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FROM MOSSAMEDES TO THE VICTORIA FALLS

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Read at the Meeting of the Society, 5 November 1923.

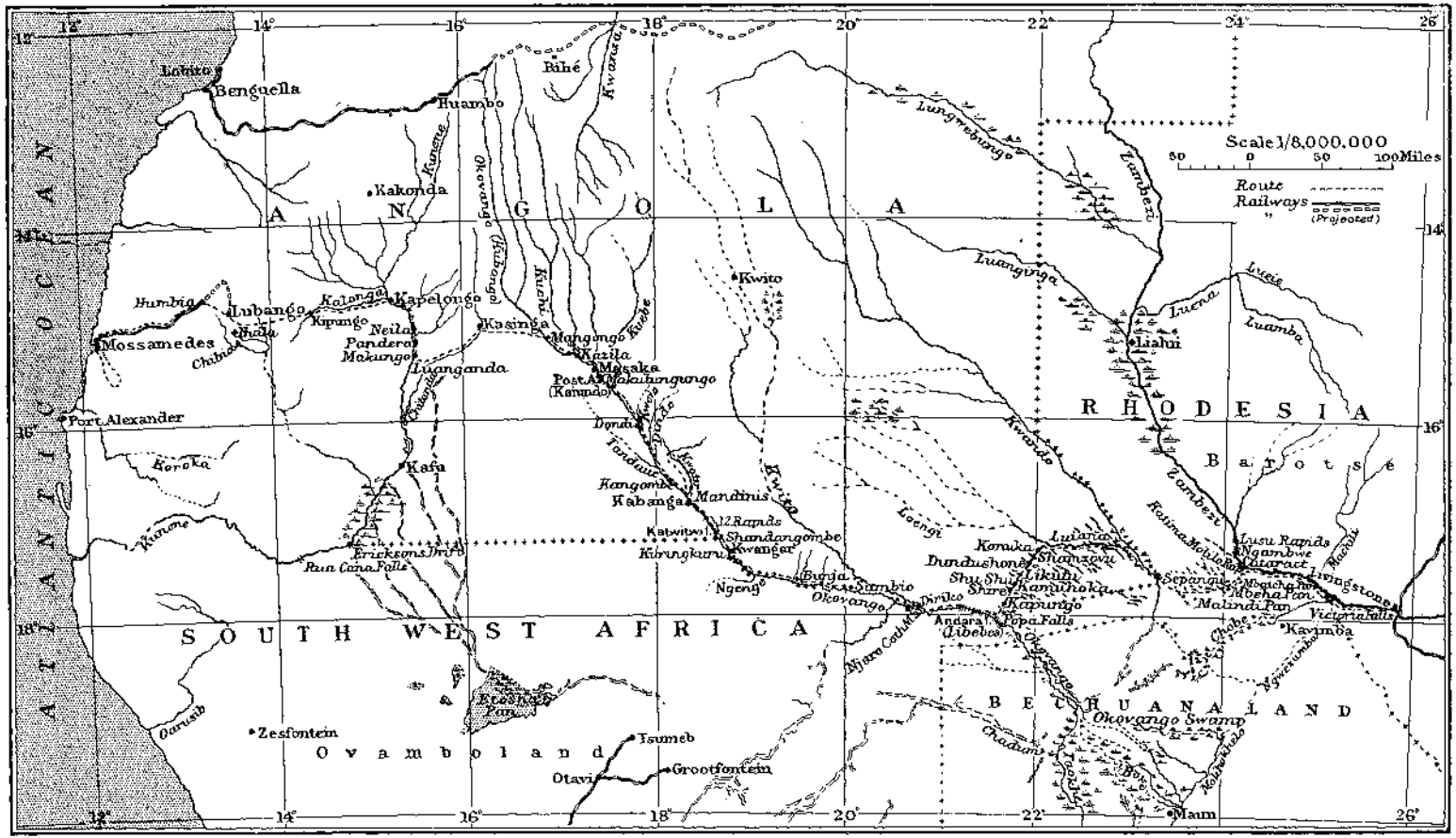
THE route which my wife and I followed on our journey across Africa was from Mossamedes to the middle Kunene river, thence to the Kubango, and along this river, mainly in canoes, for 500 miles to Libebes, near the Popa falls, where, owing to various causes, a north-eastward direction had to be taken across an almost waterless sand-belt to the Loengi river. The practically unknown Loengi was followed to its junction with the Kwando, and when a canoe voyage down the latter was found impossible, the journey was continued through the dry sand-belts in the Caprivi strip to the Zambezi, which we reached at the Katima Molilo rapids, and followed to the Victoria Falls.

As often happens in Africa, the latter part of the actual route differed considerably from that originally intended—which was a canoe voyage down the Zambezi system of rivers, the Kubango, Kwando, and Zambezi, to the Victoria Falls. The obstacles which forced us to abandon this scheme were the reported want of water in the Selinda channel which joins the Kubango to the Kwando, the danger or even impossibility of canoeing down the reed-covered and hippo-infested lower Kwando, and finally an injury I received.

Among the objects of the journey was to study the people and animal-life of little-known south-eastern Angola and the northern Kalahari, to make a collection of plants, and learn something of the nature and possibilities of the country.

Our sea journey from England to Mossamedes, from where we started inland, was very picturesque and varied, including a visit to seventeen African islands and ports: some of them, like San Thome, Principe, and Fernando Po, being very beautiful in their wealth of tropical verdure; while we were fortunate in seeing the Cameroons mountain in eruption, lava and ashes lying deep where I had often roamed in the earlier years of the war.

The coasts of Angola gradually lost its tropical appearance, the beaches, which were arid near Lobito Bay, changed soon after to the desert coast-line which is seen all down South-West Africa to the Orange



Sketch-map to illustrate Colonel Statham's paper: From Mossamedes to the Victoria Falls.

River. The cold Antarctic current which has helped to form the harbour of Loanda and Lobito has probably contributed to the aridity of the region, and is responsible for the heavy mists which shroud this coast and make it cold and damp, when the east coast of Africa in similar latitudes is hot. This mist cost the lives of many passengers and wrecked the steamer *Mossamedes*, on which we had intended to return home from Africa.

We landed at Mossamedes in the middle of May, that is, the cold season. I made a hundred-mile journey by motor car in the desert country south of that town, and between it and Port Alexander, and found the sand-dunes of the coast gradually change to a scrub region with low trees further inland, which in its turn ends at the magnificent scarp of the Shella range which rises from 4000 to 6000 feet above the plain. If in the north and centre of Angola the coastward wall of the highlands lies broken, and the rise to higher plateaux is by terraced hills cut by many a valley, here in the south for mile on mile was a rampart so steep, so rugged, so crowned with granite dome and crag and pillar, as to give the picture of some gigantic fortressed city.

In this desert country there is little human life, the only natives being the primitive Ba Koroka and Ba Kuisso, who appear to have Bushman as well as Bantu blood in their veins. The animal-life has greatly diminished, owing to human persecution, and the plant-life is xerophitic and poor, though including that wonderful plant *Welwitschia mirabilis*. By day the country is monotonous except in its mirages, but at sunrise and sunset one may see the great wall of the Shellas touched with varied and fast-changing colours.

From Mossamedes we started eastwards by the southernmost of the railways which penetrate Angola. It is the shortest of these lines, and a miniature railway which, crossing the arid coast-belt, climbs up a valley in the Shellas towards Lubango township, 5000 feet up on the southern Angolan plateau, which slopes gradually eastward to the Zambezi, and more rapidly southward to the Kunene and the frontier of S.W. Africa. In this plateau are forests and green glades, streams and waterfalls, and where we stayed at Lubango and in the adjoining townships of Huilla and Chibia, is a white population of 3000 to 4000 Portuguese settlers, and a few Boers.

We had planned to begin our waggon trip at Lubango, but the delay on our sea journey forced us to push on as rapidly as possible, and by good fortune one of the two or three available motor lorries was obtained, and the first 130 miles of the journey as far as Kapelongo on the Kunene was made by that unusual method. On the journey we crossed the Kakoluvar tributary of that river and followed two others, the Sinde and Kalonga, which were but a series of pools in the winter months.

From the Kunene to the Kubango.

