquiring from Mohammed what had transpired during his interview with Wando. I now learnt that the revolver he had borrowed had done him a good turn. He had hurried on in front of his escort, and had gone boldly to the chieftain to reprimand him for his equivocal behaviour ; but he had no sooner entered the hut than he was encircled by a troop of Wando's satellites, who levelled their lances at him in a most threatening attitude. He felt himself a prisoner, but, undismayed, he cried out that his life should cost them a thousand lives, and, snapping the revolver, he dared them to touch him at their peril. The intimidated

Niam-niam at once assumed a much milder tone, and, thanks, as Mohammed said, to his temerity, everything turned out well.

We remained in Wando's camp from the 2nd to the 6th of March. The wood at Dyagbe was most luxuriant, and every day it unlocked to me new and untold treasures, which were a permanent delight. Here, too, was unfolded before my gaze the full glory of what we shall in future understand as "a gallery."

My predecessor, the Italian Piaggia, whose meagre description of the Niam-niam lands betrays, in spite of all, an acute power of observation, has designated these tracts of bank vegetation as "galleries." The expression seems to me so appropriate and significant that I cannot help wishing it might be generally adopted. I will endeavour briefly to state in what the peculiarities of these "galleries" consist.

In a way that answers precisely to the description which Dr. Livingstone in his last accounts has given of the country to the west of Lake Tanganyika, and which is not adequately accounted for either by the geological aspect of the region or by any presumed excess of rain, there is sometimes found a numerical aggregate of springs which is beyond precedent. These springs result in a perpetual waterflow, which in the north would all be swallowed up by the thirsty soil of low and open plains, but which here in the Niam-niam country is all restrained within deep-cut channels that form, as it were, walls to confine the rippling stream. The whole country, which is nowhere less than 2000 feet above the level of the sea, is like an over-full sponge. The consequence of this is, that many plants which in the north disappear as soon as the fall of the waters deprives them of their moisture, are here found flourishing all the year round; so that all the vales and chinks through which the water makes its way are permanently adorned with a tropical luxuriance. The variety of trees and the manifold developments of the undergrowth conspire to present a spectacle charming as any that could be seen upon the coast of Guinea or in the countries which are watered by the lower Niger. But, notwithstanding all this, the vegetation altogether retains its own specific character up in the higher tracts between stream and stream, and corresponds to what we have been familiar with ever since we put our foot upon the red soil of Pongo-land, being a park-like wood, of which the most conspicuous feature is the magnitude of the leaves.

I have previously had occasion to mention how a dualism of the same kind marked the vegetation of the whole country south of

the Hoo, where the formation of the land first changed from the monotonous alternations between low grass-flats and undulated wood-terraces. It would almost seem as if the reason for the altered law which presides over the watercourses is to be sought in the increasing elevation of the soil, and in the opening of the lower plain of the swamp-ore, which, being furrowed with a multitude of channels, allows the unfailing supply of the numerous springs to flow away.

Trees with immense stems, and of a height surpassing all that we had elsewhere seen (not even excepting the palms of Egypt), stood here in masses which seemed unbounded except where at intervals some less towering forms rose gradually higher and higher beneath their shade. In the innermost recesses of these woods one would come upon an avenue like the colonnade of an Egyptian temple, veiled in the leafy shade of a triple roof above. Seen from without, they had all the appearance of impenetrable forests, but, traversed within, they opened into aisles and corridors which were musical with many a murmuring fount.

Hardly anywhere was the height of these woods less than 70 feet, and on an average it was much nearer 100; yet, viewed from without, they very often failed to present anything of that imposing sight which was always so captivating when taken from the brinks of the brooks within. In some places the sinking of the ground along which the gallery-tunnels ran would be so great that not half the wood revealed itself at all to the contiguous steppes, while in that wood (out of sight as it was) many a "gallery" might still exist.

Most of those gigantic trees, the size of the stems of which exceed any of our own venerable monarchs of the woods, belong to the class either of the *Sterculiæ* or the *Boswelliæ*, to which perhaps may be added that of the *Cæsalpiniæ*; the numerous Fig-trees, the *Artocarpeæ*, the *Euphorbiaceæ*, and the endless varieties of the *Rubiaceæ*, must be entirely excluded from that category, and few representatives of this grade belong to the region of the under-wood. Amongst the plants of second and third rank there were many of the large-leaved varieties, and the figs again, as well as the *Papilionaceæ* and especially the *Rubiaceæ* had an important place to fill. There was no lack of thorny shrubberies; and the *Oncoba*, the *Phyllanthus*, the *Celastrus*, and the *Acacia ataxacantha*, cluster after cluster, were met with in abundance. Thick creepers climbed from bough to bough, the *Modecca* being the most pro-

minent of all; but the *Cissus* with its purple leaf, the *Coccinea*, the prickly *Smilax*, the *Helmiæ*, and the *Dioscoreæ* all had their part to play. Made up of these, the whole underwood spread out its ample ramifications, its green twilight made more complete by the thickness of the substance of the leaves themselves.

Down upon the very ground, again, there were masses, all but impenetrable, of plants of many and many a variety, which contributed to fill up every gap that was left in this mazy labyrinth of foliage. First of all there were the extensive jungles of the *Amoma* and the *Costus* rising full fifteen feet high, and of which the rigid stems (like the haulms of the towering grass) either bar out the progress of a traveller altogether or admit him, if he venture to force his way among them, only to fall into the sloughs of muddy slime from which they grow. And then there was the marvellous world of ferns destitute indeed of stems, but running in their foliage to some twelve feet high. Of all other ferns the most singular that I observed was that which I call the elephant's ear (*Platycerium elephantotis*). This I found up in trees at a height of more than 50 feet, in association with the *Angræca* and the long grey barb of the hanging *Usneæ*.

Whenever the stems of the trees failed to be thickly overgrown by some of these different ferns, they were rarely wanting in garlands of the crimson-berried pepper which twined themselves around. Far as the eye could reach it rested solely upon green which did not admit a gap. The narrow paths that wound themselves partly through and partly around the growing thickets were formed in steps consisting of bare and protruding roots which held the light loose soil together. Mouldering stems, thickly clad with moss, obstructed the passage at well-nigh every turn. The air was no longer that of the sunny steppe, nor that of the shady grove; it was stifling as the atmosphere of a palm-house; its temperature might vary from 70° to 80° Fahr., but it was so overloaded with an oppressive moisture exhaled by the rank foliage that the traveller could not feel otherwise than relieved to escape.

I had already made the acquaintance of Wando's sons, but hardly expected the honour that Wando himself paid me by visiting me in my tent. He was somewhat below a medium height, but could show a large development of muscle, and no insignificant amount of fat. His features were of so marked and well-defined a character, that in their way they might be pronounced good, the head itself being almost perfectly round. Savage as he was, his composure

and native dignity were those of which no European when receiving homage would need to be ashamed.

It was commonly said of Wando that he was the avowed enemy of all cannibalism. But the sentiments of the chieftain did not appear to exercise much influence upon the majority of his subjects, as we only too soon became aware as we advanced farther to the south.

This visit of Wando's gave me an opportunity, of which I did not omit to avail myself, of entering my indignant protest against the want of hospitality with which on his part we had been received. I recounted to him by way of contrast the many acts of liberality which had been shown us by the Nubians in general, assuring him that my dogs had received more care from them than I, their master, had received from him, king though he was; to supply my dogs with meat, goats had been killed, and for myself bullocks had never been spared. Wando remonstrated, saying that he had neither one nor the other; but I made him understand that he had plenty of poultry, certainly enough, and more than enough, for me and my people. Finally, I proceeded to let him know what I thought of his hostile demonstration before our arrival; and while I spoke I dashed my fist upon the camp-table which stood before us, till the plates and drinking-vessels clattered and jingled again. He looked thoroughly ashamed of himself, and hurried back to fulfil his promise of sending provisions without stint or delay.

Almost immediately afterwards a number of his people came teeming in, bringing not only some lean and half-fed poultry, but a lot of great black earthen pots which they laid down as offerings from their master at the opening of my tent. A revolting smell of burning oil, black soap, and putrid fish rose and stunk in the nostrils of all who were curious enough to investigate, even from a distance, the contents of the reeking jars; to those who were so venturesome as actually to peer into the vessels, there was revealed a dark-coloured stew of threads and fibres, like loosened tow floating between leather shavings and old whip-thongs. Truly it was the production of a savage, and I may say of an indigenous, cookery, such as our progenitors in their primeval forests might have prepared for themselves out of roast-rhinoceros or mammoth-foot. There seemed a rebound in the lapse of time. As matter of fact, the caldrons were full of a burnt smoky *ragoût* made from the entrails of an elephant some two hundred years old, very tough and exceedingly rank. This wonderful example of nature's earliest promptings

was handed first to me by the Bongo bearers, whom I at once begged to accept for themselves the dainty dish of the savages; but even the Nubians, not at all too fastidious generally in anything which their religion permits them to eat, rejected the mess with the greatest disdain.

It had hapj ened some years before, as one of Ghattas's companies was making its way across Wando's territories, that six Nubians were murdered in the woods by some natives who had accompanied them to the chase, professing to be their guides. As soon as the Nubians had fired away all their ammunition in shooting at their game they had no means of defence left in their power, and consequently were easily mastered. Mohammed at once sent to demand the six guns, which beyond a doubt were in the possession of Wando's people—so anxious was he to prevent the natives from becoming acquainted with the use of firearms. Wando commenced by denying his ability to meet the demand, and then resorted to procrastination; but subsequently, pressed by Mohammed, who declared that the continuance of his friendly relations must depend upon the restitution of the guns, he surrendered four of them, asserting that the others could not be found.

On the second day after our arrival at Wando's residence, attended by a considerable number of natives and a dozen soldiers, I made an excursion out for about two leagues northwards along the banks of the Dyagbe. According to the statements of my guides, who were hunters by profession, chimpanzees were numerous, but we certainly did not get a glimpse of one. Very weary with the exertion of tramping over the marshy ground I was rejoiced to bring back into camp an ample booty in the way of botanical rarities.

During our travels I had obtained from the Niam-niam who accompanied our caravan an epithet which I never lost in all the subsequent stages of our journey. In their own dialect these people called me "Mbarik-pah," which would be equivalent to a name amongst us of "Leaf-eater."

My Niam-niam interpreter Gyabir, as I learnt some time afterwards, had given his friends some marvellous accounts of the way in which I was accustomed to eat whatever I found growing. He used to relate that I had a habit of dismissing my attendants and getting into a dense thicket where I imagined that I was unobserved, and that then I used with great haste to gather and devour enormous quantities of leaves, and he added that this was the way in which, one day after another, I groped after my ordinary food.

Others contributed their observation that I invariably came forth from the woods with an exhilarated expression and quite a sated look, whilst they were conscious of nothing else than the cravings of hunger. After all it was very natural ; for the inspiration which is derived from contemplating Nature can elevate one far above his mortal and bodily wants.

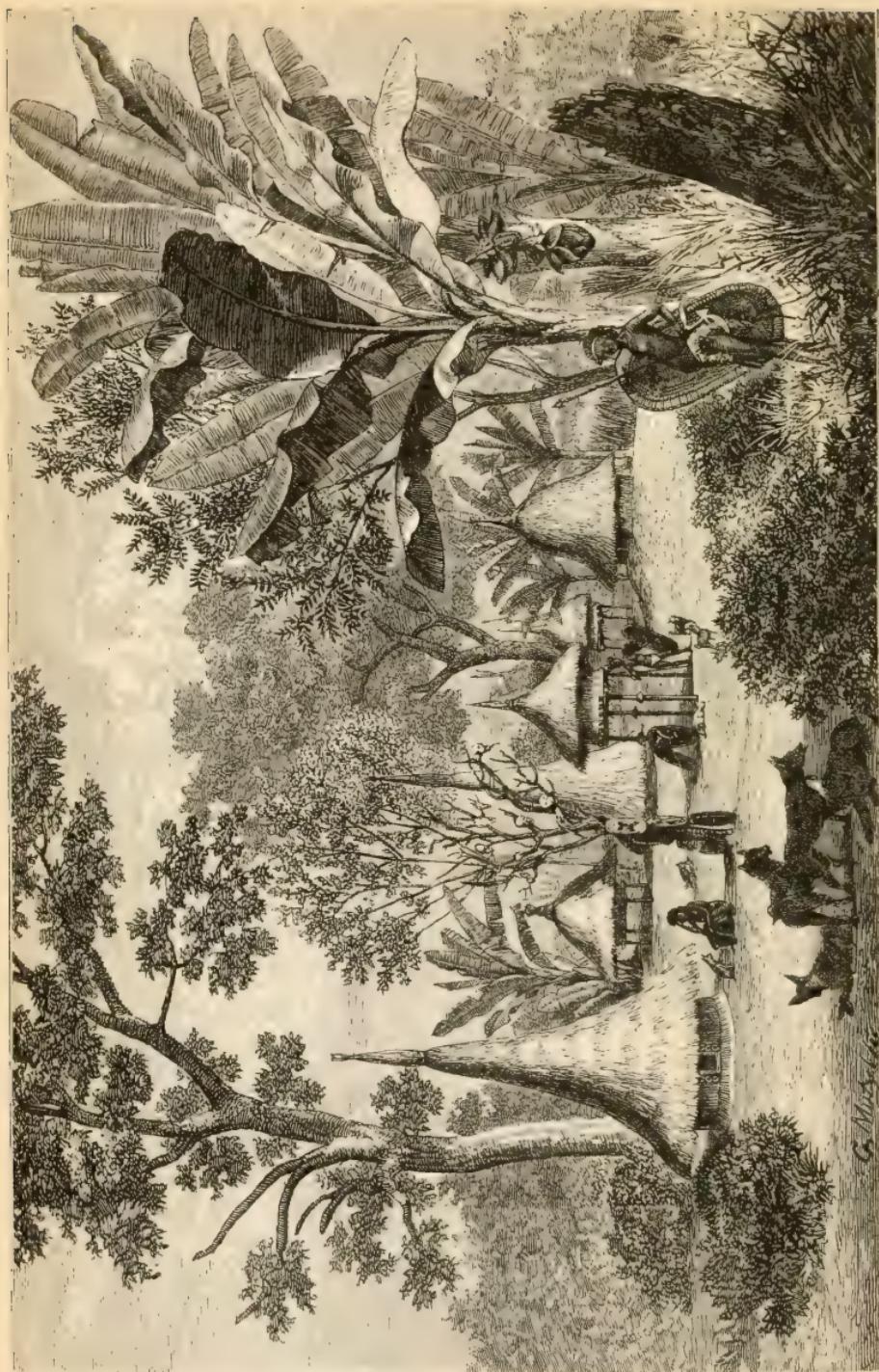
The dominant idea which seemed to be impressed upon the natives by my botanical ardour concentrated itself upon their conviction as to the character of the country where the white man has his home. According to their belief the land wherein the white men spent their lives could show neither grass nor tree, and consisted of nothing better than sandy plain and stony flat. Those amongst them who had been carried away as slaves in the ivory expeditions and had returned again from Khartoom had brought strange accounts of the grim desolation and utter drought of the Moslem lands over which they had passed ; and what, they asked, must be the condition of the still remoter countries of the Frank, of whom they only knew that he kept the Turk supplied with cotton-stuffs and guns ?

CHAPTER VII.

Intelligence of Nduppero's death—Hunting-trophies—Signs of cannibalism—The Chimpanzee—Presents of chimpanzee-skulls—The A-Banga—New style of huts—Fertility of land—The pushyoh—Cam-wood—Sham-fight—Magic lucifers—Interchange of blood—Gyabir wounded—Modes of expressing pain—Female slaves captured—White ants—Monbutto frontier—Reception by Nembey—Bongwa and his wife—Cattle of the Maogoo—Cultivation of sugar-cane—Arrival at the Welle—Condition of the stream—Origin and relations—Crossing the river—Monbutto canoes—New impressions—Arrival at Munza's residence.