The Kunene at Kapelongo was a deep river some 80 yards across, flowing at 2 or 3 miles an hour, and navigable only in short stretches. We followed this river in a small two-wheeled waggon for some 80 miles southwards, often forcing a way through forest and over bad boulder-strewn ground, when the little waggon drawn by eight oxen was in constant danger of overturning or being smashed. We managed to survive this, and even worse country, when after a week's elephant hunting we left the Kunene at the Makungo rapids, to push our way on through the forest to Kassinga post and towards the Kubango.

The Kunene runs south for some hundreds of miles, and then turns abruptly west. It has been suggested that the river at one time continued south, and formed a river and lake system in Ovamboland, of which the Etosha pan and a few dry watercourses are the remains. The supposed proof of this is the occasional flooding of this region by water coming from spillways in the Kunene, and it is thought that, possibly owing to the silting up of its old southerly channel, the Kunene broke away westwards, or was beheaded by head-stream erosion of the short coastal river which is now the lower Kunene. It is even urged by Dr. Schwarz that a dam placed at a suitable point would divert the water to the old channel and again bring a river and lake system to North Damaraland (Ovamboland), which is now rapidly drying up, but might thus again be rendered fertile. Yet to tap the Kunene, or change its course, would undoubtedly be very difficult, for the forces which could have brought about such a deviation must still be present, even if the old channel could be opened.

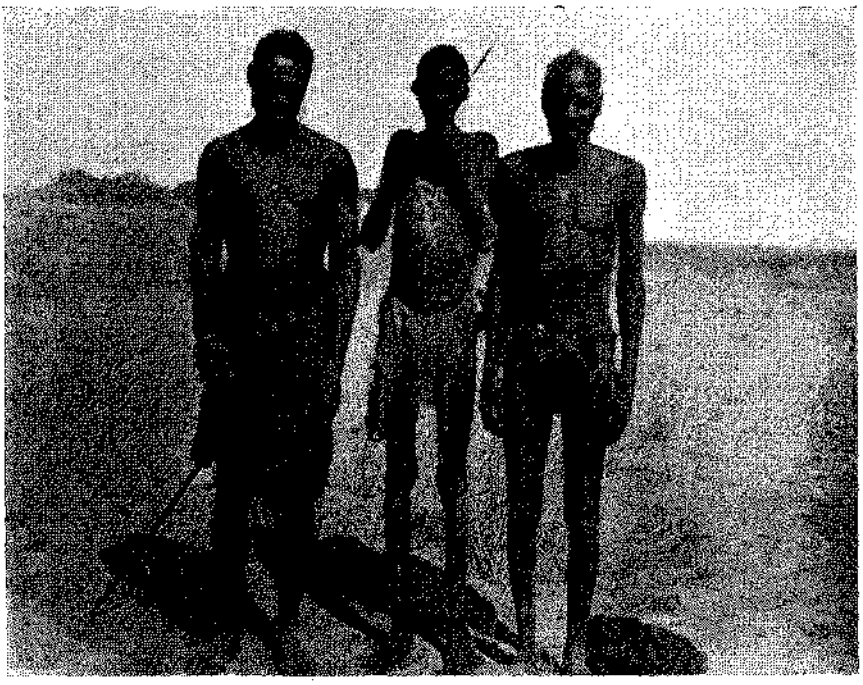
The Kunene itself is navigable in certain reaches between Kapelongo and Malundu, where I know it personally; above and below this it is, I understand, practically unnavigable. Below Erickson's drift the cataracts are numerous, culminating in the 300-foot falls at Rua Cana. Below these falls the river has recently been described in the *Journal* by Mr. Maudslay Baynes.

From the Kunene we travelled eastward to a river with the quaint name of "River of the thorn trees," and across it to the Chitanda, a Kunene tributary with alternating stretches of pools and rapids, which we followed till we reached Kasinga post, passing on our way the old gold-workings which have been famous in Angola for centuries, and attracted many a Portuguese expedition into the interior. From Kasinga, where we found a solitary Portuguese official and an abandoned mission station, we continued our waggon journey across the watershed between the Kunene and Kubango, crossing the headwaters of an old river system: the Kuvelai and Kavando river-beds, which once flowed south to the Etosha pan, but are now dry except for a short period in the rains, when they are filled from the sides, and as far as I could learn do not flow as they did less than a hundred years ago. We met the

JUNCTION OF THE KUCHI AND KUBANGO

THE KUNENE RIVER

BA KWATIR WITH MANGONGO FRUIT



BA KWANGAR AND BUSHMAN

BA HUMBE WOMEN ON THE KUNENE

Umbale tributary of the Kubango but a day after leaving the last tributary of the Kunene, the Kalonga, which at one point is only 12 miles from the Umbale.

We saw few people in the region beyond the Kunene, but on this river were a number of villages of various tribes who had crossed it to escape a warrior race called the "Kuanyamas," whose home is near the southern Angolan border, but who carried murderous raids and forays far to north and east, and were a terror in the land till subdued by the Portuguese.

The Kunene women have very curious head-dresses of tresses plastered with various substances, made up with fibre and false hair, and shaped sometimes like a fireman's helmet. They wear a small apron in front and behind, strings of beads and ornaments of brass on their necks, arms, and legs.

The people of the Kunene, like the tribes of the Kubango, are of Bantu stock and very different from the Bushmen of the Kung, Hukwe, and other races met further south; different also from the Ba Koroka and Ba Kuisso, who were met on the west and appear to have Bushman blood in their veins.

The fauna of the middle region was far more plentiful than that on the coast or between it and this river, and must have been unusually numerous before the Boer hunters shot it down. There were elephant, hippopotamus, rhinoceros, buffalo, kudu, roan, wildebeeste, zebra, the black-faced pallah, reedbuck, duiker, oribi, and the usual carnivora. The larger animals are becoming increasingly rare, and buffalo, rhinoceros, and hippopotamus are nearly exterminated on the middle Kunene.

Bird-life is richer and more varied here than near the coast or eastwards on the Kubango, and resembles in its variety of aquatic birds the middle Zambezi valley. Fish and reptiles were equally numerous, especially the crocodiles, which swarmed—one of them nearly ending my existence when filling a canvas water-bag at the river, where he stalked me under water, and then rushed and snapped at my arm.

The watershed between the Kunene and Kubango, the northern portion of which we traversed on our journey, is an undulating country 3000 to 4000 feet above sea-level, covered with open forest interspersed with glades. The trees are mainly *Berlinia Baumii*, but associated with *Copaifera coleosperma* and *Burkea africana*.

Our little waggon fortunately survived the bumps and smashes against the trees and boulders through the forests of the Kunene, or the terribly rough tracks along the Chitanda river, and between Kassinga and the Kubango, and brought us to this river by June 15.

Waggon Journey down the Kubango to Kaiundo. (Posto A.)

Where we met the Kubango, just above Mangongo village, it was a big river, perhaps 80 yards across, even in this the dry season, and flowing deep and clear between low hills and steep banks, clad in flowering

reeds. The river here was navigable in stretches, but 20 miles to the north were the Kakombo cataracts, while we were to meet even greater falls, those of the Makulungungo, before we reached Kaiundu. We followed the right or western bank of the river until we reached this post.

I had crossed the Kubango near its source during my Angolan expedition in 1920, when marching from Bihe towards the then rail-head of the Lobito line, and a day after I had stepped across the headwaters of its greater tributary streams, the Kuchi and Kwito. There these were all rivulets, with just a trickle of water, but that was some 200 miles north of us, and now I was looking at a mighty river, and was to follow its course for hundreds of miles, while the little Kuchi rivulet, met again 50 miles further on, was a deep placid river.

Of the tributaries we passed, the Umbale river does not flow the whole year round, like the Kuchi which we met 60 miles below the Umbale. I canoed up this river for some distance, to find it a deep stream 30 yards wide, flowing through a reed- and grass-grown shallow valley, which is apparently inundated in the rains. The Kubango and some of its tributary rivers flow in curious courses, which look almost unnatural on the map, so straight and parallel are they. In the upper reaches the river valleys are open and grass-grown, affording pasture to great herds of lechwe and roan antelope.

The Kubango, gathering tributary after tributary, passes on within high reed- and tree-fringed banks, sometimes through low valleys, often between stony hills, and over many a score of rapids, to end, after a splendid river career of near 1000 miles, miserably in swamp and sand-belt in the Kalahari. Some think it had at one time a better ending, in the once great Ngami lake. Others believe it earned perhaps greater glory in helping the Zambezi and Kwando to cut that marvellous basalt gorge at the Victoria Falls. Whatever is true, the Kubango's fate is unworthy of the great river we followed for so far and so long.

Among the people of the upper Kubango are the Bihes, a wonderful tribe whose porters travel everywhere in Africa, in whose veins run Bengalla and Jagga blood, and whose very origin was a romance; for the kingdom was founded by the mighty hunter Bihè, who had wandered north from his home in Humbe in search of elephants, and found a northern bride. To the south of the Bihe are the Ganguellas, which may mean either stammerers or People of the East, but does denote a tribe, and not, as many still claim, a country.

The Ambuellas who live to the south of the Ganguellas are as peaceful as the others are warlike, timid as they are savage. These people speak Kimbundu, are a kindly, hospitable folk, and for negroes, hard working. They plant the usual crops of manioc, mealies, messango and macundi, from which they make beer; and even a little cotton, which they weave into a rough cloth. They herd cattle, goats, and sheep, and do a little

ironwork; but some of them, like the Kanguellas of Masaka, make pottery of a clay found in the neighbourhood. The most striking characteristic is the fashion of their hairdressing, for while the men simply shave it in various devices, a circular tuft of hair being left, or a strip from forehead to neck, the women compose a striking head-dress. With them the hair is parted in the middle and formed into two rolls, one on either side, which are united behind: the hair being stiffened and kept in place with fibre, and the crests and edges of the rolls of hair being edged with beads in the most effective way, while they carry many strings of beads round their necks as well. They wear skins, and nowadays cloth aprons, and use bracelets of copper, and even of skin.

Pacific among themselves as well as with their neighbours, the Ambuellas rarely kill or bewitch each other, trial by ordeal seems unknown, and while medicine doctors are respected, wizards are detested and avoided. The villages are usually palisaded, or surrounded with thorn fences. The huts, generally conical, sometimes square, are well roofed, the walls sometimes decorated with patterns. The Ambuellas have quite a taste in furniture, using wooden benches and chairs, and excellent wooden and earthenware pots. Their weapons are spears, bows and arrows, and kerries.

Twice we met Bushmen. Once a little west of the Kubango we found the little men were making gourds in a village, where they had come to earn other food than the flesh and roots which is the usual portion of these wandering and elusive little people. Once more, near Kabanga and again lower down the Kubango, we saw their little encampment of a mat or two under a temporary leaf shelter, where they had stopped to eat a kudu, wounded with a poisoned arrow, and then tracked for miles to where it died and the family camped.

At Masaka we saw the first village since Mangongo, though one or two had been passed unnoticed on the opposite bank. The people of Masaka now lived on the left bank of the river, though but a few years ago they had hidden like wild beasts on an island in its stream. Here only were they and their cattle safe from the marauding Kuanyamas, who had no canoes of their own to reach them, and could not swim the crocodile-infested waters of the deep Kubango. There are plenty of crocodiles still, but very few hippo, which pay endless toll to the native hunters and the rare Portuguese who pass this way.

Our arrival at Kaiundo, where we commenced the canoe journey, was somewhat dramatic, for a troop of lions had been killing a large number of cattle and were said to have killed people as well. An hour after my arrival I managed to kill one lion and wound another, and bring a certain degree of security to the fort, where sentries had been posted on the walls and had been firing every night to keep the lions away. This troop of lions did not worry the post the next ten days of my stay there, and apparently continued their march up river, for it appeared that the

lions had been moving up the Kubango from a long distance south, killing cattle as they went.

Canoe Voyage from Kaiundo down the Kubango to Libebes.

We waited at Kaiundo for ten days to collect carriers for our loads, as there was only one canoe available, 18 feet long by 1 foot 9 inches wide, and cut out of a tree. This dugout was kindly lent us by Lieut. Lacerda for our own use, and it could only carry two or three loads besides my wife, myself, and a couple of paddlers, yet it was by far the best canoe we were able to obtain on the Kubango.

Below Kaiundo the river turned and twisted between high banks and occasional low hills covered with a sandy soil, on which was a growth of small open forest interspersed with grass-grown clearings, here called "shanas." Generally pretty, the river was sometimes unusually picturesque, especially when the clear blue stream ran over rapids and under rugged and high escarpments. We passed half a dozen such places, and quickly realized that our canoe journey was to be arduous and even very adventurous, for in the first four days alone we met nearly thirty islands, rocks, or rapids. The paddlers did not know the river, and there were practically no villages on the banks, so that we had to trust to a rapid reconnaissance and the luck of meeting no submerged rocks, as the canoe rushed towards the channel which, after an anxious glance through binoculars, appeared to give the best chances of safety. The river's width varied from 50 to 80 yards, and the current was sometimes 7 or 8 miles an hour through the narrows and rapids, though only 2 or 3, or even less, through the broads. The depth was from less than 1 foot to 20 feet and more in the deep pools near the rock escarpments. We were travelling, of course, in the dry season, and one that had followed a scanty summer rainfall, so that nothing should prevent a small motor launch navigating the upper reaches of the river in flood-time, for about half the year. Below an island named Dondi, which had once held a village of refugees in the days of the raiding Kuanyamas, we met serious obstacles to our progress, and nearly a dozen rapids in the first three days, besides endless rocks, both submerged and apparent, and a number of islands and sandy shallows. For the next stretch of 40 miles nothing but a small canoe like ours could have found a way without disaster, and even our canoe did not escape, for on three occasions we struck rocks or jammed in the rapids, had to take to the water, and found such difficulty in rescuing the guns and cameras we had in the canoe that a rule was made to carry the latter and all but one of our rifles on land when possible: the least valuable rifle going in the canoe in case of attack by crocodile or hippo. This decision was fortunate, for we just escaped a bad wreck a few days after.

Between the post of Kaiundo and the Kwatiri we had passed two rivers of importance on the left or eastern bank, the Kuebe 10 miles below

Kaiundo, and the Kweio just south of the old post of Dondi; but none on the other. In fact, the country on the right bank of the Kubango provides practically no perennial water to this river, and the murambas or intermittent channels are not numerous. The country to the south-west of this river, and between it and the Kunene, has a river system of its own, which takes water not only from this area, but from both rivers during the rains. These river spillways thus help to form the river-beds called the Kuvelai and Kavandu, which join further south to enter the Etosha pan. From what I saw of the country, and have heard and read, it appears to be slowly drying up, and tending to turn into a desert, which will gradually merge into the adjoining one in S.W. Africa.

The Kubango between Kaiundo and the Kwatiri is navigable for native canoes only in the dry season, for between these points we counted twenty-one rapids, besides many islands, and rocks both submerged and above the water. The rapids were usually shallow, the river running over rocks, small boulders, pebbles, gravel, or even sand, the current varying from 2 to 7 miles an hour, according to the fall and width of the river, which varied from 40 to 100 yards.

The people of the region, and as far as the Kwatiri, appeared to be closely allied to the Ambuellas, if not of that tribe. The land was hilly and between 3000 and 4000 feet above the sea. The rock appeared to be a reddish quartz and sandstone, and the sandy surface soil still continued, but the type of forest had changed; the *Berlinia Baumii* had disappeared, and the principal trees seemed to be the M'Shibi (*Copaifera coleosperma*) and *Baikia plurijuga*, the seeds of which were used by the native for food and oil; another useful tree was the "Mabok" (*Strychnos Schumanniana*) with its big round fruit, while in the grasslands were some ground orchids, like the Eulophia and *Disa equestris*, and where the ground was swampy, *Proteaceæ* with pretty white flowers.

The fauna was similar to the Kunene, but lacked the defassa water-buck and wildebeeste, and included the tsessebe and a lechwe, while the impallah, along the Kubango, from Kabango southwards, were no longer the black-faced variety named *A. petersi*, but a variety of the ordinary pallah, with much smaller horns than those of East and South Africa, the black patch between the ears more marked, and with other minor differences which may induce some zoologist to subdivide them from *A. Melampus*. The Oribi carried very big heads; I shot one with horns 7 inches long, and the coat was much brighter than the type met with on the Kunene. Like most of my other trophies the Oribi skins were abandoned through lack of carriers or have been lost, and the skull alone remains, to determine if the Kubango Oribi is a new subspecies.