At sunrise, on the 6th of March, we took our departure from the abode of Wando. For our security on the way, the caravan was attended by a number of guides which the chieftain had placed at our disposal. Just before starting, the intelligence arrived of the death of Nduppero, the alienated and hostile brother of Wando. A party of armed men had been despatched by Wando, and after a short conflict they had killed the enemy. Nduppero's wives and children had taken refuge in Mohammed's Seriba, where they met with a hospitable reception and were provided with the residence and provisions that were necessary for their support.

The route of the first day led us along the right bank of the Dyagbe, past Wando's tall conical huts, and through a gallery of picturesque wood scenery. Having forded the stream which, plentifully supplied with water, resolved itself into several channels, we rested on the farther side amidst the outlying homesteads of the district. After a brook of smaller dimensions had been crossed and more groups of huts had been left behind, the caravan arrived at a stream of considerable magnitude known as the Billwey, but which so much resembled the Dyagbe in the shady character of its banks that it might very easily be mistaken for it. Then ensued two of the "gallery" paths, the first being quite small, the other somewhat larger and known by the name of Mono. The district still seemed to be fairly populous, and from all sides we were met by people who



came to us partly to offer their services as guides, and partly to learn what particulars they could about the intentions of the caravan. There was a coming and going which a European might compare to the bustle of a general holiday at home.

Without stopping, however, we continued our progress, and by noon we reached a brook called Diamvonoo, one of the gallery-streams, of which the banks were enclosed by dwellings. Here we halted close to the huts of the superintendent of the place.

The Niam-niam residences seem never to fail in having some posts which the natives erect for the purpose of displaying, in proof of their bravery, whatever trophies of success they have gained either in hunting or in war. To this practice, as established on the Diamvonoo, my osteological collection is indebted for some considerable additions. Attached to the projections of these memorial posts were skulls of antelopes of many a species, skulls of little monkeys and of great baboons, skulls of wild boars and of chimpanzees, and I must not hesitate to add, skulls of men! These were in some cases quite entire, whilst in others they were mere fragments. They were fastened to the erections like the presents on a Christmas-tree, but instead of being gifts for children, they were treasures for the comparative anatomist. Too decisive to be misunderstood were the evidences of the propensity to cannibalism which met our astonished gaze. Close to the huts, amongst the piles of refuse, were human bones, which bore the unquestionable tokens of having been subjected to the ha'chet or the knife; and all around upon the branches of the neighbouring trees were hanging human feet and hands more than half shrivelled into a skeleton condition, but being as yet only partially dry, and imperfectly sheltered by the leaves, they polluted the atmosphere with a revolting and intolerable stench. The prospect was not inviting, and the asylum offered to travellers was far from tempting; but we did not suffer ourselves to be discouraged, and made up our minds to be as comfortable as we could in our little huts.

Taking into account the large number of skulls of chimpanzees, more or less perfect, which I saw in the hamlets on the Diamvonoo, I am sure that I am quite justified in my impression that this spot must be one of the centres from which these creatures circulate their kind. Upon the West African coasts the prevalence of the chimpanzee breed is very considerable, extending from the Gambia down to Benguela. But in the interior, on the other hand, the haunt of the chimpanzee has hitherto been supposed to be limited to the

country of the Niam-niam. Previous to my arrival the Khartoom people had been the means of securing some defective skins, which were sent to various museums, and these were quite sufficient to confirm the fact of the existence of chimpanzees in that quarter.

The chimpanzee of Central Africa, to judge from the specimens that have found their way to European museums, differs in many respects from the true *Troglodytes niger*, E. Geoffr., and may be accounted as a separate race which in the lapse of time has developed itself, and adapted its condition to subsistence in far out-lying regions. Professor Giglioli, of Florence, has classified it as a subsidiary kind or sub-species, to which he has assigned my own name, because, in 1866, I was the first to bring any definite information about it. In a work* elaborated with the utmost care he has collected every detail that science offered to his hand. According to Giglioli the chimpanzee of the Niam-niam countries was distinguished from the *Troglodytes niger* of Western Africa by the large capacity of its brain chamber, which he thought could very probably not be matched by any other species. We are indebted to Professor R. Hartmann, of Berlin, for a monograph† which has collected into one view, and may be said to exhaust, all the material which has hitherto been brought to bear upon this topic. From a comparison of a very large number of specimens of very various origin, he has come to the conclusion that the Niam-niam chimpanzee has no such marked distinction as to isolate it in a systematic sense, and that notwithstanding some subordinate characteristics of race, it must still be reckoned as one amongst the many forms of the *Troglodytes niger*.

It was getting well onwards towards night, and by the red glare of the pitch-torch which is the invariable resource for lighting the Niam-niam huts, I was getting my supper, in the simplicity of the primitive times of creation, off sweetened plantains and tapioca, when I was interrupted by a visit from some of the natives who lived close at hand. They had come to dispose of a collection of fine skulls of the chimpanzee, and I effected the purchase by means of some large copper rings. The people told me of the abundance of these creatures in the adjacent woods, and related a number of the adventures which had befallen them in their arduous attempts to capture them: they promised, moreover, to bring me some further

* 'Troglodytes Schweinfurthii Gigl. in Studii Craniologici sui Cimpanze.' Genova, 1872.

† Reichert's and Du Bois Raymond's 'Archiv.' Berlin, 1872.

contributions for my collection, but unfortunately I could not wait to receive them ; we could not prolong our stay because of the scarcity of provisions, and we had to start betimes on the following morning.

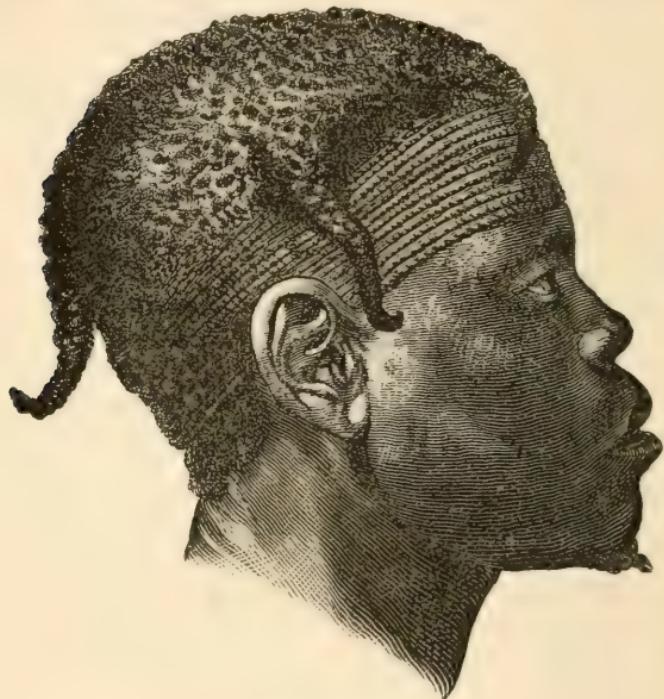
It was not my good fortune to witness a chimpanzee-hunt. This is always an arduous undertaking, involving many difficulties. According to the statements of the Niam-niam themselves the chase requires a party of twenty or thirty resolute hunters, who have to ascend the trees, which are some eighty feet high, and to clamber after the agile and crafty brutes until they can drive them into the snares prepared beforehand. Once entangled in a net, the beasts are without much further difficulty killed by means of spears. However, in some cases they will defend themselves savagely, and with desperate fury. Driven by the hunters into a corner, they were said to wrest the lances from the men's hands and to make good use of them against the adversary. Nothing was more to be dreaded than being bitten by their tremendous fangs, or getting into the grasp of their powerful arms. Just as in the woods of the west, all manner of stories were rife as to how they had carried off young girls, and how they defended their plunder, and how they constructed wonderful nests upon the topmost boughs of the trees—all these tales, of course, being but the purest fabrications.

Amongst the Niam-niam, the chimpanzee is called "Ranya," or "Manjarooma;" in the Arabic of the Soudan, where long ago its existence seems to have been known, it was included in the general name of "Ba-ahm." The life which the Ranya leads is very much like what is led by the ourang-outang in Borneo, and is spent almost entirely in the trees, the woods on the river-banks being the chief resort of the animals. Like gorillas, they are not found in herds, but either in pairs or even quite alone, and it is only the young which occasionally may be seen in groups.

For three leagues we advanced on the next day towards the S.S.W.; and this was the general direction, with little variation, by which we continued our progress to the Monbuttoo. During this short interval we crossed no less than five water-brooks, each of them bounded by its "galleries," and halted at last upon the right bank of a sixth which was named the Assika. It was close to the quarters of a chief whose name was Kollo. With the exception of a slight elevation lying to the right, the whole surface of the land between the streams was level steppe. The borders of these streams were all well-populated ; the soil was entirely under cultivation,

and appeared to be very productive. We found ourselves here amidst a tribe differing widely in habits and dialect from the Niam-niam, and which bore the semblance of being a transition population allied to the Monbutto who occupied the districts in our front.

This tribe is distinguished by the name of the A-Banga. They are said to have come across the wide desert which bounds the territories of the two nations, and quite recently to have migrated into the lands of the Niam-niam, submitting themselves voluntarily



AN A-BANGA.

to the sway of Wando. A very similar migration, resulting in the partial blending of the two people, seems to have occurred in the west, where the A-Madi,* driven out by over-population—their product of roots and plantains, which they obtained without toil, being inadequate for their support—resorted to the Gangarra hills

* The A-Madi must not be confounded with the Madi of the Mittoo, nor with the Madi south of Gondokoro. In the native dialect "a" is only a plural form: *e.g.*, "ango" means a dog; "a-ango," dogs.

of Indimma. Some chance few of the A-Madi were found intermixed with the A-Banga. Both of these could be thoroughly identified with the Monbutto by their habits and mode of life, but with regard to dialect they would seem to have been much influenced by their intermixture with the bordering population of the Niam-niam. The last home which they occupied as a clan was the populous province which the Monbutto king Munza now possesses to the north of the Welle.

The first hamlets of the A-Banga which we entered, made it at once clear that they adopted quite a different style of building their huts to what we had already seen. The conical form of the roofs, employed as it is in nearly every other region of Central Africa, here began to give place to the roof with a gable end which is universal farther south. The square huts themselves were sometimes constructed with posts and left open like sheds, and were sometimes enclosed by four walls.

The dress and war equipment of the A-Banga are the same as those of the Monbutto. The ears of both sexes are pierced so that a good thick stick can easily be run through the aperture, and for this purpose the concave portion of the ear is cut out. As a consequence of this custom both the A-Banga and the Monbutto have acquired from the Nubians the name of Gurrugurroo (derived from the word gurgur which signifies "bored") to distinguish them from the Niam-niam, which is their term to denote all cannibals. The A-Banga and Monbutto also practise circumcision, whilst the Niam-niam abstain entirely from any mutilation of the body.

In this intermediate district between the corn-lands and the lands in which roots or fruits were cultivated, the fertility was very wonderful, and the agricultural labour that was applied was very great. Besides eleusine and maize there were many patches of penicillaria: amongst earth-products I observed yams, helmia, colocasia, manioc, and the sweet potato; amongst various other leguminous plants there grew the catyang or rawan-bean (*Vigna sinensis*), the horse-bean (*Canavalia*), the voandzeia, and the *Phasæolus lunatus*; the oily fruits included earth-nuts, sesame, and hyptis; whilst there still remained room for Virginian tobacco, for the sugar-cane, for the Rokko fig-tree, and for large numbers of plantations of plantains (*Musa sapientium*).

Manioc plays an important part amongst the plants cultivated in this region, both on account of the yield it gives and the small amount of labour required in its cultivation.

Very probably, I should think, manioc has found its way to this extreme limit of its culture from Angola, by means of the intercourse of the people with the states under the dominion of Mwata Yanvo, many of whose customs appear to have been transferred to the Monbutto. But in all the northern parts of the Nile region the cultivation of manioc is still unknown, and although it has made its way into nearly all countries on the coasts within the tropics, it has not advanced towards Egypt as far as Nubia, or towards Arabia as far as Abyssinia.

Thoroughly authenticated, meanwhile, stands the fact that it was originally planted by the Portuguese upon the western coasts, and first of all in Angola. An inference may very fairly be deduced that in this way various other plants, such as maize and tobacco, were introduced into Africa, and only became naturalised at some date subsequent to the discovery of America.

On the 8th of March some ivory business on the part of Mohammed entailed the break of a day in our continued march. The respite afforded me an opportunity, which I readily embraced, of making a botanizing trip to the rich galleries of the woods on the Assika. Bribed by a few copper rings, some natives willingly came with me and were of infinite service in getting me the produce of some gigantic trees which otherwise had been quite inaccessible. Amongst these trees I may specially mention a *Treculia*, eighty feet high, known us the "pushyoh," one of the family of the *Artocarpeæ*. The great globular fruit of this was larger than my head, and seemed to realise the wish of the peasant in the fable who longed for a tree which would grow pumpkins.

Some of the trees were ten feet in diameter at the base, and had a bark without a wrinkle; not unfrequently they ran up to a height of some forty feet without throwing out a single branch, standing, as it were, like the columns of a thousand years in the piazzas of the Eternal City.

Here on the Assika I found a kind of muscat-nut (*Myristica*), and here too I gathered the first examples I had seen of the West African cam-wood (*Pterolobium sandalinoides*), which after it has been pulverised is commonly used as a favourite rouge for the skin of the Niam-niam and Monbutto men. Here, likewise, I again saw another of the notorious towering trees of Africa, the mulberry-tree of Angola, which Welwitsch has asserted is known to grow to a height of 130 feet.

In the evening Mohammed arranged a shooting-match. The

natives had never been made familiar with the effect of our firearms, regarding them only as clumsy lances, or, as they called them, great "iron sticks," and Mohammed felt it was desirable to inspire them with a proper respect for the weapons. Selecting one of the thickest of the wooden gates that, according to custom, swung in front of the huts, he set it up for a target, and the general astonishment was unbounded when it was discovered that out of fifty balls at a hundred paces, at least ten had gone clean through the wood. The Bongo bearers were then put through an exercise of feigning an attack. With wild outcry, and still wilder boundings and jumpings, they rushed upon their imaginary foe, representing, in their way, the light cavalry dashing in after the prelude of the roar of the artillery. Then, to complete the illusion of the spectacle, they seized huge clods of earth and great clumps of grass, and so returned, a picture of troops laden with spoil, to the position from which they had started. This was but a sham fight; but a few weeks later, and the scene had to be re-enacted in earnest.

The next movement of the caravan was towards the west. Twice there were some brooks to cross, and after half a league we halted by the Yuroo. We were now in a country with a large population, the whole district being called Nabanda Yuroo, or the "villages of the Yuroo," as the names of the streams in this region always give their designation to the land. The stream was shadowed in the usual way by the thickly developed growth of the gallery foliage, and took a curve in the form of a horse-shoe. Within the bend were scattered the farmsteads surrounded by large groves of plantains of which the ripe fruit had been already housed. The preparations that were set on foot towards forming a camp without making use of the existing huts either for the shelter of our baggage or for the reception of the superiors, demonstrated at once that a residence here for some days was certainly intended. The pretext alleged for the stay was to allow the Mohammedans to solemnise the anniversary of their new year. The issue, however, did not answer to the expectation.