We reached the Kwatiri, a tributary of the north bank of the Kubango, on July 8, and suspended our journey to explore this stream. For the first 20 miles we found the Kwatiri flowing through a swampy valley, bordered by higher undulating ground, which here and there might be

termed low hills. In the dry season the actual stream was only a few feet wide, but reed swamps extended for several hundred yards on either side of the running water. Further north the valley became narrower, but I understand from the natives that it opens out again in several places beyond where we penetrated.

Below the Kwatiri we canoed along beautiful stretches of the Kubango, where it ran between forest-covered hills, and the banks were shaded by big trees and occasional palms. Unfortunately the very nature of the scenery brought its difficulties, for what had been a placid river running in long and straight stretches soon turned to a rock-strewn stream running noisily over rocks, pebbles, and boulders, and sweeping in black swirls by larger rocks and islands, so that between the Makakutre stream where we had lunched and Shakandi island, a distance of 11 miles, we had only 4 miles of clear water in all, and passed thirty rapids or dangerous rocks and seven islands—a warning, had we heeded it, of what was yet to come.

We had heard that river navigation was difficult ahead, and fortunately took the precaution of sending our cameras and more valuable rifles by the carriers, who marched along the road; while for the last few days we had always removed our boots, gaiters, and anything we carried, like cartridges and binoculars, which could interfere with swimming. Having done this the rest had to be left to good steering, steady nerves, the luck of the occasion, and our capacity for saving ourselves once we were in the water. This capacity was tested the next day, when we were unable to clear a rapid: our canoe collided with another, and the occupants and contents of both were thrown into the surging stream, to escape with difficulty and not without damage.

The next day the rapids became less numerous, only eleven being met with in the 18 miles to Kwangar. We swept round a bend, to see a white fort, imposing and castellated, looking down on a long stretch of river, and across to a brick house perched on a knoll on the opposite bank. The fort was Kwangar, the Portuguese outpost of their frontier; and the brick houses formed the post of Kuringkuru, which had long flown the Imperial flag of Germany, but was now a portion of His Majesty's Dominions, the mandated territory of South-West Africa.

At Kwangar we found that carriers were unobtainable, for though the left bank of the Kubango as far as Libebes, sometimes called Andara on the map, continued to be Portuguese, the right bank was British, and possibly superior economic attractions had drawn the native population away from the Portuguese side to our own, and these people would not come down the river with us. So at Kwangar we took our courage in both hands and with rather troubled hearts committed all we had to a flotilla of three dongas, or canoes, and the end section of a small flat-bottomed pontoon boat, which our friend the Portuguese sergeant commanding Kwangar procured for us. We also added to our paddling

strength at Kwangar, for in addition to the one soldier and three policemen from Kaiundo, we were lent four more native police, and I managed to engage a native who spoke Portuguese. We had thus just enough men to man the little iron boat and the three canoes. None of the new men were good paddlers, but one could handle a pole, and had a certain amount of courage, so he was put in the tiny iron boat with a new man, while one of our old staff was placed at the steering end of each of the three canoes. Two of the canoes were sadly in need of repair when we first saw them at Kwangar, but with hard work, some pitch, rags, and cement, we managed to get them patched up before we started, besides making half a dozen new paddles.

We embarked our loads on the afternoon of July 19, our canoe leading the rest of the flotilla, which had orders to follow where we led, as the crews were such poor boatmen. Our proper course would have been to engage canoe-men from villages along the river, but the Ovambos were so unpleasant that we preferred to keep to our own people and steer our own canoes. There was no monotony in our journey, for if the eternal reed-fringed banks were changeless in their dress of white-topped green, the scenery alternated between grass flat and acacia-covered hillside, while here and there were beautiful palms, giant wild figs, and to the south baobabs. In the 200 miles between Kwangar and Diriko we passed twenty to thirty rapids, besides innumerable islands, submerged rocks, and reefs ; no tribute, I fear, to the navigability of the Kubango, if adding undue exhilaration to what might have been a long and monotonous journey. Here, as higher up the river, it was not surge and rapid alone that had to be feared, for on rock and sandbank, and even among the reeds, the head or ridged back of a crocodile showed us what might be our fate if the canoe upset on the rocks and we were swept on to the pools below them ; while the numerous hippo-tunnels in the reeds were reminders that this other danger of the river did not always wait for the river itself to bring about disaster, but could destroy canoe and man with a snap of enormous jaws. Just below Diriko, at the confluence of the Kwito and Kubango, six canoes and several natives had been destroyed by attacking hippo, and so great is their dread of these giants of the river, that many natives will only pass this confluence in daylight, and if possible in company with other canoes. I had always refrained from killing hippo, usually inoffensive beasts if unmolested, but on the Kubango, owing to constant molestation by man or some other cause, these quaint beasts have become a danger to navigation and must be destroyed.

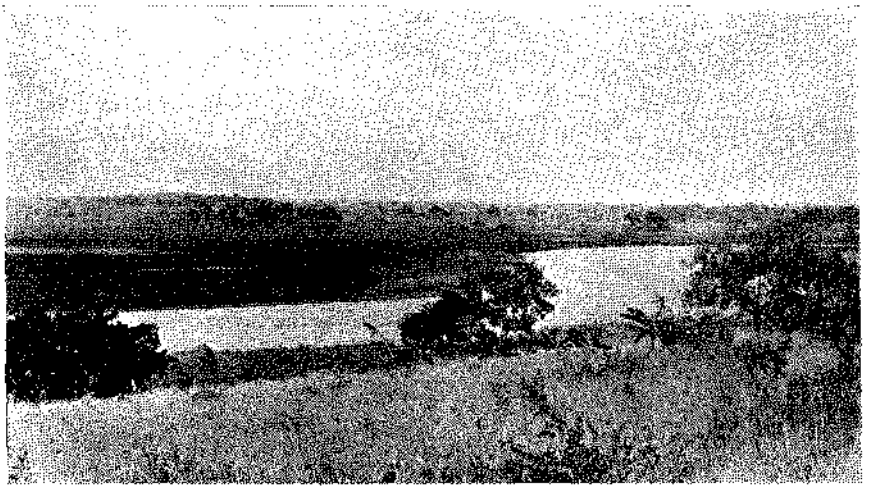
Of the tribes of the lower Kubango valley, the Ba-Kwangar included the subtribes of Bunja and Sambio. The people north-west of the Kwito were under a chief called Niangana. South-east of the Kwito junction were the Mambukushu or Libebe's people. Below Kwangar, where the river divided Portuguese from British territory, nearly all the people were on the British side, having left the Portuguese or north bank of the

river in the last few years. Even above Kwangar the native population had been scarce, and we had only passed a dozen villages in our journey there from the Kunene, but below the post, Portuguese Angola was a human desert. We made many inquiries into the cause of the great migration and received many replies. The Portuguese gave the reason that the British, in order to obtain labourers, induced the people away with promise and hope of wealth; the Germans put it down to bad government of the Portuguese; while the natives, when questioned, said they were better paid on the English side. As neither Government inflicts any hut tax on the natives of the river, it was no fear of these taxes which has brought about this immigration, nor does the Portuguese system of conscripting soldiers affect it, as soldiers are not conscripted from the Kubango district of Angola. There is no official or systematic ill-treatment of the native by the Portuguese, as I have proved to my own satisfaction after much journeying through Angola. The main cause of the emigration is, I think, the economic factor, the attraction of payment in a more valuable coinage than the Portuguese escudo, and higher wages.

We suffered greatly from the unpleasant people of the Kubango, for from Kwangar downwards little help could be obtained to guide us to game, and although meat was given, its receipt was unaccompanied by any signs of gratitude. Food was sold at extortionate prices if the natives believed that our need was great. Help in need was grudged or refused. When the river became especially difficult, rapid succeeding rapid, submerged rock to sandy shoal, and one of our canoes after another had jammed on the rocks, we were forced to seek help, which was offered at a price, a bargain struck in a moment when our possessions were in danger of being swept away and lost. The further south and east we went the more detestable the native character appeared. Near the Mission of Njaro the venerable and kindly looking old chief Niangana had caused the murder of more than a dozen white men and women in his earlier days, rivalling the record of the chiefs of Andara or Libebe still lower down the river, where we camped in weary waiting later on.

Below Kwangar the river flowed through more open valleys, the rapids became less, and the open stretches of deep water were frequent, which was very fortunate for the untried canoes and boatmen. We covered 12 miles on the first afternoon, camping just above the Stopago rapids, in a country the natives called Nankutu. We had passed only seven rapids of all kinds, but near our camping-ground the open flats of the Kubango valley were intersected with many confusing channels. The country was sometimes wooded, with open and light forest; at others it had the appearance of a bush steppe, and here and there were flats which were obviously under water during the rainy season.

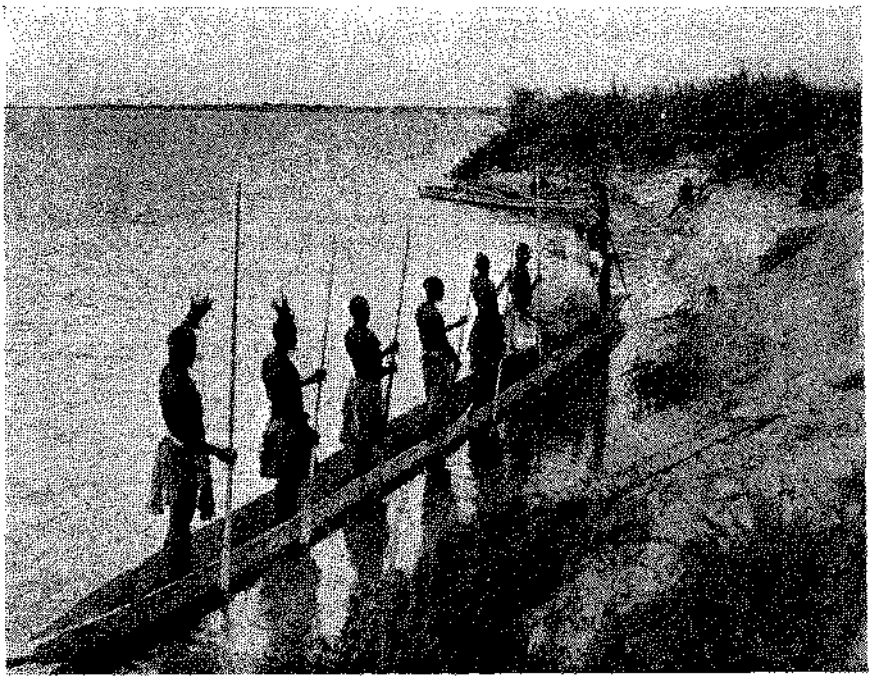
There was little game; no animals were seen, though spoor of reed-buck was found in the flats and that of duiker in the forests. On the second day of our journey what had appeared but a minor rapid nearly



KWITO RIVER AT DIRIKO

MAMBUKUSHU WOMEN

RAPIDS ON THE KUBANGO ABOVE LIBEBES



MEETING THE MAROTSE CHIEF LEWANIKA ON THE ZAMBESI

MRS. STATHAM AND BAMANGANDO THE RAIN-MAKER

brought us to grief; for three of the canoes went on the rocks, and my wife and myself found ourselves in the water. We managed to save nearly everything, though a good many of the loads were damaged by the wetting they got.

We stayed at an abandoned Portuguese post called Bunja for four days for rest and food, as game seemed plentiful, and included a small herd of buffalo. Below Bunja, which we left on July 25, the river continued to wind sluggishly through open valleys and grass flats, but what we lost in picturesqueness we gained in peace and security, for it was a delightful change to float with a feeling of comparative safety down this section of the river, where rapids were absent and rocks rare. In the stretch of river above Bunja there had only been three or four rapids, and in 30 odd miles below the abandoned post of Sambio there were only three in all: for the Kubango, a wonderful stretch of navigable river.

With our arrival at Bunja we had reached the centre of the land of the Ba-Kwangar, a people who lived on the left bank of the river till the Portuguese invaded the country and defeated the chiefs, who crossed the river with their people and remain there to-day, leaving the Portuguese bank deserted. During the last four days we had seen but one or two villages on the Portuguese side, while on the British bank these quaint mat-built villages were everywhere, many of them obviously only used in winter, when water was scarce except near the river; for on its right or southern bank the Kubango has scarcely any perennial tributaries.

The Ba-Kwangar dress in skin aprons, and long-bladed knives are often carried in the leather girdles of the men, and small antelope horns filled with snuff round their necks. The women wear skins and girdles as well, bangles round the ankles and arms, ropes of beads and ostrich-shell beads round their heads and necks and in the hair, which is usually twisted into fine plaits, lengthened by entwining them with vegetable fibre or beads.

Animal and bird life had increased as we went downstream; there were more roan and kudu; tsassaby and pallah (the common variety) were found in suitable places, and reed-buck and oribi were common. We came across a few steinbuck, and I saw what I took to be a reddish-coloured dik dik. A dozen miles south of Bunja we met "songwe," the Angolan Lechwe, again. At Bunja and between it and another abandoned post at Sambio we met traces of elephant and buffalo, and at Sambio saw a good deal of game, including wildebeeste.

As there has been an almost equal richness of antelope-life at the other abandoned post of Bunja, it is possible that the remains of the old plantations may have been an attraction. The bird-life south of Kwangar had been more plentiful, owing to great numbers of fish in swamps of the more open parts of the river.

We stayed three days at Sambio, which consists of two or three abandoned square huts but no attempt at fortification as at Bunja. Here

we killed a kudu and two tsessebe for food, and, having dried and cured the meat, pushed on down the river, which was reported to be more difficult and even dangerous to navigate lower down. We soon had all the difficulty and danger we feared, for 5 miles further down we met the first of the rapids, and within 8 miles had to navigate as many more without the help of any local canoe-men that knew the river, or expert paddlers to take us safely past its dangers. We nearly lost our own canoe in the maze of rapids and islands above Ntjarara, and suffered terrible anxiety in watching the two other canoes and the iron boat bumping their way through the swirling waters. The shallower rapids were not so dangerous, because from them we could probably have recovered our property, but in the deeper swirls the current was so strong, and in the deeper pools the depths so great, that anything which had been swept by the one into the other would never have been recovered, and some of us would have had a hard time to escape drowning.

As examination showed the river below Ntjarara to be continuously difficult for some miles, local aid was sought and obtained at an exorbitant price of 2 yards of cloth per paddler to steer the boats to Diriko. As a matter of fact we had only about 12 miles of difficult river voyage before we reached the deep clear stretches above the Kwito junction at Diriko, but it was a pleasure to watch our cheery villains of new boatmen, standing up to steer through swirling waters and black rocks, when our own men were crouching over their paddles, and obviously afraid. Once we were within an ace of disaster to our own canoe, which took the wrong passage, swept down between two rocks, and just bumped a submerged rock, the canoe being swept round and heeled to the surge of the water.

We arrived at Njaro German Mission Station on August 2, and at Diriko fort, placed on a cliff above the junction of the Kwito with the Kubango, the next day. The two Portuguese officers of the post received us most kindly, and told us that there was a good deal of game higher up the Kwito river. I decided to explore at least its lower reaches, while my wife rested at Diriko. The Kwito rises some hundreds of miles away in the Kwioko country. I had been within 60 miles of its source on my last journey in Angola, and was now watching its great flood of water, a deep stream some 40 yards across, pour itself into the Kubango, 500 miles from where it had started a tiny stream. In long stretches, one of the most navigable of rivers, it flows for the most part through open and often grassy valleys; but three or four times in its course, and for the last time 30 miles above Diriko, waterfalls break these stretches. The natives told me that this last fall was about 30 feet high. In its course, the Kwito passes through the lands among the Kwioko, Lushaze, Wachiwakee, Ambuella, and Ba-Kwito peoples.