I had here to exhibit myself to a larger number of curious eyes than usual; but I was able to obtain the measurements of the skulls of some of the A-Banga, whilst others were immortalised in my sketch-book. I had also to provide for the entertainment of the people who came to visit me, and in this respect was greatly assisted by my matches, as the marvel of my being able to produce fire at my pleasure was an inexhaustible source of interest. If ever I

handed over a lucifer and allowed them to light it themselves, their rapture surpassed all bounds; they never failed to consider that the power of producing flames resided in me, but their astonishment was greatly increased when they discovered that the faculty could be extended to themselves. Giving the white man credit for being able to procure fire or rain at his own free-will, they looked upon the performances as miracles unparalleled since the dawn of creation. For myself, I sat composedly apart, as though invested with some mysterious charm; but to say the truth, I was rather bored by this conjuring, which was a stale excitement to me, as it had now entered upon its second year of performance. Still the wonder of the Africans seemed never to cease, and they did not flag in their delight at the instantaneous flame.

The method of obtaining fire, practised alike by the natives of the Nile lands and of the adjacent country in the Welle system, consists simply in rubbing together two hard sticks at right angles to one another till a spark is emitted. The hard twigs of the *Anona senegalensis* are usually selected for the purpose. Underneath them is placed either a stone or something upon which a little pile of embers has been laid; the friction of the upper piece of wood wears a hole in the lower, and soon a spark is caught by the ashes, and is fanned into a flame with some dry grass, which is swung to and fro to cause a draught, the whole proceeding being a marvel which might well-nigh eclipse the magic of my lucifer matches.

As we were now expecting a forced campaign of two days through the wilderness, on the confines my servants had to apply their attention to the provision of adequate supplies, as whatever we required would have to be carried with us. To accomplish our plan satisfactorily we were obliged to contract a treaty offensive and defensive with the natives, and nothing would suffice for this but a mutual interchange of blood. The circumstance led me for the first time to become a witness of this barbarous, but truly African custom. The words of the pledge are emphatic: "In peace we will hold together; in war we will be a mutual defence." Our alliance, however, was not to be of very long duration.

Whilst botanizing on the Assika we had more than once been taken by surprise at arrows from some unknown hand having fallen very near us. To bend down to pluck a remarkable plant, and to take up some whistling arrow instead, is not a common experience, even in Africa. The hostile and defiant attitude of the natives was

too plainly revealed to us, when on the 11th of March the elder of my Niam-niam attendants, Gyabir, was shot in the muscle of his arm. Shrieking aloud in alarm and agony, he flung down my valuable rifle, and betook himself to flight. So dense was the thicket that I knew nothing of the disaster till my other attendants came running up, and terror-stricken began to shout, "They are coming! they are coming!" After this we hurried back to the camp. I was very deeply concerned at the supposed loss of my breech-loader, which I was accustomed to call my "cook," so serviceable had it been day after day, in bringing down guinea-fowl and francolins for my table. By good fortune, however, one of the Bongo folk had caught sight of the weapon, and soon brought it back to me safe and sound.

Several of the Bongo bearers had also returned wounded more or less by these insidious arrows; none of them were severely injured, but they came back howling in alarm. Each race seemed to have its own way of giving vent to expressions of woe. The Niam-niam outcry for pain that was sudden, was a sharp "Ow! ow!" but for a continued pain it consisted of a prolonged "Akonn! akonn!" The Bongo cry was "Aoh! aoh!"—that of the Dyoor was "Awai! awai!"

No little excitement was stirred up in our encampment when Gyabir came back wounded. I set to work to extract the arrow by breaking off the shaft, and drawing the head out on the side of the arm opposite to that at which it had entered. All the evening, however, I was too much occupied in my own pursuits to have time to devote to the consultations of the Nubians. As night was drawing on there was a fresh uproar, and the shrieks of women in alarm revealed that some Job's post of evil tidings had arrived. Three female slaves had gone to the banks of the Yuroo to fetch water for the camp, and had been discovered fatally wounded, whilst six others had disappeared and had evidently fallen into the hands of the A-Banga. A state of war then was manifestly declared; at once a fresh supply of cartridges was distributed to the soldiers, the sentinel-watches were made doubly strong, and a detachment of Farookh was told off and ordered to keep vigilant guard all night. Water for the night was indispensable, and in order to fetch it a number of women went down to the water-side, carrying torches in their hands, and under the protection of a strong escort who fired frequent shots into the bushes.

Mohammed proceeded on the following morning to divide his

force into several companies, and as soon as it was daylight sent them roaming over the environs, commissioned, if possible, to obtain some hostages that might be exchanged for the missing slaves. They found, however, that all the farmsteads had been deserted by their inhabitants, and without accomplishing their purpose they returned to the camp. All the huts and the plantain-groves were spared, but only provisionally. In the event of a thorough rupture the natives in the immediate neighbourhood had more to fear than the remoter people from the indiscriminate revenge of the Nubians, and it was hoped that their influence would avail to secure that the stolen women should be restored. In fact, several of the local chiefs did come in the middle of the day for the purpose of offering some explanation to Mohammed. Mohammed made them clearly understand that unless by nightfall the captives were delivered up, every farm and every crop in the district should stand in flames. The warning had its due effect; the restitution was promptly made, and left us free and contented to prepare for our farther progress towards the south.

Ready enough we were next morning to turn our backs upon the inhospitable quarters, and to postpone a regular warfare until the date of our return, when a conflict seemed inevitable, and we should have but a hostile reception to expect. The Bongo bearers had meanwhile taken good care to replenish their stock of provisions by laying hands on every granary they could, so as to be prepared for the transit over the desert-country which lay between us and the friendly territory of the Monbutto. We first passed over the Yuroo, and shortly afterwards we crossed two other streams which flowed into it, each full of water and with well-wooded banks. After marching on for about two hours till we had passed the last cultivated fields of the A-Banga, we arrived at a rivulet which watered an open steppe, and finding some detached and spreading fig-trees, we made a halt and took our morning meal. A very obvious depression of the land had ensued since our passage over the previous streams, the surface of the soil around being once more marked by undulations.

Onward for two leagues we went over a level steppe which was all but void of trees, occasionally passing over some sandy eminences which had all the appearance of being the remnants of gneiss rocks decomposed by the lapse of time. Here the streams, all irregular and undefined, wound their ambiguous way through marshy meadows, their banks being totally destitute of woods; some

occasional clumps of *Scitaminea* being the only plants to be seen. They had to be crossed as best we could at the spots where the herds of buffaloes had trodden down the slime into something of solidity; but the black water was frequently as high as our necks, whilst the mud beneath our feet seemed to have no bottom. Numerous large frogs and a quantity of land crabs (*Telphusa Aubryi*) were wallowing in the half-dry pools on the banks.

We had successfully accomplished the passage of two of these difficult fords, when the tokens of a gathering storm made us halt for the night upon the banks of a third before we could venture to proceed. As expeditiously as possible a tent was erected, into which as much baggage was stowed as it could contain, but it was far from being spacious enough to shelter the whole, so that for the greater part of the night the Nubians had to protect it by piling over it great ricks of grass. An entire deficiency of wood made it impossible to extemporise either huts or sheds. The meadow-stream by which we were compelled to pass this luckless night had a direction that was easterly, and therefore contrary to that of the rivers we had previously passed; it flowed to join the Kahpily, which may be described as a river of the second magnitude, which unites its dashing flood with the more northerly of the two sources of the Welle, the Keebaly and the Gadda.

Frightfully hungry after the disturbed vigil of the night, but still fasting, we proceeded at dawn to take the mud-bath which crossing the stream involved. Some Bongo who were adepts in swimming had to go in front, and convey great masses of grass and Phrynia, which they let down in the deepest parts so as to cover the sinking bottom. Going on in the same southerly direction as on the day before, we passed along the sunken ground, and after a while came to a brook which once again was shaded by luxuriant gallery-woods. The path that led through the thickets down to the main arm of the stream had been for so many feet encroached upon by the water, which rose high in consequence of its contracted channel, that the only means of progress was along the unstable trunks of fallen trees, or through puddles in which it was hard to preserve one's equilibrium. The narrow rift was cut out from the entanglement of foliage, creepers, roots, and branches, as neatly and smoothly as though it had been trimmed by a knife.

Never before had I seen such wonderful masses of lichens, of which the long grey garlands hung down in striking contrast to the deep green of the foliage above. Just like the "barba espanola" of

the forests of the Mississippi, a gigantic form of our *Usnea florida* here adorned every tree. But a decoration stranger than all was afforded by the *Platycerium*, which projected in couples, like elephants' ears, from the branches of the trees; it is one of the most characteristic of all the gallery-flora of the region.



Platycerium elephantotis, SCHWEINF.—ONE-EIGHTH OF NATURAL SIZE.

In these ancient woods, however, there is nothing that could more attract the attention of the naturalist than the wonders of the world of white ants. So assiduous are they in their industry and so inexplicable in their work, that their proceedings might well-nigh tempt a scientific student to take up his permanent abode near their haunts. They construct their nests in a shape not dissimilar to wine-casks, out of thousands and thousands of leaves, which they cement together with a slimy clay, using a strong bough for the axis of the whole, so that the entire fabric is suspended at a giddy height.

This species of white ant (*Termes arborum*) had been already observed by Smeathman in Western Africa. They partition their buildings by means of wood-shavings and bits of bark, and in the same way as the forest-ants they make several stories, and set apart nurseries and chambers for the young.

Coming next to a tract of bushwood, and then crossing two more galleries, on which was displayed all the wild beauty of the virgin forest, we arrived about midday at the stream which marks the boundary of the kingdom to which we were directing our way. The passage across this river occupied us more than half-an-hour, so intricate was the labyrinth of the uprooted trees over which it was necessary to clamber; and the way was made still more difficult by the thorny interlacings of the smilax and the obstructive jungles of the rotang.

There were spaces in the gallery-woods which were comparatively void of trees; over these was spread an abundant growth of plantains, which had a look most perfectly in harmony with the primitive wilderness around. Only on the fallen trees was it possible to effect a passage amidst the confusion of the many channels; for the network of the drooping creepers baffled every attempt to swim. At length, however, all was accomplished, and we were greeted by a view of the hospitable home of the Monbutto.

After taking some brief repose on the frontier of the new country, followed by troops of men and women, we proceeded to the residence of Nembey, a local chieftain under King Degberra, who governs the eastern half of the Monbutto, whilst the western portion belongs to Munza, a sovereign who rules with a still more powerful sway. The abode of Nembey was situated on a rivulet called the Kusumbo, which rolls on its crystal waters in a deeply-hollowed channel to join the Kahpily. Crossing the stream, we encamped upon some slightly undulated ground, encompassed by low bushes, where we erected some grass-huts that should be perfectly rain-proof. Immediately upon our arrival, Nembey, accompanied by a number of his wives, paid me a visit in my tent, and brought me a present of poultry.

Mohammed Aboo Sammat was an old friend and ally of the western king Munza, who was never otherwise than upon a footing of war with his neighbour and rival Degberra. Little therefore could Mohammed have expected in the way of welcome or hospitable reception from the king of the Eastern Monbutto, if it had not chanced that his subordinate officer had discovered the advan-

tageous ivory trade which might be opened with the strangers. This is the explanation which may be offered of the courtesy of our reception, and which accounts for the neighbourhood all round being free from any peril as far as we were concerned.

The woods on the Kussumbo I found to be an inexhaustible source of botanical treasure. Conspicuous amongst many other examples of the characteristic vegetation were the *Raphia*, the *Elais*, the bread-fruit or *Artocarpus*, and a species of Trumpet-tree (*Cecropia*) closely allied to the American genus. The oil-palm (*Elaeis*) is here at the extreme northern limit to which cultivation has ever transferred it, as it is still utterly unknown in all the districts of the Nile. Not until we crossed the Welle did we find it planted out in groves, and to judge from appearances it had only been planted even there for purposes of experiment.

Upon the day following our arrival at the residence of Nembey, I ventured out without any apprehension of harm into the semi-cultivated plantain-grounds which ran for some miles along the river-banks, passing as I went a long series of farms and fields that were under tillage, everywhere observing the women and children sitting in front of their neatly-kept huts and attending to their household duties.

The sun was just sinking on the horizon, and we were still enveloped in thickets shrouded in masses of manioc and plantains, when the report of firearms, volley after volley, coming from the camp, took us by surprise, and induced us to hurry back; such repeated discharges, we could not help suspecting, must too surely betoken some aggression on the part of the natives. We loaded our pieces, and trying to follow the direction of the sound, we started off on our return, but for a time we wandered vaguely about, not knowing how to get out of the plantations; we at length managed to reach the villages, from which the way was quite direct. Together with ourselves streamed on a crowd of the residents, who came hurrying out, equipped with their shields and lances, or with their bows and arrows. As we approached the farms we heard the beating of the signal-drums, and everywhere at the doors of the huts we saw the women and children, all eagerly bringing from the interior the necessary arms for their husbands and fathers, who were waiting impatiently without. Not knowing whether we were friends or foes, we pushed on all together along the road.

It did not take long to get through the woodlands, and then

again we were out upon the open. One glance at the camps before us revealed the mystery: the Nubians with their swarthy troops of bearers had been doubled in number by the arrival of another company of merchant-people from Khartoom, and in honour of the meeting the usual salvoes had been fired. The new-comers were the party belonging to Tuhamy, a Khartoomer, whose territories were on the lower Rohl, his head Seriba being at a spot named Ronga, where it had been established some years previously by the French adventurer, Malzac. They had come direct by the way through the districts of the Mittoo and the Madi; and at the Diamvonoo (where I had made so large a collection of the skulls of the chimpanzees) they had had such a vigorous conflict with the Niam-niam that for two days they were obliged to defend themselves behind an extemporised abattis against the hostilities of Wando, and had not escaped without some loss of life on their side. Suspecting no mischief, they had arrived at the place just at the moment that our caravan had hurried away to escape the general conflict that seemed imminent, and accordingly they had found the natives all up in arms and ready for immediate action.

At midnight a heavy rain set in, which lasted till the morning; and in the uncertainty as to what the weather would be, our departure was delayed long beyond the ordinary hour, and we were even at last obliged to start in a thick and drizzling mist. We were all anxious about keeping our powder dry; but, for my part, I must own I was more concerned for the safety of my collection, which had been gathered and preserved with so much trouble. A halt was made for an hour in one of the farmsteads on our way, and the large open sheds belonging to the local superintendent were of infinite service in providing immediate shelter for the baggage. Our route crossed four streams, all flowing to the south, after which we arrived at the Mazoroody, on the banks of which the line of farms belonging to Bongwa extended a considerable way. Bongwa was a chieftain subject to pay tribute equally to Munza and to Degberra, as his possessions were contiguous to those of both these rival kings. We crossed the river, which was approached by an extensive steppe, which terminated in a declivity that led us downwards for well-nigh 200 feet, and then halting, we proceeded to erect our camp by constructing a number of huts in the best way we could out of the masses of sodden grass.

Accompanied by his wife, Bongwa paid us a visit in camp, and allowed me the unusual honour of taking a sketch both of himself

and of his better half. The old lady took her seat upon a Monbutto bench, wearing nothing else than the singular band, like a saddle-girth, across her lap, in the general fashion of all the women of the country. Like nearly all her race, she had a skin several shades lighter than her husband's, being something of the colour of half-roasted coffee. She exhibited a singular tattooing, which appeared to consist of two distinct characters. One of these ran in lines over the shoulders and bosom, just where our own ladies wear their lace



BONGWA'S WIFE.

collars ; it was apparently made of a number of points pricked in with a needle, and forming a pattern terminating on the shoulders and breast in large crosses. The other was a pattern traced over the whole stomach, standing out in such relief that I presume it must have been done by a hot iron ; it consisted of figures set in square frames, and looked somewhat like the tracery which is sculptured on cornices and old arches. Bodkins of ivory projected from her towering chignon, which was surmounted by a plate as large as a

dollar, fastened on by a comb with five teeth manufactured out of porcupine-quills.