The game of the upper Kwito consists mainly of roan and lechwe with reed-buck and oribi. Down near the mouth, and in the lower stretches, were elephant buffalo, rhino, and zebra among the bigger

animals, with sable, roan, wildebeeste, tsessebe, reed-buck, oribi, duiker, and steinbuck among antelopes. From the fort one could see a great stretch of country, and with the eyes alone, and of course more readily with binoculars, game was always to be found on searching. I believe that even lions have been seen in the early morning and late evening, moving after game or water, on this great plain which stretched for many miles along the left bank of the Kwito.

We reorganized our expedition at Diriko, sending all our loads of animal collections back up-river to Kaiundo with the men who were returning there; only the plant collection, a few animal specimens, and bare necessaries were carried on, as the river was reported increasingly difficult, and the canoes could only be lightly laden. The iron boat, which could never have survived the rapids ahead, was exchanged for a canoe. We came to some rapids near N'Dukoro island where the grey wacke zone of underlying rock comes to the surface, and near an island called Gangongo we saw a village which I was told was that of Bamangandu, who claimed to be the rightful heir to the chieftainship of the Mambukushu tribe. It was the first village of these people, that we were to get to know so bitterly well in the weary days at Libebes, and the terrible march across the sand-belts of the northern Kalahari.

The country of these Mambukushu extends along both banks of the lower Kubango, and between it and the river Kwando. Their chief village is on Tahoe island, near the Portuguese–British border, and the base of the Caprivi Strip. These people are said to have been among the earlier inhabitants of the country near the junction of the Kwando with the Zambezi, where they quarrelled so much that the Makololo chief, Sebituana, who had just conquered the Barotse valley, sent them further up the Kwando river to the swamp region called Mashe, where they settled and became the Ba-Mashe; to move again still further south to the Kubango river, making their first headquarters at Sibanana, one of the many islands in this portion of the river, Tahoe being another. Others consider they are allied to the Ovambos, whom they certainly resemble in appearance and habits. Libebe was the first of their chiefs; Libebe Andara, who is buried on Sibanana, the second; another Libebe, who probably poisoned his uncle, the third; and Lisho, who it is said murdered his predecessor in 1915, the fourth.

The Mambukushu and their chiefs suffer from a bad reputation, and have been condemned in the strongest terms by the few travellers—Schulz, Gibbons, Goold-Adams, Matabele Wilson, Streitwolf, and Seiner—who have met them and described them as treacherous, unreliable, cowardly, lying, and dishonest. Our experience fully confirmed their opinions, for Lisho, their chief, took advantage of our need of his help to extort an ever-increasing number of presents from us, while the carriers whom he had supplied on an advanced payment to take us to the Kwando, deserted us halfway, and curiously enough just where Goold-

Adams had been deserted by these people many years before. The worst sufferers at their hands were the Boer hunter Van Zyl and his wife, the husband being shot, and the wife blowing herself up with her baby, waggon, and a number of the scoundrels who had come to rob and claim her.

The Mambukushu chiefs are renowned rain-makers to whom even Lewanika and Khama appealed for rain. The rain medicine is said to contain the blood of a baby killed for that purpose. The hair is usually cut short in the men, and shaved over the forehead; by the women it is worn in long plaits, twisted well back, and occasionally with beads or small ostrich discs. The dress of both sexes is an apron of skin or cloth, suspended from a girdle and drawn between the legs, to be attached to the girdle again behind.

The Mambukushu are expert canoemen, for their chief village is on an island in the Kubango, with cataracts on every side, and all the river up and down for 20 to 30 miles is so rock-strewn and rapid as to be dangerous. To see them standing up in their canoes, plying their long pole-like paddles, and to watch them balancing long slender canoes with almost effortless grace, is to admire unpleasant people in spite of oneself.

Our last day's canoe journey was unforgettable in its scenery and sensations. The 15 miles of river between our last camp and Libebes was so continuously dotted with islands, and strewn with rocks, that every mile found us rushing past a reed-bank on one side, and a dark red reef on the other, or between two rocks of a reef where there seemed no possible passage in the river.

Libebes to the Kwando River.

While waiting at Libebes, where we arrived on August 9, we questioned the natives on the possibility of a further journey down the Kubango, and the nature of the country and water difficulties of the alternative route between the Kubango and Kwando. All the information I could gain as to the dangers of the lower portions of the river warned us against carrying out my original intention of continuing the canoe journey down the Kubango and by one of its channels, the Magwekana, to the Kwando, and then by the Zambezi to the Eastern Ocean, a plan which meant the navigation of the entire Zambezi system.

The Kubango was, I found, increasingly difficult below Libebes, and the falls at Popa, 15 miles down river, were 15 feet high. It was true that below the Popa falls the river was again navigable, but it was sluggish, swampy, and increasingly reed-choked, till the old connecting channel, the Magwekana, between the Kubango and Kwando, was reached. This watercourse, which some regard as the old bed of the Kubango, and others as an old spillway when that river joined the Kwando, is now rarely, if ever, navigable, and must tend to become shallower each year, with the silt of the muddy flood waters of the

Kubango, which still overflow into the Kwando at the end of the rainy season. The Magwekana was reported quite unnavigable, if not dry. Could we even reach the Kwando in safety, it would, we heard, be very difficult to continue our canoe voyage down this river, which becomes a tangle of almost impenetrable reed swamps. Apart from the navigation difficulties of any canoe journey down the lower Kubango or Kwando, were the dangers of the hippopotami which infested the marsh-like courses, and the millions of mosquitoes which buzzed above them, which Wilson has described as so numerous as to extinguish a candle with their myriad flying forms.

The alternative to this journey down a rock-strewn river, a drying-up old river-bed, and a mosquito- and hippo-infested swamp, was a 300-miles march across the northern Kalahari and over thirsty sand-belts to, first, the Kwando, then the Zambezi, where we would continue the canoe voyage. Before definitely deciding for the desert march, and against the river journey, I spent the week we stayed near Libebes examining some of the reaches of the lower Kubango and obtaining information as to the people and possibilities of the Kubango and Kwando swamps. My wanderings took me down the Kubango and towards the Popa falls. At Sibanana island, which we overlooked from Mukussu, and where Andara the first of the Mambukushu chiefs is buried, began the most striking portion of what has been called the "Gray Wacke" zone. For hundreds of miles the Kubango valley consists of sandstone overlain with sand and the primary rocks are practically never seen on the surface, but from above Libebes the Kubango passes through a zone of reddish-grey, grey wacke which has outcropped through the overlying calcareous and silicified sandstone beds.

The stretch of the Kubango between Libebes and the Popa falls is wonderfully picturesque. Everywhere are islands and rocks with foaming water in between, and the islands are so beautifully wooded, and the reddish rocks so jagged and quaint in form, whether in strange blocks or queer-shaped ridges, that this would be a painter's Paradise were it possible ground. What I had imagined of the Kubango was fulfilled in the beauty of the scenery, and unfortunately also in the impracticability of any further journey by canoes. We could of course have walked to below Popa, but I could not obtain any clear information as to the certainty of obtaining canoes or carriers lower down the river other than the small dugouts of the Makobas and Tannakwe bushmen, which were unfit to carry more than one passenger and one cargo-load.

This Tannakwe branch of the Bastard bushmen are a timid people, resembling Bushmen only in their features and speech, for their bodies are long, as are those of most swamp dwellers, and the arms developed at the expense of the legs. We could never have relied on such a timid and suspicious race nor on the Makobas to provide our requirements in carriers and canoes on the difficult reaches of the lower Kubango.

The desert march was now decided on, and we found that there were at least three routes from Libebes across the 200 miles or so of sand-belts, directly between the Kubango and the Kwando rivers. One going through the Caprivi finger, and another to the north of it, are but wet-weather routes, when the numerous intermittent watercourses contain pools of water; a third route further north is just possible till the end of August; later than this, in dry years, the natives stated that the safest way to reach the Kwando was to go first north-eastwards to a point on the Loengi river some 30 miles from its junction with the Kwando. The Mambukushu and Hukwe guides estimated that the journey by this route, which we decided to adopt, would take thirteen days.

We started on the seventh day of our wait at Mukusso, but it was impossible to leave even then without giving Lisho, the Mambukushu chief, final presents, in addition to the large number he had already extorted from us, and leaving the payment for the carriers with him.