Since Madame Bongwa only intended to pay me a short visit, she did not appear *en grande tenue*; the picture, therefore, necessarily failed in the black figures which, for full dress, were painted on her ample flanks, and which would have given a double interest to the likeness. As a token of my recognition of the steadiness with which she sat during my artistic labours, I permitted her (and this was the greatest privilege I could afford any of the natives) to put her fingers through my hair, which to her eye was so astonishingly long and sleek.

The first hours of the following morning were spent in making purchases from the natives of a supply of yams and sweet potatoes; the day, consequently, was somewhat advanced before we could make a start. The strips of grass-land, void of trees, into which the numerous rivulets parcel out the district, were here peculiarly narrow; in the course of a single league we passed over no less than three different streams, and then came to another, the Bumba, which we had to go over twice. Whenever we came to thickets, the Raphia or wine-palm was sure to be prominent, and put every other plant into the shade.

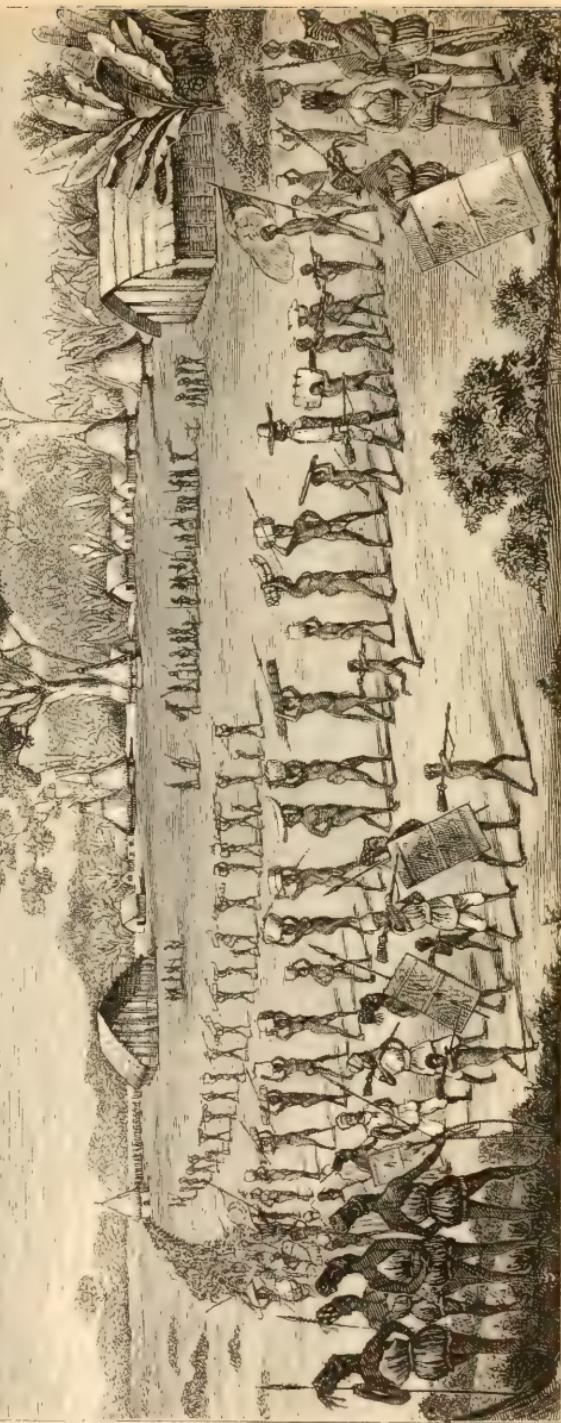
A very populous district was soon reached, known as the district of Eddeedy, who being within Munza's kingdom was tributary to Izingerria, Munza's viceroy and brother. At this spot we came again into contact with the party of Tuhamy, which had encamped upon the river Bumba. We had for so long been unaccustomed to the sight that the prospect of grazing cattle came upon us almost as a surprise. At first we were under the impression that Tuhamy's people must have brought the oxen with them; but the manifest deviation of the beasts from the Dinka type set us to inquire whence they had really come. They were of a thicker and shorter build than those we had seen, having a different formation of the skull and very prominent humps. We were informed that they had been a present from King Munza to Eddeedy. Munza himself had some years previously received a large herd of them from the powerful ruler of some people in the south-east, with whom he had concluded an amicable alliance. The tribe who were thus referred to were called by my interpreter the Maogoo, and I imagined that through this word I could get some perception of what Sir Samuel Baker meant when he spoke of the land beyond Lake Mwootan as Ulegga, and its inhabitants as the Malegga.

Taking now a more southerly direction, the road led us over three different streams, which flowed to the west to join the Bumba. On the fourth stream from the Bumba was situated the mbanga of Izingerria. It was somewhat late in the afternoon before we made our imposing entrance, and then we found both sides of the roadway lined with crowds of astonished folks who had come to gaze at our troop. The officials appeared in full state, their hats adorned with waving plumes: they had come attended by their shield-bearers, and had ordered their indispensable benches to be brought with them, that they might receive us at their ease and observe with as much convenience as possible the unusual spectacle we presented.

We took up our encampment on the steppe just beyond the stream which divided us from the circle of huts, which were arranged around an open area, and allotted to the wives and soldiers of the prince. The plots that had been cleared near the little river were for the most part planted with sugar-canies. The canes grew to the size of a man's arm, but I think they were generally very woody and less soft in their texture than those which grew in Egypt. Except for chewing, the natives seem to have no object in growing them, and apparently have no notion of expressing or boiling the sap, for otherwise they would not have been so surprised as they were at the bits of loaf-sugar which we gave them by way of putting their experience to the test. The plants thrive very well in the plantations, which are amply irrigated by the numerous ducts of the various streams, and, indeed, they grow in a half-wild condition. Had the natives only a better disposition for industry and a freer scope for traffic, there is no estimating what might be the value of the production which is here so bountifully bestowed.

At length the attainment of my cherished hopes seemed close at hand. The prospect was held out that on the 19th of March we might expect to arrive at the Welle. The way to the river led us due south, and we went onwards through almost uninterrupted groves of plantains, from which the huts, constructed of bark and rotang very skilfully sewn together, ever and again peeped out. A march of scarcely two leagues brought us to the bank of the noble river, which rolled its deep dark flood majestically to the west. For me it was a thrilling moment that can never fade from my memory. My sensations must have been like Mungo Park's on the 20th of July, 1796, when for the first time he planted his foot upon the shore of the mysterious Niger, and answered once

ENTRY TO IZINGERRIA'S MBANGA.



for all the great geographical question of his day—as to whether its waters rolled to the east or to the west.

Here, then, I was upon the very bank of the river, attesting the western flow of the water, about which the contradictions and inconsistencies of the Nubians had kept up my unflagging interest ever since we set out from Khartoom. Whoever has any acquaintance with the indistinctness that ever attaches to the statements of those who would attempt to describe in Arabic the up-current or the down-current of a river will readily comprehend the eagerness with which I yearned to catch the first glimpse of the waters of which the rippling sound, as they washed their stony banks, came through the bushes to my strained and listening ear. If the river should flow to the east, why then it solved the problem, hitherto inexplicable, of the fulness of the water in Lake Mwootan; but if, as was far more likely, it should go towards the west, then beyond a doubt it was independent altogether of the Nile system. A moment more, and the question was set at rest. Westerly was the direction of the stream, which consequently did not belong to the Nile at all; it was in all likelihood not less than 210 miles distant from the most western coast of Lake Mwootan, and at the numerous rapids which are formed in its upper course it rises almost to the level of the lake, even if it does not attain a still higher altitude.*

Very similar as it looked in some respects to the Blue Nile at Khartoom, the Welle had here a breadth of 800 feet, and at this period of the year, when its waters were at their lowest, it had a depth varying from twelve to fifteen feet. The banks, like the “guesf” of the Nile, rose about twenty feet above the level of the stream, and appeared to consist almost exclusively of alluvial clay and some layers of blended sand and mica; but as far as I could investigate the exposed face of the river-wall, I could see neither pebbles nor drift, and only occasionally were the scanty remains of shells to be detected.

Here, as well as on the upper part of the main-stream, named the Keebaly, which we subsequently crossed, no inundation of the country seems ever to occur, although the land sank with rather a sudden fall for 100 feet down to the wood-enclosed bank of the river.

There was nothing remarkable about the rate at which the water flowed: on the northern bank it passed at about fifty-five or sixty feet a minute; so that the volume of water that rolled by would be about 10,000 cubic feet a second; but supposing the rate of the

* The measurements are given in the sketch-map.

stream to be invariable, this volume would be nearly doubled at the season when the river was at its fullest height. The Welle is formed about twelve miles above this spot by the union of the Gadda and the Keebaly. About three weeks later (on the 13th of April) the Gadda was about 155 feet wide and two to three feet deep, whilst the Keebaly, which is the main-stream, was 325 wide and at least twelve feet deep. Of the two streams just above the junction, the rate of flow was fifty-seven feet and seventy-five feet respectively. Fourteen miles above its point of confluence with the Gadda, the Keebaly forms a series of rapids flowing over innumerable crags of gneiss, making a labyrinth of little islands which are known as Kissangah, and which part the stream into many minor channels that after they are re-united reach across in a distance of 1000 to 1200 feet from shore to shore.

I made all the inquiries I possibly could about the condition and fluctuations of the river from the interpreters who were attached to the expedition, and ascertained that the water was actually at this date at its lowest level. The first indication that I had of any rise or increase in the stream was when I crossed it again a little higher up, towards the east in the middle of April; and to judge from what was pointed out to me then on the river-banks, I should conjecture that the period of the highest water would be about two months later.

The Welle had all the tokens of being a mountain-stream of which the source was at no remote distance, and to a certainty was not in a latitude much to the south of that of the spot where we were crossing. The colour of the flood at this time of the year corresponded very remarkably with the cloudy waters of the Bahr-el-Azrek, and it is probable that when it is at its height it has that look of coffee-and-milk which the river presents at Khartoom. Moreover, there is an additional proof that the river has its origin in some mountain region at no great distance, which is furnished by the fact of so many considerable streams (such as the Keebaly, the Gadda, the Kahpily, the Nomayo, and the Nalobey) all having their channels uniting in what is comparatively a very limited area. The result of my varied inquiries seemed to demonstrate most satisfactorily that to the south-west of Munza's residence the land takes a decided rise; and the existence of certain detached groups of hills, which according to the declarations of the natives are at no very great distance, serves to confirm my belief as to the orographical character of the country. The hills and isolated mountains

to which I refer would be, I imagine, none other than the western fringe of the "Blue Mountains," which Baker observed from the farther side of Lake Mwootan (the Albert Nyanza), and of which (as he saw them on the north-western confines of the lake) he reckoned that the height must be 8000 feet.*

From this spot also the position of the abodes of the tribe of the Maogoo was pointed out to me, and it lay between the S.E. and E.S.E. It was to me a very remarkable thing how accurately the natives of Africa, by the indication of the finger, would point to any particular locality ; they were also equally skilful in telling the hour of the day by the height of the sun, and I rarely detected an error of much more than a quarter of an hour in their representations.

Taking into calculation the geographical configuration of this part of Africa, and relying not so much upon the representations of previous European travellers as upon the information obtained along the wide tract that extends from Lake Tsad to Kordofan and south of that line, it may be asserted that the Welle belongs to the system of the Shary. That the Welle has any connection with the Gazelle, and so ultimately with the Nile, is contradicted not merely by the general belief, but by the authenticated statements of the inhabitants who dwell upon its borders ; and more than this, it is totally inconsistent with the fact that the Welle is a stream vastly greater than the Gazelle in the volume of its waters.

Perhaps I may seem to lay greater stress upon the information which I gained by my inquiries, than a rigorous critic, who knows what an ambiguous country I was traversing, may be inclined to think is fair. But let me invite his attention to the following statement. Although the entire eastern portion of the Niam-niam country from Mofio to Kanna has been repeatedly visited by companies from Khartoom, and I have been repeatedly brought into contact with those who have taken part in the expeditions, I have only come across one single individual who has represented that there is connection anywhere between the Welle and the Gazelle ; and in addition to this, the Monbuttoo and the Niam-niam, with an agreement that is undeviating, all represent that the Welle holds on its course to the N.E. as far as they could follow it for days and days together, till it widens so vastly that the trees on its banks are not visible, and that at last there is nothing but water

* According to later travellers, such as Gessi, Piaggia, and Count Armfeld, who have visited Lake Mwootan, they are only unimportant eminences.

and sky. This representation would imply that the river issues in some inland lake. They have, moreover, their tales to tell of the inhabitants of the country on the lower part of the river, as to how they dress in white, and, like the Nubians, kneel upon the ground and say their prayers. Clearly, therefore, these residents are Mohammedans, and the direction and the distance of their abode would seem to corroborate an impression that they must be the inhabitants of some southern parts of Baghirmy.

As I have spoken of the Welle in comparison with the Gazelle, I may now be permitted to bring it into contrast with the Shary, so far at least as the lower course of this river has been explored. According to the testimony of Major Denham, who made his observations on the 24th of June, 1824, the width of the Shary at its mouth was about half a mile, while its stream had a velocity of something under three English miles an hour. This would indicate a stream three times as strong as that of the Welle, and if the average depth of the waters as they flow into Lake Tsad be reckoned at ten feet it would give a volume of 150,000 cubic feet a second, whereas at the very highest reckoning the volume of the Welle is not above 41,000 cubic feet.

I should, however, be inclined to think that the velocity of the stream in its upper course, as given by both Denham and Barth, must be considerably above the mark.

Barth, and subsequently, Nachtigal, saw the western arm of the Shary, which is the main-stream during the dry season, and, according to the accounts of both travellers, the breadth and depth of the river within 200 miles of its lower course were very little greater than those of the Welle in Monbuttoo-land; therefore it must be the superior height of the banks and the considerable rise of the water, which is equal to that of the Nile in Egypt, that cause the river to be increased fourfold from July to September.

According to Barth, the Shary, as early as the month of March, shows an increase in the mass of its waters; this would appear to indicate that, as well as by the Welle, it is augmented by some other streams coming from more southern latitudes. It is a positive fact that there are no other rivers of the least account that could possibly flow into it from the arid steppe-districts on the north. If then the Welle flows neither into the Shary nor yet into the Gazelle, it could only be a tributary to the ample waters of the Benwe, which Barth found at Yola on the 18th of July, 1851, to be 1200 feet in width, with an average depth of eleven feet, and a

periodic difference of 50 feet between its highest and lowest level. But then there would still remain the question as to what, in that case, must be the origin of the Shary, and whence it comes. There would seem to be no room left for the stream at all.*

The transport of the caravan across the great river was by no means an easy matter ; by the aid, however, of the ferrymen whom Munza had provided, it was accomplished so vigorously that in the course of three hours our last man had been carried over. The passage was effected by large canoes which were hewn out of a single trunk of a tree, and which, alike in shape and solidity, were superior to any we had hitherto seen. Some of them were not less than thirty feet long and four feet broad, and sufficiently spacious to convey both horses and bullocks. So ample are their dimensions that there is no risk of their being upset, nor did they lurch in the least degree as we got into them. They were made with both ends running horizontally into a beak, and the border lines were ornamented with carved figures. As the current was not very strong, it was found sufficient to have two boatmen, who squatted down at each extremity of the canoe ; their paddles were about five feet long, and tapered down towards the end in the shape of a narrow shovel, and to say the truth, the boatmen used them very much in shovel-fashion.