The first day's trek showed the worthlessness of these men, who only succeeded in taking our loads, weighing 50 lbs. each, 9 miles, and declared that the first two water-holes of Kapungo and Shire, which proved to be 19 and 32 miles respectively from the Kubango, could not be reached in less than four days.

Up betimes to counter these delaying tactics, we continued the march north-eastwards for some 10 miles, halting at a large pan, where there was now but a little black and smelly water, obtained with difficulty by scraping away the sand from the bottom of a hole made in the pan. The conduct of our carriers on the first day's march had made me suspicious of their good-will, for they straggled continuously, tried to fall out of the line, and kept complaining of their inability to march without food, though they found a great abundance of "Mabula" plums and other forest foods on which they had been living for many weeks past. I did my utmost to procure food, leaving the path constantly to find game in the adjoining forest, but game was very scarce, and except for one eland bull of which we caught a fleeting glimpse, I never had a chance of killing a buck. The country round the Kapungo pan was also explored for game, and drinkable water, but neither was found, and the spoor, though it included that of giraffe, was scarce and several days old. On Seiner's map a pan is shown about 20 miles north-east of Libebes, which he calls "Korn pfanne," and which is probably that known to the natives as Kapungo. Here he found game and abundant bad water in August 1906, and here Goold-Adams met abundant game and a clear spring of running water in August 1896, while Schultz and Hammer, the first Europeans who passed through, at the end of August in 1884, found game abundant, and spoke of several large pans of water, at the same time of year when we found but a little filthy water and practically no game; evidence which corroborated the statements of the older inhabitants that the rainfall was getting less and the country steadily

drying up. At Kapungo we realized that there were other difficulties besides bad carriers. The track was over heavy sand, white when pure, yellow and brown when mixed with clay or alluvial, in the murambas, or shallow intermittent watercourses. The whole country is channelled by these numerous broad, shallow depressions, running south-east, roughly parallel to each other, and apparently towards the Kwando swamps. The formation is remarkable, suggesting an earlier and immense water contribution to the south-east, and possibly connected with the filling in or draining of that one-time great inland sea now the Kalahari desert. Towards the Loengi the murambas were less frequent, and we missed the blessing of the firmer soil which their alluvium provided, for the deep sand made walking exhausting.

The scarcity and badness of the water and my suspicions of the reliability of the natives decided me to abandon the longer north-east route to the lower Loengi, and march to its nearest point, which the maps showed us was only five days' march away. I marched a little east of north, in the belief that in that direction lay the closest point of the Loengi, hoping that some faint waggon tracks, which we discovered going northwards and were informed were those of a Boer waggon which had passed long before, were leading there. Wherever these tracks disappeared or went very wide of my proposed route I searched till we found them again, and it was fortunate that they always returned to the line of my proposed route. I wanted to follow these tracks because they gave us a direction and made me independent of unreliable native help, while I knew what marching by the compass alone would mean in this waterless bush. The tracks had been made long before and apparently in the rainy season when water was plentiful, and might have led me to where there had once been water and was none now. I dreaded lest my proposed direction and the waggon tracks should not coincide. Fortunately the tracks held to our direction, and 9 miles north from Shire pan they brought us to the dried-up pan of Kamuhoka, and 2½ miles further on to another, which one of the natives called Shu Shu. Now a pan with a similar name had been found by Goold-Adams in this neighbourhood seventeen years before. The native names for the pans vary with their languages, Mambukushu or Hukwe, etc., and for this reason and apart from native lying and unreliability, a water-hole may have at least two names, yet I felt cheered by the sight of the Shu Shu pan, dry though it was. Not far from Shu Shu pan was another called Didimbo, where Goold-Adams had taken a latitude of 17° 26′, and I tried to march there, but no one knew of Didimbo, and we never saw or heard of it on the route.

Two and a half miles beyond Shu Shu we found a pan, dry, it is true, but where the reeds were slightly greener, and I would have camped there to dig for water, when the natives, who had hitherto denied all knowledge of the route, said that a better chance of water lay at Likutu,

5 miles ahead. We continued the march and arrived at Likutu at sundown to find a 4-foot hole in the sand, but no water till we had dug another three, and then only a little soupy fluid. We let the boys have all this, and then cleared the mud and waited for the water to collect during the night. Long before daybreak the next morning an intense thirst drove me to the waterhole to drink, and fetch water for my wife, but we found the water-hole dry and the footprints of a bull giraffe beside it, though how he got his long neck down the 7-foot hole I do not know.

Having failed to coerce us to their own road, perhaps their own ends, on the first three days of the journey, the carriers still continued to play the delaying game the next day. Loads of 50 lbs. which had been readily carried all over Angola (the regulation load is 65 lbs.) must, they said, be carried by two men. By casting some loads and trophies this difficulty was overcome; but even so these Mambukushu would never move unless I came back to urge them. They flouted my wife's authority, and her distress was a source of amusement to them when I was not there. Only by a further sacrifice of all attempts at map-making, and by moving up and down the line, were the Mambukushu still pushed ever northwards, and towards the good water which we now knew could alone save us. As a last resource, the carriers pretended to fall down from weakness and want of food. That there was some famine in the land was undoubted, but the Mambukushu had been living on Magondo, M'Shibi, Mabula, Mabok, and other kinds of forest food for weeks past, were in good condition, and had more of this forest food on the march than at home. An unfortunate injury received in saving my dog from a wounded roan antelope added to our difficulties, but I was able to continue travelling, though in great pain, and succeeded in conducting the party for the next two days, and until near the Loengi, where I fell down from pain and exhaustion, and was carried to the river.

Of the eighteen carriers who started with us from Mukusu, I had hoped that the four Bastard bushmen of the "Hukwe" or roan antelope tribe, who gave less trouble and were the most useful in finding water and game, would prove reliable, but this was not the case, and they deserted us later on along with the Mambukushu to whom they are subservient.

These Hukwe, who live between the Kubango and Kwando rivers and are usually called Makwengo by the Mambukushu, and Mosarwa by the Marotse and Masubia, are as tall as the Bantus, and only their reddish-yellow colour, slanting eyes, small hands and feet, and clicking speech betray their partly Bushman origin.

Water is so precious to these people that they will keep its presence a secret even when those with them may be dying of thirst. They will pretend there is no water near, and that they do not need any, when they are really satisfying their thirst secretly, perhaps at night. This callousness seems dreadful till one realizes the treatment they receive from their Bantu neighbours, who steal their children, their weapons, and any of

the miserable chattels they may find in a Bushman encampment. These people are not brave, nor are they really good fighters, so that flight and cleverness in knowing and hiding in the forbidding desert country are their only chance of security. The bush to them is an open book; its game and the edible fruits and roots of its plants their only food; no wonder they will travel miles to reach some spot where the Mabula plum is still bearing, or some other fruit or root is approaching maturity.

The day after we reached the Loengi, Lisho's men deserted, taking all the meat supply of the camp. They deserted us on August 23, some 7 or 8 miles below where the Utembo joins the Loengi, at a village called Monkoyas, where there was a small Portuguese post with a couple of Askaris, who tried to help us to obtain more carriers. I made two attempts to reach Monkoyas and the river junction, but was too ill to complete the journey.

By the inducement of good wages, and through the belief that I was a Portuguese official with good authority, we collected enough carriers to take some of our loads, the others being left behind in the forest to be sent for as our retinue increased. Our other difficulty was the scarcity of food; grain was unobtainable, game was scarce, and the pain and physical weakness which affected me made hard hunting impossible. It was imperative, however, to obtain meat, as this is the hope and guerdon of every Mambukushu, for which he seems to think, work, and dream. Faint-heartedly scratching the smallest possible area of soil just before the rains, he trusts to Nature's tropical bounty to give him enough cereal food for his bodily necessity, the while he slaves to satisfy his hyena-like appetite for flesh by making snares, pitfalls, and falling traps for game.