Our encampment was formed about half-a-league to the south of the river ; it was encircled by the dwellings of the Monbuttoo, who had spread themselves over the declivity of a steep woody

* Whilst this new edition of my travels was in preparation for the press, the interest of the geographical world was engaged in the latest discoveries made by Stanley. That traveller has ascertained that, before entering the Atlantic as the Congo, the Lualaba, after flowing generally northwards, as far as lat 2° N., turns north-west, then west, and finally south-west, and moreover, about one degree north of the equator, it receives on the right hand side, a large affluent called the Aruwimi. This Aruwimi has by several geographers been maintained to be identical with my Welle ; but in this view I cannot at present acquiesce. If Stanley actually reached lat. 2° N., there still remains a distance of no less than 200 miles between the mouth of the affluent of the Congo-Lualaba, and the spots visited by myself and Miani on the Welle, a space quite sufficient to contain a stream independent of either system. The W. and N.N.W. direction of the Welle would be a strong argument against its identification with the affluent, as would also the accounts of the natives, who unanimously assert that the Welle in its lower course passes through districts inhabited by Mohammedans.

ravine. Ambassadors deputed by King Munza came to bring me his official recognition of my arrival, and were charged at the same time to render to him what information they could about the doings and intentions of the wonderful stranger. As the messengers sent by the king were sufficiently versed in the Zandey dialect to hold conversation in it, I was enabled to make them understand the object of my visit to their country, and to all appearances they were thoroughly satisfied with my explanation.

A fresh world of novelty seemed to be awaiting us in this remote region, the very kernel of the continent, equally distant from the Indian Ocean and from the Atlantic. Everything was new. The bright and clear complexion of the natives, their singular garb, their artistic furniture, the convenience of their orderly houses, and finally, the savage etiquette of the pompous court, all struck me with fresh surprise and ever renewed the feeling of astonishment. There was, moreover, an exuberance of strange and unexpected vegetation; whilst plantations, sugar-canies, and oil-palms were everywhere to be seen in plentiful luxuriance. Truly, I now found myself in the heart of Africa, realising to the letter the fascinating dreams of my early youth.

Nothing could be more charming than that last day's march which brought us to the limit of our wanderings. The twelve miles which led to Munza's palace were miles enriched by such beauty as might be worthy of Paradise. They left an impression upon my memory which can never fade. The plantain-groves harmonised so perfectly with the clustering oil-palms that nothing could surpass the perfection of the scene; whilst the ferns that adorned the countless stems in the background of the landscape enhanced the charms of the tropical groves. A fresh and invigorating atmosphere contributed to the enjoyment of it all, refreshing water and grateful shade being never far away. In front of the native dwellings towered the splendid figs, of which the spreading crowns defied the passage of the burning sun. Anon, we passed amidst jungles of Raphia, alongside brooks crammed full of reeds, or through galleries where the Pandanus thrived, the road taking us uphill and downhill in alternate undulation. No less than twelve of these brooklets did we pass on our way, some lying in depressions of one hundred feet, and some sunk as much as two hundred feet below the summits of their bounding walls of verdant vegetation, and there were two upheaved and rounded hills of gneiss, rising to an altitude of some 300 feet, along the flanks of which our path wound. On either hand there

was an almost unbroken series of the idyllic homes of the people, who hurried to their gates, and offered us the choicest products of their happy clime.

Beside the streamlet which was last but one of all we passed, we made our final halt in the shade in a large assembly-ground that we might take our repast of plantains and baked manioc. The crowds of bearers made their camp around the stem of a colossal *Cordia abyssinica* which stood upon the open space in front of the abode of the local chief. Von Beuermann has mentioned that he observed this tree in Kanem rendering the same service as the lindens of the German villages, and forming a cool and shady resort to which the residents might betake themselves for recreation. These trees, with their goodly coronets of spreading foliage, are the survivors from generations that are gone, and form a comely ornament in well-nigh all the villages of the Monbuttoe.

And then, at last, conspicuous amongst the massy depths of green, we espied the palace of the king. We had reached a broad valley, circled by plantations, and shadowed by some gigantic trees which had survived the decay of the ancient wilderness; through the lowest part meandered a transparent brook. We did not descend into the hollow, but halting on the hither side we chose a station clear of trees, and proceeded without delay to pitch our camp. In front we enjoyed a view of a sloping area, void of grass, enlivened with an endless multiplicity of huts, of which the roofs of some were like ordinary sheds, and those of others of a conical form. And there, surmounting all, with extensive courts, broad and imposing, unlike anything we had seen since we left the edifices of Cairo, upreared itself the spacious pile of King Munza's dwelling.

The order for the halt was no sooner given than the bearers set about their wonted work, and labouring with their knives and hatchets soon procured from the jungles by the brook the supply of material sufficient for our architectural needs. Rapidly as ever our encampment was reared: hardly an hour elapsed before our place of sojourn was in order, with a gorgeous landscape opening in its front, and this time in view of the royal abode of an African monarch. My own tent, which began to exhibit only too plainly the tokens of being somewhat weather-beaten by repeated exposure, was located in the very midst of the lines of our grass-huts: not now was it erected, as often as it had been, upon the bare rock of a desolate wilderness, but in the centre of a scene of surpassing beauty; for the first time I had it decorated with my flag, which waved proudly

above it in honour of our arrival at the court of so distinguished and powerful a prince.

The natives lost no time in crowding in and endeavouring to obtain an interview. But it suited my inclination to withdraw myself for a time. I remained in the retirement of my tent simply because I was weary of these interviews, which always necessitated my permitting either my head to be handled, in order to convince them that the long straight hair was really my own, or my bosom (like Wallenstein's when he fronted his murderers) to be bared that they might admire its whiteness. I was thus induced to remain under shelter, and meanwhile the Monbutto magnates waited patiently or impatiently without; they had brought their benches, which they placed close to my quarters, but I continued obstinate in my determination to be undisturbed, resolved to reserve all my strength and energy for the following day, when I should have to exhibit the marvel of my existence before King Munza himself.

CHAPTER VIII.

THE NIAM-NIAM OR ZANDEY: Signification of name—General characteristics—Distinct nationality—Complexion—Tattooing—Hair-dressing—Ornaments—Weapons—Agriculture—Good beer—Cultivated plants—Dogs—Cannibalism—Analogy with the Fans—Architecture—Authority of princes—Their households—Modes of warfare—Signals—Bait for wild-fowl—Handicraft—Forms of greeting—Position of the women—An African pastime — Musical taste — Professional musicians—Language—Auguries and ordeals—Mourning for the dead—Disposal of the dead—Genealogical table of Niam-niam princes.

LONG before Mehemet Ali, by despatching his expeditions up the White Nile, had made any important advance into the interior of the unknown continent—before even a single sailing-vessel had ever penetrated the grass-barriers of the Gazelle—at a time when European travellers had never ventured to pass the frontiers of that portion of Central Africa which is subject to Islamism—whilst the heathen negro countries of the Soudan were only beginning to dawn like remote nebulae on the undefined horizon of our geographical knowledge—tradition had already been circulated about the existence of a people with whose name the Mohammedans of the Soudan were accustomed to associate all the savagery which could be conjured up by a fertile imagination. The comparison might be suggested that just as at the present day, in civilised Europe, questions concerning the descent of men from apes form a subject of ordinary conversation, so at that time in the Soudan did the Niam-niam serve as common ground for all ideas that pertained to the origin of man.

To lift in a measure the veil which had enveloped the Niam-niam with this legendary and magic mystery fell to the lot of my predecessor Piaggia, that straightforward and intrepid Italian who, animated by the desire of opening up some reliable insight into their real habits, had resided alone for a whole year amongst them.*

* In the ‘*Bulletino della Soc. Geogr. Italiana*,’ 1868, pp. 91–168, the
VOL. I.

I reckon it my own good fortune that I was so soon to follow him into the very midst of this cannibal population.

The name Niam-niam * is borrowed from the dialect of the Dinka, and means "eaters," or rather "great eaters," manifestly betokening a reference to the cannibal propensities of the people. This designation has been so universally incorporated into the Arabic of the Soudan, that it seems unadvisable to substitute for it the word "Zandey," the name by which the people are known amongst themselves. Since among the Mohammedans of the Soudan the term Niam-niam (plur. Niamah-niam) is principally associated with the idea of cannibalism, the same designation is sometimes applied by them to other nations who have nothing in common with the true Niam-niam, or "Zandey," except the one characteristic of a predilection for eating human flesh. The neighbouring nations have a variety of appellations to denote them. The Bongo on the north sometimes call them Mundo, and sometimes Manyanya; in the country behind these are the Dyoor, who uniformly speak of them as the O-Madyaka; the tribe of the Mittoo on the east give them the name of the Makkarakka, or Kakkarakka; the Golo style them Kunda; whilst among the Monbutto they are known as Babungera.

The greater part of the Niam-niam country lies between the fourth and sixth parallels of north latitude, and a line drawn across the centre from east to west would correspond with the watershed between the basins of the Nile and the Tsad. My own travels were confined exclusively to the eastern portion of the country which, as far as I could understand, is bounded in that direction by the upper course of the Tondy; but in that district alone I became acquainted with as many as thirty-five independent chieftains who rule over the portion of Niam-niam territory that is traversed by the trading companies from Khartoom.

Of the extent of the country towards the west I was unable to gain any definite information; but as far as the land is known to the Nubians it would appear to cover between five and six degrees of longitude, and must embrace an area of about 48,000 square miles.

Marquis O. Antinori has, from the verbal communications of the traveller himself, most conscientiously collected Piaggia's experiences and observations in the country of the Niam-niam during his residence.

* It should be mentioned that the word Niam-niam is a dissyllable, and has the Italian pronunciation of Gnam-gnam.

The population of the known regions is at least two millions, an estimate based upon the number of armed men at the disposal of the chieftains through whose territory I travelled, and upon the corresponding reports of the fighting force in the western districts.

No traveller could possibly find himself for the first time surrounded by a group of true Niam-niam without being almost forced to confess that all he had hitherto witnessed amongst the various races of Africa was comparatively tame and uninteresting, so remarkable is the aspect of this savage people. No one, after observing the promiscuous intermingling of races which (in singular contrast to the uniformity of the soil) prevails throughout the entire district of the Gazelle, could fail to be struck by the pronounced characteristics of the Niam-niam, which make them capable of being identified at the first glance amidst the whole series of African races.

I propose in the present chapter to give a brief summary of the characteristics of this Niam-niam people, and shall hope so to explain the general features of their physiological and osteological aspect, and so to describe the details of their costume and ornaments, that I may not fail in my desire to convey a tolerably correct impression of this most striking race.

The round broad heads of the Niam-niam, of which the proportions may be ranked among the lowest rank of brachycephaly, are covered with the thick frizzly hair of what are termed the true negroes; this is of an extraordinary length, and arranged in long plaits and tufts flowing over the shoulders and sometimes falling as low as the waist. The eyes, almond-shaped and somewhat sloping, are shaded with thick, sharply-defined brows, and are of remarkable size and fulness; the wide space between them testifies to the unusual width of the skull, and contributes a mingled expression of animal ferocity, warlike resolution, and ingenuous candour. A flat square nose, a mouth of about the same width as the nose, with very thick lips, a round chin, and full plump cheeks, complete the countenance, which may be described as circular in its general contour.

The body of the Niam-niam is ordinarily inclined to be fat, but it does not commonly exhibit much muscular strength. The average height does not exceed that of Europeans, a stature of 5 feet 10 $\frac{1}{2}$ inches being the tallest that I measured. The upper part of the figure is long in proportion to the legs, and this peculiarity gives a strange character to their movements, although it does not impede their agility in their war-dances.

In colour the skin is in no way remarkable. Like that of the Bongo, it may be compared to the dull hue of a cake of chocolate. Among the women, detached instances may be found of various shades of a copper-coloured complexion, but the ground tint is always the same—an earthy red, in contrast to the bronze tint of the true Ethiopian (Kushitic) races of Nubia. As marks of nationality, all the "Zandey" score themselves with three or four tattooed squares filled up with dots; they place these indiscriminately upon the forehead, the temples, or the cheeks. They have, moreover, a figure like the letter X under the breasts; and in some exceptional cases they tattoo the bosom and upper parts of the arm with a variety of patterns, either stripes, or dotted lines, or zigzags.

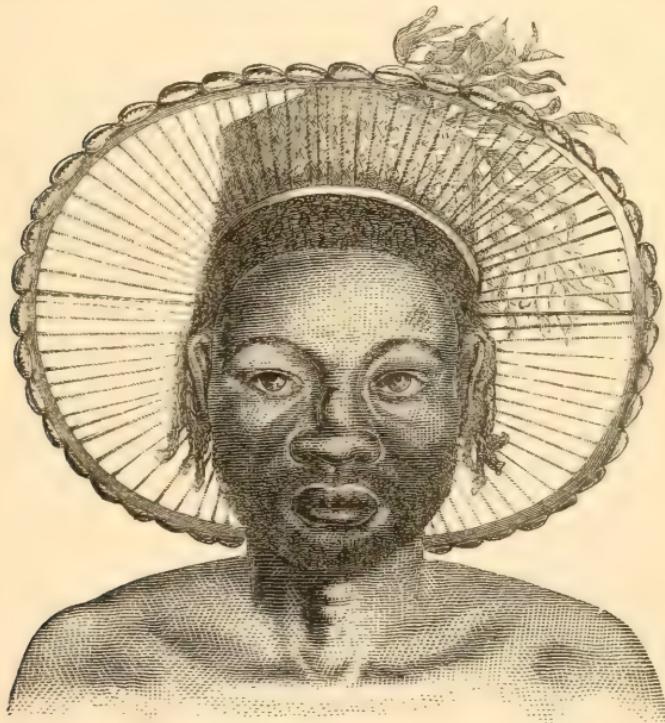
On festive occasions the body is smeared all over with pulverized red cam-wood, and marbled with a pattern in black gardenia-juice.

No mutilation of the body is practised by either sex, but this remark must be subject to the one exception that they fall in with the custom, common to the whole of Central Africa, of filing the incisor teeth to a point, for the purpose of effectually gripping the arm of an adversary either in wrestling or in single combat.

On rare occasions, a piece of material made from the bark of the *Urostigma* is worn as clothing; but, as a general rule, the entire costume is composed of skins, which are fastened to a girdle and form a picturesque drapery about the loins. The finest and most variegated skins are chosen for this purpose, those of the genet and colobus being held in the highest estimation; the long black tail of the quereza monkey (*Colobus*) is also fastened to the dress. Only chieftains and members of the royal blood have the privilege of covering the head with a skin, that of the serval being most generally designated for this honour. In crossing the dewy steppes in the early morning during the rainy season, the men are accustomed to wear a large antelope-hide, which is fastened round the neck, and, falling to the knees, effectually protects the body from the cold moisture of the long grass. The sons of chieftains wear their dress looped up on one side, so that one leg is left entirely bare.