Near a village called Yomba we had a mutiny among the carriers, who refused to move farther east. Paid and fed well, they had no reason for this refusal except the ingrained sloth and cussedness of their race, and I had no compunction in taking their spears and axes and forcing them along the path they had once promised to guide us, until at least they could find other people to take their places. My wife, myself, and the two Askaris took posts at intervals in the marching line of twenty men, who very soon saw that we were not to be continually trifled with, and after being watched and guarded for a day and night or two, they not only became reconciled, but joyfully helped us to find other carriers who could replace them. At Likoma, which we reached after a 16-mile march along the river, I found the first village marked as such in my map, and the chief, a man of about seventy years, gave me some very interesting information of the country and its villages. In a land where a village shifts every few years, and the headman after whom the village is called dies, naturally or with help, at almost equally frequent intervals, no map dependent on village locations can remain even approximately accurate. Only one of the mapped villages ahead of us

still existed under its former name, and even this one had changed its location. The chief told me, among other things, that from his village to where the Loengi joined the Kwando was four days' march, and there was a white man living at this point, and two others three days further south along the Kwando. Of the game of the country there were still giraffe, zebra, eland, wildebeeste, tsessebe, lechwe, reed-buck, duiker, and steinbuck; a few black rhino "Fume" were to be found, but of the white variety, the immense "Gava," none had been seen for many years, and it is doubtful if any survived. Likoma had killed some in his youth, and well knew these quaint and clumsy forms, with their long front horn, square mouths, immense bulk and comparative inoffensiveness.

Some lions had killed a bull giraffe a few days before our arrival, and the highly scented remains of its skin and bone, and what was left of the meat, were stewing in the fleshpots of the village.

The valley of the Loengi continued to increase in width, but kept most of the features which characterized it 30 miles further back; and the bed of the stream retained to an increasing degree its extraordinary tendency to meander. In this great valley, 2 to 6 or more miles wide, the tortuous reed-fringed stream, but 3 or 4 yards across, flowed very gently. The slopes of the valley were pretty, with clumps of trees growing on slightly higher ground, while running roughly parallel to the river, and often indistinguishable from it in appearance, were numerous reed-fringed lagoons, and the lower Loengi or Luiana continued like this to its junction with the Kwando.

At the junction we met a Greek who had a store, and who lent us a small waggon to continue our journey down the Kwando. We followed this river, which flows in an open flat valley to near Sepango just north of the northern boundary of the Caprivi strip, where the country becomes undulating and the river-banks steep. Here we met another white man. Since our return home these two lonely men have fought, and one has been killed, the other wounded.

From the Kwando to the Zambezi and the Victoria Falls.

A canoe journey down the Kwando being found impracticable, it was our unfortunate necessity to traverse the Caprivi strip as the only available road to the Zambezi. There are several routes across, between the Kwando and Zambezi, and most of them terminate at Moody's, 6 miles below Katima Molilo rapids. Two of them to the north, entirely or partially in Rhodesia, are not practicable at the end of September in a dry year. At this season it was necessary to pass south to Sekossi's old kraal, travel south-east and then north-east by a route where water was yet obtainable, and even here the natives said water was not found between the Kwando and Sebindi spring, near Malindi pan, and some 40 miles by road from our starting-point. All our water for this journey had to be carried

We entered the Caprivi strip when we passed south of the Kimbashi tributary of the Kwando near where Mbala's village is marked on the map. Three miles further south was another and much larger water-course now nearly dry, the Lublainga, which joined the Kwando where a little Sekossi village once stood, and just north of where Sinjenda is marked. From here for 40 miles eastward was the waterless stretch. The Lublainga means, I think, "the place of the killing," for native tradition says that in this arm or tributary of the Kwando were once, in the days before the droughts, a great extent of water, reeds, and numerous hippo. Vast numbers of these hippo were killed by spearing them with iron barbs to which a rope and float of light wood were attached, which showed the position of the wounded hippo when submerged. When the enraged and harried hippo were driven ashore, they were speared to death with assegais.

On the second night we camped 27 miles from the Kwando and near one of the big Murambas or river-beds which appear to run towards the Chobe section of the Kwando, but were fewer though larger than those seen between the Kubango and Kwando.

From Malindi pan we marched northwards along a Muramba which appeared to run from the north-east and the Zambezi, south-west towards the Kwando. The pans on this march were Getsi and Katongo, and we also passed two villages, but as the unfortunate people move constantly to be near water, a village is a dangerous signpost to give any traveller in this part of Africa. The next day we camped at M'batcha pan, passing that of M'beha on the road. There were two other villages near here, Musukowera and Musokopeka, and the path still seemed to follow in a Muramba running from north-east to south-west. From M'batcha pan a march of over 20 miles brought us to the Zambezi.

Some 10 miles from Malindi the country opened up into park land. Green shoots were struggling through the charred stalks and ashes of the late grass fires; the trees wore their dress of spring, and game was fairly plentiful again. Beyond Malindi pan began the area of Mopane forest—that widespread curious plant which grows from so many stems, yet never forms a thick forest owing to the interval between individual trees, and yields so little shade because of the upright position of the leaves. Fringing the Zambezi in the undulating country near Katimo Mollilo were great trees, but further downstream such trees were far from the reed-covered banks, which are under water for part of the year.

The soil between the Kwando and Zambezi, as between the Kubango and Kwando, had been sand, heavy when pure, usually harder when mixed with clay and alluvial soil; for all this belt is geologically but a portion of the great Kalahari formation, sand over sandstone and lime-stone. We first met the sand near the Kunene, and lived in it for months and over 1000 miles. We bade good-bye to it near the Zambezi, and shed no tears at the parting.

Our further canoe journey was uneventful, for we obtained a canoe barge and a dozen skilful Marotse paddlers at Katima Molilo, who took us down the 100 miles of river to Katimbora in two and a half days, and through the Mambova rapids near the Zambezi–Kwando junction with the ease born of wonderful skill. The sense of security and the monotony of the flat reed-fringed banks were a relief after our hazardous canoe journey and weary marches, and the Zambezi was too well known to study afresh. The 40-miles journey in a large waggon drawn by sixteen oxen from Katimbora to Livingstone and the Victoria Falls was an equally pleasant contrast to the anxiety and fatigue of guiding our little two-wheeled waggon through the roadless forests of the Kunene and saving it from continual threats of disaster.

Before the paper the PRESIDENT (the EARL OF RONALDSHAY) said: For the opening meeting of our session we have turned once more to that fertile field of travel and exploration, the Continent of Africa, and we have been fortunate enough to secure as our lecturer Colonel Statham, whose knowledge of many parts of Africa, and particularly of Portuguese West Africa, is well known. He will conduct us this evening for some fifteen hundred miles from Mossamedes, a port in the south of Angola, eastward across the heart of Africa until he drops us at the Victoria Falls. I am not quite sure what the particular object of Colonel Statham's journeys has generally been, but I rather suspect that a not unimportant object is the hunting of wild game, for I happened to learn, incidentally, that in the course of his travels in different parts of the world he has had violent encounters with wild animals on no less than three occasions. He was mauled on one occasion by a bear in India; he was run over on another occasion by a rhinoceros somewhere in East Africa; and on the journey which he is to describe to-night he had the misfortune to be knocked out by some form of African antelope who was in the process, I understand, of killing his favourite dog. No doubt Colonel Statham, who is a scientific man, having been for many years a member of the R.A.M.C., kept the eye of the scientist open as well as that of the hunter, and he will have much to tell us to-night of an important problem which confronts those interested in the country over which he travelled, namely, the gradual drying up of the series of rivers which run north and south in that part of Africa and which now, I believe, practically lose themselves in the Kalahari Desert. But you will desire to hear of all these things from Colonel Statham's own lips, and I shall not stand longer, therefore, between you and the lecturer.

Colonel Statham then read the paper printed above, and a discussion followed.

The PRESIDENT: There are very few who are competent to say anything at first-hand on the subject of the lecture to-night, but by far the greater part of the territory which has been described to us lies in Portuguese Africa, and we are honoured to-night by the presence of His Excellency the Portuguese Minister, Senhor de Bianchi, and we should be grateful to him if he would say a word or two on the lecture.

His Excellency the PORTUGUESE MINISTER (Senhor V. A. de Bianchi): Besides the geographical, historical, and scientific interest in this lecture, which I appreciated immensely, there is one point which impressed me very much, namely, when Colonel Statham said that he had received from all the Portuguese