The men take an amount of trouble in arranging their hair which is almost incredible, whilst nothing could be more simple and unpretending than the ordinary head-gear of the women. It would, indeed, be a matter of some difficulty to discover any kind of plait, tuft, or top-knot which has not already been tried by the Niam-niam men. The hair is usually parted right down the middle;

towards the forehead it branches off, so as to leave a triangle ; from the fork which is thus formed a tuft is raised, and carried back to be fastened behind ; on either side of this tuft the hair is arranged in rolls, like the ridges and crevices of a melon. Over the temples separate rolls are gathered up into knots, from which hang more tufts, twisted like cord, that fall in bunches all round the neck, three or four of the longest tresses being allowed to go free over the breast and shoulders. The women dress their hair in a simpler but somewhat similar manner, omitting the long plaits and tufts. The most peculiar head-gear that I saw was upon some men who came from the territory of Keefa, and of this a representation is given in the accompanying portrait. These people reminded me very much



REMARKABLE HEAD-DRESS OF THE NIAM-NIAM.

of the description given by Livingstone of the Balonda, that people of Londa, on the Zambesi, which he came across during his first journey. The head is encircled by a series of rays like the glory

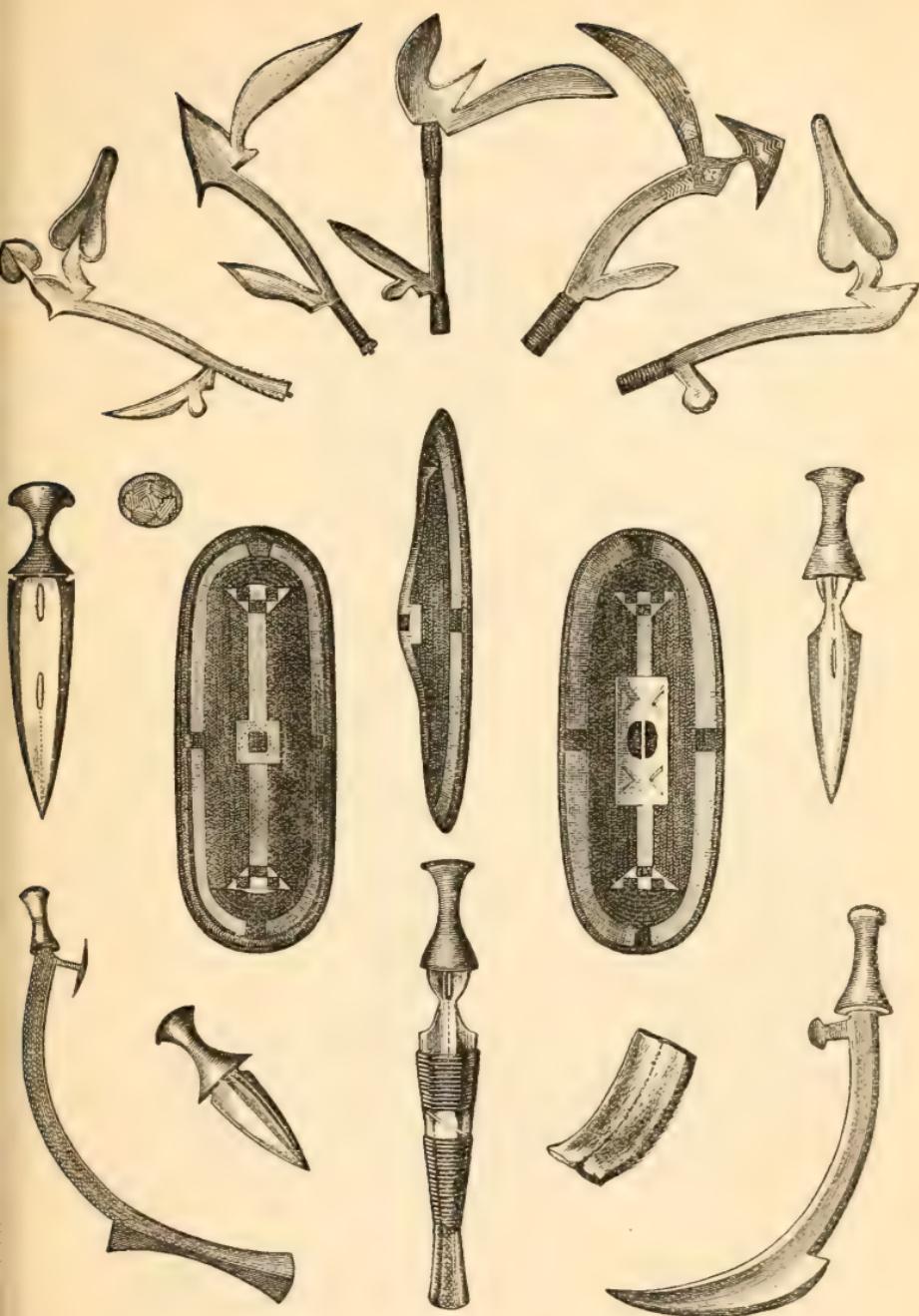
which adorns the likeness of a saint. This circle is composed entirely of the man's own hair, single tresses being taken from all parts of the head and stretched tightly over a hoop, which is ornamented with cowries. The hoop is fastened to the lower rim of a straw hat by means of four wires, which are drawn out before the men lie down to sleep, when the whole arrangement admits of being folded back. This elaborate coiffure demands great attention, and much time must be devoted to it every day. It is only the men who wear any covering at all upon the head: they use a cylindrical hat without any brim, square at the top and always ornamented with a waving plume of feathers: the hat is fastened on by large hair-pins, made either of iron, copper, or ivory, and tipped with crescents, tridents, knobs, and various other devices.

A very favourite decoration is formed out of the incisor teeth of a dog strung together under the hair, and hanging along the forehead like a fringe. The teeth of different rodentia likewise are arranged as ornaments that resemble strings of coral. Another ornament, far from uncommon, is cut out of ivory in imitation of lions' teeth, and arranged in a radial fashion all over the breast, the effect of the white substance in contrast with the dark skin being very striking. Altogether the decoration may be considered as imposing as the pointed collar of the days of chivalry, and is quite in character with a warlike nation who find their pastime in hunting. Glass beads are held in far less estimation by the Niam-niam than by the neighbouring races.

The principal weapons of the Niam-niam are their lances and their trumbashes. The word "trumbash," which has been incorporated into the Arabic of the Soudan, is the term employed in Sennaar to denote generally all the varieties of missiles that are used by the negro races; it should, however, properly be applied solely to that sharp flat projectile of wood, a kind of boomerang, which is used for killing birds or hares, or any small game: when the weapon is made of iron, it is called "kulbeda." The trumbash of the Niam-niam* consists ordinarily of several limbs of iron, with pointed prongs and sharp edges. Iron missiles very similar in their shape are found among the tribes of the Tsad basin; and a weapon constructed on the same principle, the "changer manger," is in use among the Marghy and the Musgoo.

The trumbashes are always attached to the inside of the shields,

* The accompanying illustration gives examples of five different forms of trumbash.



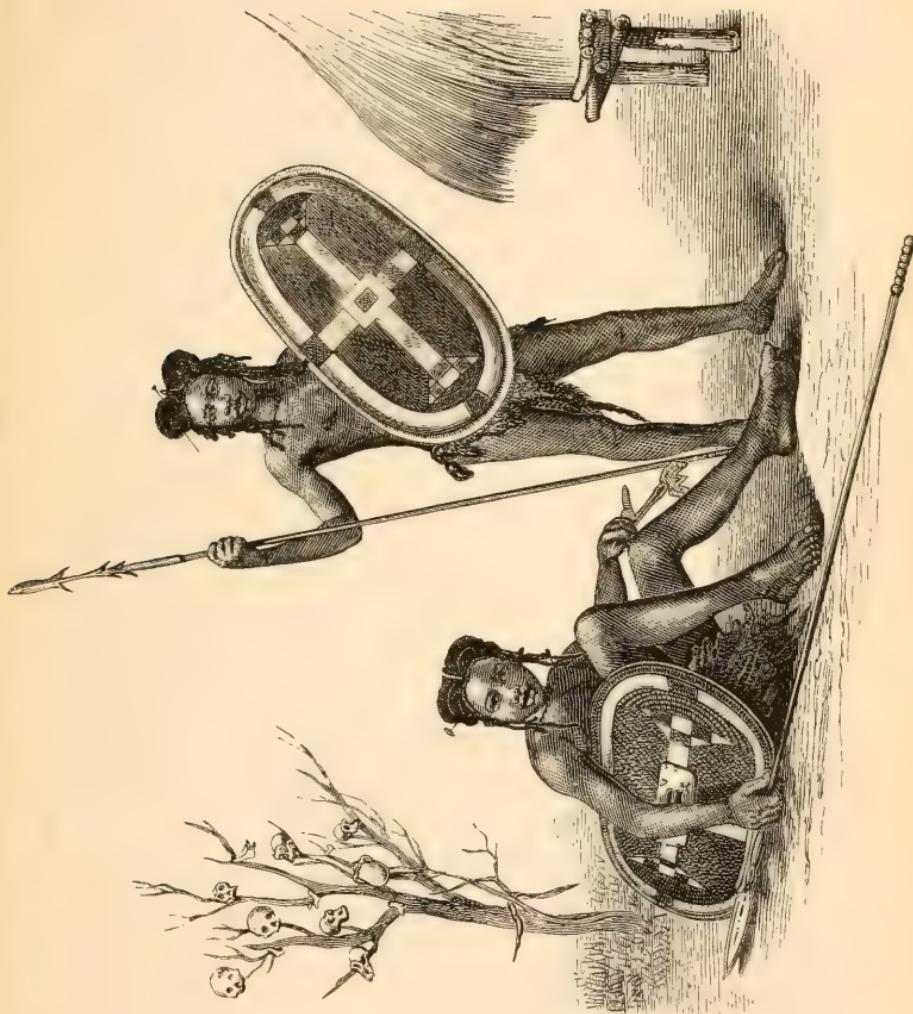
KNIVES, SCIMITARS, TRUMBASHES, AND SHIELD OF THE NIAM-NIAM.
(The shield is represented in three different positions.)

which are woven from the Spanish reed, and are of a long oval form, covering two-thirds of the body ; they are ornamented with black and white crosses or other devices, and are so light that they do not in the least impede the combatants in their wild leaps. An expert



NIAM-NIAM WARRIOR.

Niam-niam, by jumping up for a moment, can protect his feet from the flying missiles of his adversary. Bows and arrows, which, as handled by the Pongo, give them a certain advantage, are not in



common use among the Niam-niam, who possess a peculiar weapon of attack in their singular knives, that have blades like sickles. The Monbutto, who are far more skilful smiths than the Niam-niam, supply them with most of these weapons, receiving in return a heavy kind of lance, that is adapted for the elephant and buffalo chase.

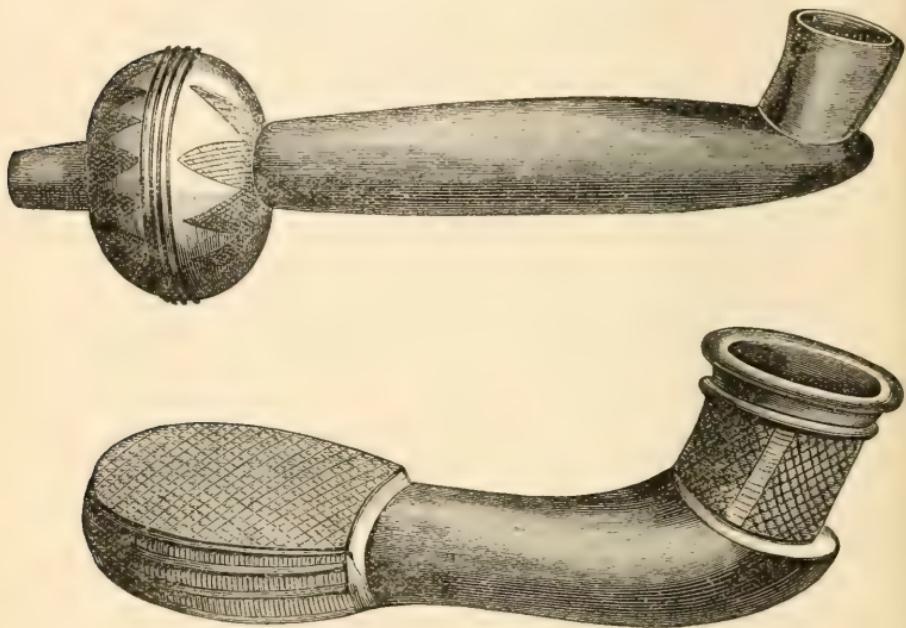
In describing this people, it is hard to determine how far they ought to be designated as a nation of hunters, or one of agriculturists, the two occupations apparently being equally distributed between the two sexes. The men most studiously devote themselves to their hunting, and leave the culture of the soil to be carried on exclusively by the women. Occasionally, indeed, the men may bring home a supply of fruits, tubers and funguses from their excursions through the forests, but practically they do nothing for the support of their families beyond providing them with game. The agriculture of the Niam-niam, in contrast with that of the Bongo, involves but a small outlay of labour. The more limited area of the arable land, the larger number of inhabitants that are settled on every square mile, the greater productiveness of the soil, of which in some districts the exuberance is unsurpassed—all combine to make the cultivation of the country supremely easy. The entire land is pre-eminently rich in many spontaneous products, animal and vegetable alike, that conduce to the direct maintenance of human life.

The *Eleusine coracuna* (the “raggi” of the East Indies), a cereal which I had found only scantily propagated among the people that I have hitherto described, is here the staple of cultivation; sorghum in most districts is quite unknown, and maize is grown only in inconsiderable quantities.

Here, as in Abyssinia (where its product is called *tocusso*), eleusine affords a material for a very palatable beer.* In the Mohammedan Soudan the inhabitants, from cold fermented sorghum-dough, extract the well-known *merissa*; and by first warming the dough, and exercising more care and patience in the process, is made the *bilbil* of the *Takareer*; neither of these beverages, however, to our palate would be much superior to sour pap: even the *booza* of Egypt, made though it is from wheat, is hardly in any respect superior in quality. But the drink which by the Niam-niam is prepared from their eleusine is really capable, from the skill with which it is manipulated, of laying a fair claim to be known as *beer*.

* The brewing of beer from malted eleusine is practised in many of the heathen negro countries; and in South Africa the *Makalaka*, a branch of the great Bantoo race, are said to devote a considerable attention to it.

It is quite bright, and of a reddish-pale brown colour; it is regularly brewed from the malted grain, without the addition of any extraneous ingredient, and has a pleasant, bitter flavour, derived from the dark husks, which, if they were mixed in their natural condition with the dough, would impart a twang that would be exceedingly unpalatable. How large is the proportion of beer consumed by the Niam-niam may be estimated by simply observing the ordinary way in which they store their corn. As a regular rule, there are three granaries allotted to each dwelling, of which



CLAY PIPES OF THE NIAM-NIAM.

two are made to suffice for the supply which is to contribute the meal necessary for the household; the other is entirely devoted to the grain that has been malted.

Manioc, sweet potatoes, yams, and colocasiae are cultivated with little trouble, and rarely fail to yield excellent crops. Plantains are only occasionally seen in the east, and from the districts in which I travelled, I should judge that they are not a main support of life at any latitude higher than 4° N. Sugar-canies and oil-palms entirely failed in this part of the land, but I was informed that

they were as plentiful in Keefa's territory as they are among the Monbuttoo.

All the Niam-niam are tobacco-smokers. Their name for the *Nicotiana tabacum* is "gundey," and they are the only people of the Bahr-el-Ghazal district who have a special designation for the plant. The other sort, *N. rustica*, is utterly unknown throughout



NIAM-NIAM DOG.

the country. The people smoke from clay pipes of peculiar form, consisting of elongated bowls without stems. Like other negro races that remain untainted by Islamism, they abstain from ever chewing the tobacco.

In broad terms, it may be stated that no cattle at all exist in the land; the only domestic animals are poultry and dogs. The

dogs belong to a small breed resembling the wolf-dog, but with short sleek hair; they have ears that are large and always erect, and a short curly tail like that of a young pig. They are usually of a bright yellowish tan colour, and very often have a white stripe upon the neck; their lanky muzzle projects somewhat abruptly from an arched forehead; their legs are short and straight, thus demonstrating that the animals have nothing in common with the terrier breed depicted upon the walls of Egyptian temples, and of which the African origin has never been proved. Like dogs generally in the Nile district, they are deficient in the dew-claws of the hind feet. They are made to wear little wooden bells round their necks, so that they should not be lost in the long steppe-grass. After the pattern of their masters, they are inclined to be corpulent, and this propensity is encouraged as much as possible, dogs' flesh being esteemed one of the choicest delicacies of the Niam-niam.

Cows and goats are familiar only by report, although it may happen occasionally that some are brought in as the result of raids that have been perpetrated upon the adjacent territories of the Babuckur and Mittoo. There would hardly seem to be any specific words in the language to denote either sheep, donkeys, horses, or camels, which, according to common conception, would all come very much under the category of fabulous animals.

The voracity of the Niam-niam appears very remarkable to their northern neighbours, and amongst the Bongo they have acquired the nickname of "Gormandizers." My travelling-companions would often laughingly point out to me the little basket of provisions with which every Niam-niam, even if he were going only a couple of leagues away from home, always took care to provide himself; outside the huts, too, there are clay-brackets in sheltered nooks, serving as receptacles for roasted maize, dough, and other kinds of food, in order that a supply of tit-bits may be constantly at hand. I can assert, from my own experience, that the pure air of the Niam-niam country is very conducive to a good appetite.

Although the Niam-niam have a few carefully-prepared dishes of which they partake, in a general way they exhibit as little nicety or choice in their diet as is shown by all the tribes (with the remarkable exception of the Dinka) of the Bahr-el-Ghazal district. The most palatable mess that I found amongst them was composed of the pulp of fresh maize, ground while the grain is still soft and milky, cleansed from the bran, and prepared by a rather ingenious method.

The acme, however, of all earthly enjoyments would seem to be *meut*. "Meat! meat!" is the watchword that resounds in all their campaigns. In certain places and at particular seasons the abundance of game is very large, and it might readily be imagined that the one prevailing and permanent idea of this people would be how to chase and secure their booty; but, as I have remarked before, there is no greater evidence of the real difference between the disposition of nations than that which is afforded by their general expression for food. As, for example, the Bongo verb "to eat" is "mony," which is their ordinary designation of sorghum, their *corn*; so the Niam-niam word is identical with "pushyoh," which is their common name for *meat*.

The accuracy of the report of the cannibalism which has uniformly been attributed to the Niam-niam by every nation that has had any knowledge at all of their existence, would be questioned by no one who had a fair opportunity of investigating the origin of my collection of skulls. To a general rule, of course, there may be exceptions here as elsewhere; and I own that I have heard of other travellers to the Niam-niam lands who have visited the territories of Tombo and Bazimbe, lying to the west of my route, and who have returned without having witnessed any proof of the practice. Piaggia, moreover, resided for a considerable time in those very districts, and yet was only once a witness of anything of the kind; and that, as he records, was upon the occasion of a campaign, when a slaughtered foe was devoured from actual blood-thirstiness and hatred. From my own knowledge, too, I can mention chiefs, like Wando, who vehemently repudiated the idea of eating human flesh. But still, taking all things into account, as well what I heard as what I saw, I can have no hesitation in asserting that the Niam-niam are anthropophagi; that they make no secret of their savage craving, but ostentatiously string the teeth of their victims around their necks, adorning the stakes erected beside their dwellings for the exhibition of their trophies with the skulls of the men whom they have devoured. Human fat is universally sold. When eaten in considerable quantity, this fat is presumed to have an intoxicating effect; but although I heard this stated as a fact by a number of the people, I never could discover the foundation upon which they based this strange belief.

In times of war, people of all ages, it is reported, are eaten up, more especially the aged, as forming by their helplessness an easier prey to the rapacity of a conqueror; or at any time should any lone

and solitary individual die, uncared for and unheeded by relatives, he would be sure to be devoured in the very district in which he lived.

The Nubians asserted that they knew cases in which Bongo bearers who had died from fatigue had been dug out from the graves in which they had been buried, and, according to the statements of Niam-niam themselves—who did not disown their cannibalism—there were no bodies rejected as unfit for food except those which had died from some loathsome cutaneous disease. In opposition to all this, I feel bound to record that there are some Niam-niam who turn with such aversion from any consumption of human flesh that they would peremptorily refuse to eat out of the same dish with any one who was a cannibal. The Niam-niam may be said to be generally particular at their meals, and when several are drinking together they may each be observed to wipe the rim of the drinking-vessel before passing it on.

Of late years our knowledge of Central Africa has been in many ways enlarged, and various well-authenticated reports of the cannibalism of some of its inhabitants have been circulated; but no explanation which can be offered for this unsolved problem of psychology (whether it be considered as a vestige of heathen worship, or whether it be regarded as a resource for supplying a deficiency of animal food) can mitigate the horror that thrills through us at every repetition of the account of the hideous and revolting custom.

Among all the nations of Africa upon whom the imputation of this odious custom notoriously rests, the Fans who dwell upon the equatorial coasts of the west, have the repute of being the greatest rivals of the Niam-niam. Eye-witnesses agree in affirming that the Fans barter their dead among themselves, and that cases have been known where corpses already buried have been disinterred in order that they might be devoured. According to their own accounts, the Fans migrated from the north-east to the western coast. In various particulars they evidently have a strong affinity with the Niam-niam. Both nations have many points of resemblance in dress and customs: alike they file their teeth to sharp points; they dress themselves in a material made from bark, and stain their bodies with red wood; the chiefs wear leopard-skins as an emblem of their rank; and all the people lavish the same elaborate care upon the arrangement of their tresses. The complexion of the Fans is of the same copper-brown as that of the Niam-niam, and they indulge in similar orgies and wild dances at the period of every full moon; they moreover pursue the same restless hunter life. They

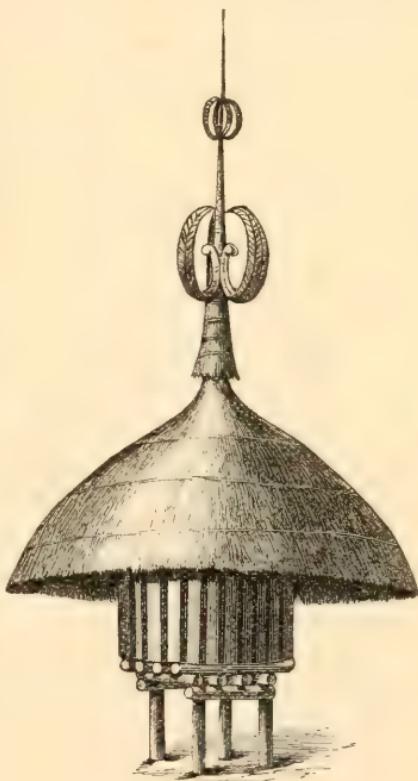
would appear to be the same of whom the old Portuguese writers have spoken under the name of "Yagas," and who are said, at the beginning of the seventeenth century, to have laid waste the kingdom of Loango.

No regular towns or villages exist throughout the Niam-niam country. The huts, grouped into little hamlets, are scattered about the cultivated districts, which are separated from one another by large tracts of wilderness many miles in extent. The residence of a prince differs in no respect from that of ordinary subjects, except in the larger number of huts provided for himself and his wives. The hareem collectively is called a "bodimoh."*

The architecture of the eastern Niam-niam corresponds very nearly with what may be seen in many other parts of Central Africa. The conical roofs are higher and more pointed than those of the Bongo and Dinka, having a projection beyond the clay walls of the hut, which affords a good shelter from the rain. This projection is supported by posts, which give the whole building the semblance of being surrounded by a verandah. The huts that are used for cooking have roofs still more pointed than those which serve for sleeping.

Other little huts, with bell-shaped roofs, erected in a goblet-shape upon a substructure of clay, and furnished with only one small aperture, are called "bamogee," and are set apart, as being secure from the attacks of wild beasts, for sleeping-places of the boys, as soon as they are of an age to be separated from the adults.

* "Bodimoh," in the Zandey dialect, has also the meaning of "papyrus."



NIAM-NIAM GRANARY.

Occasionally the peaks of the conical huts terminate in an ornament of woven straw, or sometimes in poles, upon which are placed, in rows, the great shells of the land-snail, a custom which is also common amongst the inhabitants of the Solomon Islands. It is worthy of mention that attempts at colouring are not unfrequently to be seen on the clay substructure of the granaries, and on one occasion I noticed the form of the cross depicted in a perfectly well-defined manner. Ornaments in the form of a cross, indeed, may constantly be observed in the black and white wicker-work of the shields, an apparent imitation of Christian usage, which naturally

suggests the idea that at some earlier period the Niam-niam must have had their settlements nearer the West Coast, where their closely allied neighbours, the Fans, to this very day use a kind of cross-bow, which was manifestly originally copied from the ancient sea-farers. Crosses are also found upon the shields of some neighbours of the Fans, the Ishogo, who appear to have copied the sacred symbol from strangers, and to have appropriated it as a kind of talisman.

Every sovereign prince bears the title of "Bya," which is pronounced very



BAMOGEE, OR HUT FOR THE BOYS.

much like the French word *bien*. His power is limited to the calling together of the men who are capable of bearing arms, to the execution in person of those condemned to death, and to determining whether there shall be peace or war. Except the ivory and the moiety of elephant's flesh, he enjoys no other revenue; for his means of subsistence he depends upon his farms, which are worked either by his slaves or more generally by his numerous wives. Towards the west, where a flourishing slave-trade is driven to the cost of the oppressed inhabitants who are not true Zandey, a portion of the tribute is raised by a conscription of young girls and

boys, a part of the purchase-money paid by the Darfoor traders to the chief being handed over to the parents who are thus robbed of their children.

Although a Niam-niam chieftain despairs external pomp and repudiates any ostentatious display, his authority in one respect is quite supreme. Without his orders no one would for a moment entertain a thought either of opening war or concluding peace. The defiant imperious bearing of the chiefs alone constitutes their outward dignity, and there are some who in majestic deportment and gesture might vie with any potentate of the earth. The dread with which they inspire their subjects is incredible: it is said that, for the purpose of exhibiting their power over life and death, they will occasionally feign fits of passion, and singling out a victim from the crowd, they will throw a rope about his neck, and with their own hands cut his throat with one stroke of their jagged scimitar. This species of African "Cæsarism" vividly recalls the last days of Theodore, King of Abyssinia.

The eldest son of a chief is considered to be the heir to his title and dignity, all the other sons being entrusted with the command of the fighting forces in separate districts, and generally being assigned a certain share of the hunting-booty. At the death of a chief, however, the firstborn is frequently not acknowledged by all his brothers; some of them perchance will support him, whilst others will insist upon their right to become independent rulers in the districts where they have been acting as "*behnky*." Contentions of this character are continually giving rise to every kind of aggression and repeated deeds of violence.*

Notwithstanding the general warlike spirit displayed by the Niam-niam, it is a singular fact that the chieftains very rarely lead their own people into actual engagement, but are accustomed, in anxious suspense, to linger about the environs of the "*mbanga*," ready, in the event of tidings of defeat, to decamp with their wives and treasures into the most inaccessible swamps, or to betake themselves for concealment to the long grass of the steppes. In the heat of combat each discharge of lances is accompanied by the loudest and wildest of battle-cries, every man as he hurls his weapon shouting aloud the name of his chief. In the intervals between successive attacks the combatants retire to a safe distance, and

* Of the thirty-five chieftains who rule over these 48,000 square miles of territory, comparatively few in any way merit the designation of king. The most powerful are Kanna and Mofio, whose dominions are in extent equal to about a dozen of the others.

mounting any eminence that may present itself, or climbing to the summit of the hills of the white ants, which sometimes rise to a height of 12 or 15 feet, they proceed to assail their adversaries, for the hour together, in the most ludicrous manner, with every invective and every epithet of contempt and defiance they can command. During the few days that we were obliged to defend ourselves by an abattis against the attacks of the natives in Wando's southern territory, we had ample opportunity of hearing these accumulated opprobriums. We could hear them vow that the "Turks" should perish, and that not one of them should quit the country alive; and then we recognised the repeated shout, "To the caldron with the Turks!" rising to the eager climax, "Meat! meat!" It was emphatically announced that there was no intention to do any injury to the white man, because he was a stranger and a newcomer to the land; but I need hardly say that, under the circumstances, I felt little inclination to throw myself upon their mercy.

It is in a measure anticipating the order of events, but I may here allude to the remarkable symbolism by which war was declared against us on the frontiers of Wando's territory when we were upon our return journey. Close to the path, and in full view of every passenger, three objects were suspended from the branch of a tree, viz., an ear of maize, the feather of a fowl, and an arrow. The sight seemed to recall the defiant message sent to the great King of Persia, when he would penetrate to the heart of Scythia. Our guides readily comprehended, and as readily explained, the meaning of the emblems, which were designed to signify that whoever touched an ear of maize or laid his grasp upon a single fowl would assuredly be the victim of the arrow. Without waiting, however, for any depredations on our part, the Niam-niam, with the basest treachery, attacked us on the following day.

In hunting, the Niam-niam employ very much the same contrivances of traps, pits, and snares as the Bongo; but their *battues* for securing the larger animals are conducted more systematically and on a more extensive scale.

In close proximity to each separate group of hamlets, and more frequently than not at the threshold of the abode of the local chieftain known as the "borrumbanga," or "chief court," there is always a huge wooden kettle-drum, made of a hollow stem mounted upon four feet. The sides of this are of unequal thickness, so that when the drum is struck it is capable of giving two perfectly distinct sounds. According to the mode or time in which these sounds are rendered, three different signals are denoted; the first being the signal for war,

another that for hunting, and the third a summons to a festival. Sounded originally in the mbanga of the chief, these signals are in a few minutes repeated on the kettle-drums of the "borrumbangas" of the district, and in an incredibly short space of time some thousands of men, armed if need be, are gathered together.

Perhaps the most frequent occasions on which these assemblages are made are those on which some elephants have been seen in the adjacent country. The avarice of the chiefs, ever desirous of copper, and the greediness of the people, ever anxious for flesh, make them all alike eager for the chase. I constantly saw the natives returning to their huts with a large bundle of what at first I imagined was firewood, but which in reality was their share of elephant-meat, which after being cut into strips and dried over a fire had all the appearance of a log of wood.

The thickets along the river-banks abound in many kinds of wild fowl, which the natives catch by means of snares. The most common are guinea-fowl and francolins, which are caught by a bait that is rather unusual in other places. Instead of scattering common corn in the neighbourhood of the traps, the people make use of fragments of a fleshy *Stapelia*. Birds are very fond of it, and so approved is it as a bait that I not unfrequently found it growing beside the huts, where it was planted for this particular purpose.

The handicraft of the Niam-niam exhibits itself chiefly in iron-work, pottery, wood carving, domestic architecture, and basket-work ; of leather-dressing they know no more than others in this part of Central Africa. Their earthenware vessels may be described as of blameless symmetry. They make water-flasks of an enormous size, and manufacture pretty little drinking-cups. They lavish extraordinary care on the embellishment of their tobacco-pipes, but they have no idea of the method of giving their clay a proper consistency by washing out the particles of mica and by adding a small quantity of sand. From the soft wood of several of the Rubiaceae they carve stools and benches, and produce great dishes and bowls, of which the stems and pedestals are very diversified in pattern. I saw specimens of these which were admirable works of art, and the designs of which were so complicated that they must have cost the inventor considerable thought.

As every Niam-niam soldier carries a lance, trumbash, and dagger, the manufacture of these weapons necessarily employs a large number of smiths, who vie with each other in producing the greatest variety of form. The dagger is worn in a sheath of skin attached to the girdle. The lance-tips differ from those of the Bongo in having

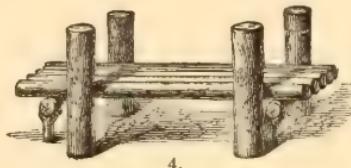
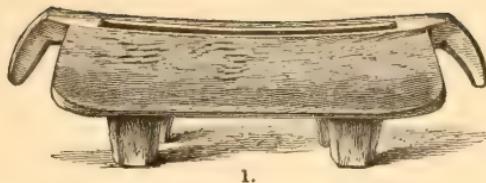
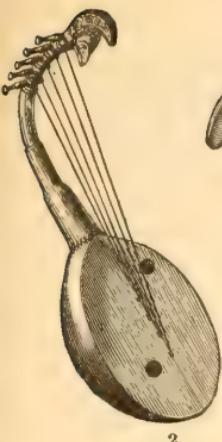
a *hastate* shape, to use the botanical term which distinguishes the *folia hastata* from the *folia lanceolata*. Every weapon bears so decidedly the stamp of its nationality that its origin is discoverable at a glance. All the lances, knives, and dagger-blades are distinguished by blood-grooves, which are not to be observed upon the corresponding weapons of either the Bongo or Dyoor.

Mutual greetings among the Niam-niam may be said to be almost stereotyped in phrase. Any one meeting another on the way would be sure to say "muiyette;" but if they were indoors, they would salute each other by saying "mookenote" or "mookenow." Their expression for farewell is "minahpatiroh;" and when, under any suspicious circumstances, they wish to give assurance of a friendly intention, they make use of the expression "badya, badya, muie" (friend, good friend, come hither). They always extend their right hands on meeting, and join them in such a way that the two middle fingers crack again; and while they are greeting each other they wave their hands with a strange movement, which to our Western ideas looks like a gesture of repulse. The women, ever retiring in their habits, are not accustomed to be greeted on the road by any with whom they are not previously intimate.

No wooing in this country is dependent, as elsewhere in Africa, upon a payment exacted from the suitor by the father of the intended bride. When a man resolves upon matrimony, the ordinary rule would be for him to apply to the reigning prince, or to the sub-chieftain, who would at once endeavour to procure him such a wife as might appear suitable. In spite of the prosaic and matter-of-fact proceeding, and notwithstanding the unlimited polygamy which prevails throughout the land, the marriage-bond loses nothing of the sacredness of its liabilities, and unfaithfulness is generally punished with immediate death. A family of children is reckoned as the best evidence and seal of conjugal affection, and to be the mother of many children is always recognised as a claim to distinction and honour. It is one of the fine traits of this people that they exhibit a deep and consistent affection for their wives.

The festivities that are observed on the occasion of a marriage are on a very limited scale. There is a simple procession of the bride, who is conducted to the home of her future lord by the chieftain, accompanied by musicians, minstrels, and jesters.* A feast ensues, at which all partake in common, although, as a general rule, the women are accustomed to eat alone in their own huts. The

* Among the Kaffirs the ceremony of conducting a bride to her new home is observed with much formality.



1. Wooden signal-drum. 2 and 3. Mandolins. 4. Bedstead. 5. Iron bell. 6. Carved head for the neck of a mandolin. 7. Carved signal-pipe. 8. Wooden dog-bell. 9, 10, 11, 12, 13. Wooden dishes. 14. Mungala-board. 15. Wooden stool.

domestic duties of a housewife consist mainly in cultivating the homestead, preparing the daily meals, painting her husband's body and dressing his hair. In this genial climate children require comparatively little care or attention, infants being carried about everywhere in a kind of band or scarf.

The Niam-niam have one recreation which is common to nearly the whole of Africa. A game known by the Nubians as "mungala" is constantly played by all the people of the entire Gazelle districts, and although perhaps it is not known by the Monbuttoos, it is quite naturalised among all the negroes as far as the West Coast. It is singular that this pastime should be so familiar to the Mohammedan Nubians, who only within the last twenty years have had any intercourse at all with the negroes of the south; but in all likelihood they received it in the same way as the guitar as a legacy from their original home in Central Africa. The Peulhs devote many successive hours to the amusement, which requires a considerable facility in ready reckoning; they call it "wuri." The game is played likewise by the Foolabs, the Yolofs, and the Mandingo, on the Senegal. It is found again among the Kadje, between the Tsad and the Benwe. The recurrence of an object even trivial as this is an evidence, in its degree, indirect and collateral, of the essential unity that underlies all African nations.

The "mungala" itself* is a long piece of wood, in which two parallel rows of holes are scooped out. Nubian boards have sixteen holes, the Niam-niam have eighteen. Each player has about two dozen stones, and the skill of the game consists in adroitly transferring the stones from one hole to another. In default of a board the game is frequently played upon the bare ground, in which little cavities are made for the purpose.

Having thus detailed their warlike demeanour, their domestic industry, and their common pastime, I should not omit to mention that the Niam-niam are no strangers to enjoyments of a more refined and ideal character than battles and elephant-hunts. They have an instinctive love of art. Music rejoices their very soul. The harmonies they elicit from their favourite instrument, the mandolin, seem almost to thrill through the chords of their inmost nature. The prolonged duration of some of their musical productions is very surprising. Piaggio, before me, has remarked that

* A mungala-board is represented in Fig. 14 of the plate illustrating Niam-niam handicraft. The word mungala is Arabic, and derived from nagal; *i.e.* to carry from one place to another; just as mangal or mangad is the portable cooking-apparatus of the Arabs.

he believed a Niam-niam would go on playing all day and all night, without thinking to leave off either to eat or to drink ; and although I am quite aware of the voracious propensities of the people, I am half-inclined to believe that Piaggia was right.

One favourite instrument there is, which is something between a harp and a mandolin. It resembles the former in the vertical arrangement of its strings, whilst in common with the mandolin it has a sounding-board, a neck, and screws for tightening the strings. The sounding-board is constructed on strict acoustic principles. It has two apertures ; it is carved out of wood, and on the upper side is covered by a piece of skin ; the strings are tightly stretched by means of pegs, and are sometimes made of fine threads of bast, and sometimes of the wiry hairs from the tail of the giraffe. The music is very monotonous, and it is very difficult to distinguish any actual melody in it. It invariably is an accompaniment to a moaning kind of recitative, which is rendered with a decided nasal intonation. I have not unfrequently seen friends marching about arm-in-arm, wrapt in the mutual enjoyment of their performance, and beating time to every note by nodding their heads.

There is a singular class of professional musicians, who make their appearance decked out in the most fantastic way with feathers, and covered with a promiscuous array of bits of wood and roots and all the pretentious emblems of magical art, the feet of earth-pigs, the shells of tortoises, the beaks of eagles, the claws of birds, and teeth in every variety. Whenever one of this fraternity presents himself, he at once begins to recite all the details of his travels and experiences, in an emphatic recitative, and never forgets to conclude by an appeal to the liberality of his audience, and to remind them that he looks for a reward either of rings of copper or of beads. Under minor differences of aspect, these men may be found nearly everywhere in Africa. Baker and some other travellers have dignified them with the romantic name of "minne-singers," but the designation of "hashash" (buffoons) bestowed upon them by the Arabs of the Soudan would more fairly describe their character. The Niam-niam themselves exhibit the despicable light in which they regard them by calling them "nzangah,"* which is the same term as that by which they designate those abandoned women who pollute Africa no less than every civilized country.

* In Loango all exorcists and conjurors are called "ganga," an appellation which would appear to have the same derivation as this Zandey word "nzangah." The "Griots" in Senegambia are held in the same contempt as the Niam-niam minstrels.

The language of the Niam-niam (or, to speak more properly, the Zandey dialect), as entirely as any of the dialects which prevail throughout the Bahr-el-Ghazal district, is an upshoot from the great root which is the original of every tongue in Africa north of the equator, and is especially allied to the Nubio-Lybian group. Although the pronunciation is upon the whole marked and distinct, there are still certain sounds which are subject to a considerable modification, even when uttered by the same individual. The nasal tone which is given to the open sounds of *a* and *e* as they rise from the throat fix a character upon the articulation that is quite distinct from that of the Bongo, and altogether the dialect is poorer in etymological construction, being deficient in any separate tenses for the verbs; it is, moreover, far less vocalised, and has a cumbrousness which arises from the preponderance of its consonants.

The language is undoubtedly deficient in expressions for abstract ideas. For the Divinity I found that many interpreters would employ the word "gumbah," which signifies "lightning," whilst, in contrast with this, other interpreters would make use of the term "bongbottumu;" but I imagine that this latter expression is only a kind of a periphrasis of the Mohammedan "rasool" (a prophet, or messenger of God), because "mbottumu" is their ordinary term by which they would designate any common messenger or envoy.

Although none of the natives of the Gazelle district may be credited with the faintest conception of true religion, the Niam-niam have an expression of their own for "prayer" as an act of worship, as they see it practised by the Mohammedans. This word is "boroo." When, however, the expression is examined, it is found really to relate to the augury which it is the habit of the people to consult before they enter upon any important undertaking.

The augury to which I have thus been led to refer is consulted in the following way. From the wood of the *Sarcoccephalus Russeggeri*, which they call "damma," a little four-legged stool is made, like the benches used by the women. The upper surface of this is rendered perfectly smooth. A block of wood of the same kind is then cut, of which one end is also made quite smooth. After having wetted the top of the stool with a drop or two of water, they grasp the block and rub its smooth part backwards and forwards over the level surface with the same motion as if they were using a plane. If the wood should glide easily along, the conclusion is drawn that the undertaking in question will assuredly prosper; but if, on the other hand, the motion is obstructed and the surfaces adhere together—if, according to the Niam-niam expression, a score

of men could not give free movement to the block—the warning is unmistakable that the adventure will prove a failure.

Now, since they also use this term “boroo” to describe the prayers of the Mohammedans, there seems some reasonable evidence for supposing that they actually regard this rubbing as akin to a form of worship. As often as I asked any of the Niam-niam what they called prayers, they invariably replied by referring to this practice and by making the gesture which I compare to working with a plane. This praying-machine is concealed as carefully as may be from the eyes of the Mohammedans. It was, however, frequently resorted to during the subsequent brief period of warfare, when my own Niam-niam attendants diligently consulted the oracle, and, as the result was uniformly satisfactory, it contributed not a little to confirm their confidence in my reputation for good luck.

There are other ordeals common to the Niam-niam with various negro nations, and which are considered as of equal or still greater importance. An oily fluid, which is concocted from a red wood called “bengye,” is administered to a hen. If the bird dies, there will be misfortune in war; but if the bird survives, there will be victory. Another mode of trying their fortune consists in seizing a cock, and ducking its head repeatedly under water until the creature is stiff and senseless. They then leave it to itself. If it should rally, they draw an omen that is favourable to their design; whilst, if it should succumb, they look for an adverse issue.

A Niam-niam could not be induced to go to war without first consulting the auguries, and his reliance upon their revelations is very complete. For instance, Wando, our inveterate antagonist, although he had succeeded in rousing two districts to open enmity against us, yet personally abstained from attacking our caravan, and that for no other reason than that his fowl had died after swallowing the “bengye” which had been administered to it. We awaited his threatened attack, and were full of surprise that he did not appear. Shortly afterwards, we were informed that he had withdrawn in fear and trembling to an inaccessible retreat in the wilderness. Our relief was considerable. It might have fared very badly with us, as all our magazines were established on his route; but, happily, he had gone, and the Niam-niam with whom we were brought in contact stoutly maintained that it was the death of his fowl alone which had deterred him from an assault and rescued us from entire destruction.

These auguries are also consulted in order to ascertain the guilt or innocence of any that are accused, and suspected witches are tried by the same ordeal.

The same belief in evil spirits and goblins which prevails among the Bongo and other people of Central Africa is found here. The forest is uniformly supposed to be the abode of the hostile agencies, and the rustling of the foliage is imagined to be their mysterious dialogue. Superstition, like natural religion, is a child of the soil, and germinating like the flowers of the field it unfolds its inmost secrets. Beneath the dull leaden skies of the distant North there are believed to be structures haunted by ghosts and spectres. Here the forest, with its tenantry of owls and bats, is held to be the abode of malignant spirits ; whilst betwixt both are the Oriental nations, who, without forests, and exposed to the full strength of a blazing sun, fear nothing so much as "the evil eye." Truly it may be averred that the development of superstition is dependent upon geographical position.

I will conclude this chapter in the same manner as the record of the Bongo, by a few remarks upon the customs of this people with regard to their dead.

Whenever a Niam-niam has lost any very near relative, the first token of his bereavement is given by his shaving his head. His elaborate *coiffure*—that which had been his pride and his delight, the labour of devoted conjugal hands—is all ruthlessly destroyed, the tufts, the braids, the tresses being scattered far and wide about the roads in the recesses of the wilderness.

A corpse is ordinarily adorned, as if for a festival, with skins and feathers. It is usually dyed with red wood. Men of rank, after being attired with their common aprons, are interred either sitting on their benches, or are enclosed in a kind of coffin, which is made from a hollow tree.

According to the prescriptions of the law of Islam, the earth is not thrown upon the corpse, which is placed in a cavity that has been partitioned off at the side of the grave. This is a practice mentioned before, and which is followed in many heathen parts of Africa.

Like the Bongo, the Niam-niam bury their dead with a scrupulous regard to the points of the compass ; but it is remarkable that they reverse the rule, the men in their sepulture being deposited with their faces towards the east, the women towards the west.

A grave is covered in with clay, which is thoroughly stamped down. Over the spot a hut is erected, in no respect differing externally from the huts of the living, and being equally perishable in its construction, it very soon either rots away through neglect or is destroyed in the annual conflagration of the steppe-burning.

GENEALOGICAL TABLE OF THE REIGNING NIAM-NIAM PRINCES IN 1870.

<i>Endeneh</i>	<i>MABENGEL*</i>	<i>Yap-ty*</i>	<i>Tonibo*</i>	<i>Bazimbe*</i>	<i>Munuba*</i>	<i>Kecti*</i> (surnamed <i>Nikkima</i>)	<i>Lanna</i>	<i>Bukingeh</i>	<i>Mbituna</i>	<i>Ghendwa</i>	<i>Agurra</i>	<i>Mongeh</i>	<i>Indumia</i>
<i>Renji</i>	<i>Bilia</i>	<i>Perkye</i>	<i>Nunga</i>	<i>Ingerria</i>	<i>Nyanze</i>	<i>Nganye</i>	<i>Matimdo</i>	<i>Bendo</i>	<i>Mbedly</i>	<i>Gumba</i>	<i>Imma</i>	<i>Mango</i>	<i>Nyongalia</i>
<i>Batyah</i>			<i>Samuel</i>	<i>Wicailo</i>	<i>Malinagle</i>	<i>Wicailo</i>	<i>Matimdo</i>	<i>Moewich</i>	<i>Gumbala</i>	<i>Imma</i>	<i>Mango</i>	<i>Mbagally</i>	<i>(surnamed Surroor)</i>
<i>Neende</i>				<i>Ingerria</i>	<i>Ingerria</i>	<i>Malinagle</i>	<i>Malinagle</i>	<i>Malinagle</i>	<i>Carria</i>	<i>Carria</i>	<i>Bezech</i>	<i>Nduppero*</i>	<i>Rikete</i>
<i>Indumia</i>						<i>Carria</i>	<i>Carria</i>	<i>Carria</i>	<i>Mofio</i>	<i>Mofio</i>	<i>Nyongalia</i>		
<i>Indumia</i>									<i>Ringlio</i>	<i>Ringlio</i>	<i>Ringlio</i>		
<i>Indumia</i>									<i>Ezo*</i>	<i>Ezo*</i>	<i>Ezo*</i>		
<i>Indumia</i>										<i>Ngeltoh</i>	<i>Ngeltoh</i>		
<i>Indumia</i>										<i>Nderima</i>	<i>Nderima</i>		

Note.—The names of reigning princes are printed in italics. The names of deceased princes are marked thus.*

LONDON :
PRINTED BY WILLIAM CLOWES AND SONS,
STAMFORD STREET AND CHARING CROSS.

pt

3 5282 00182 8881

DATE DUE

African Institute

DT361
S41
1878x
v.1

STACKS DT351.S41 1878x vol. 1
Schweinfurth, Georg August,
The heart of Africa



3 5282 00182 8881

