My Student Elective

An expedition across the Okavango

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The Okavango Swamp is an enigma. The term "swamp" is misleading, for the Okavango is more. It is a huge inland delta of 15 000 sq km; three-quarters the size of Wales. Its source, the Okavango River, is born in the Angolan Highlands far to the north. Despite the comparative proximity of the Atlantic, the river strikes out in the opposite direction across the African continent towards the Indian Ocean some 3000 km to the east. The river is destined never to reach an ocean or sea. In the wilderness of the Kalahari desert in northern Botswana the river branches into the maze of channels and lagoons that make up the Okavango Delta. The waters flow no further. They evaporate or seep into the dry sands of the Kalahari, but in their wake they have left a lush wetland teeming with fauna of every description.

Gateway to the delta

I was the medical officer and one of the ornithologists on a five-man expedition that set out to travel the full length of the delta from the branching of the river to Maun, a village on the eastern edge of the delta. We were to travel by "mekoro" or dug-out canoe, the only feasible mode of transport off the main waterways. The country is flat with few distinguishing features and our navigation would rely heavily on the knowledge of our hired mekoro men. We had assembled in Johannesburg and drove from there across the rolling farmland of the northern Transvaal, crossed the border into Botswana at Mafeking, the scene of the great Boer War siege, and ventured into the central Kalahari. Several days later five dusty creatures emerged from the Makadigadi salt pans in the north of the country and drove into Maun, a small but cosmopolitan village. It is the home of many of the Herero tribe. Once refugees from a war of extermination in Namibia, they are now wealthy cattle owners. Their women wear dresses and headgear in a style inherited from nineteenth-century German missionaries. Maun is the gateway to the delta for the trickle of tourists and hunters who visit the area each year.

We left our vehicle in Maun and were flown to our starting point at Seronga, on the Okavango river. We flew low to sight any large concentrations of game and in search of bird-breeding colonies. Soaring vultures were a hazard that our pilot was fortunately skilled in avoiding. Man has so far left little mark on the land. The earliest inhabitants of this area were the Bushmen, the diminutive aboriginal people of Africa, who have been in the Okavango for an estimated 150 000 years. They were never ones to change their surroundings; they were part of the landscape. The earliest innovators were the Bayei tribe,

who arrived in the mid-eighteenth century on the first wave of a huge southward migration of the negro Bantu peoples. They built villages, papyrus rafts, and canoes, and they herded cattle. After them came successive waves of Bantu, often destroying or assimilating their predecessors as they swept south. The first white visitor reached the southern edge of the delta almost exactly one hundred years after the arrival of the Bayei. His name was David Livingstone. Livingstone dared not venture far into the swamp for fear of the especially deadly local malaria, now known to be largely caused by *Plasmodium falciparum* producing malignant tertian malaria. Trypanosomiasis was and still is rife in the drier areas. The mosquito and tsetse fly have long protected the swamp from man.

Medical hazards

All members of the expedition had undergone inoculations against cholera, typhus, tetanus, and polio, and passive immunisation for hepatitis. Our drug of choice for malaria prophylaxis was Maloprim. This combination of pyrimethamine and dapsone is ideal against the chloroquine-resistant strains of *P falciparum* found in the area. Unfortunately, there is no prophylactic against trypanosomiasis. Pentamidine has been used, but its effectiveness is dubious and it only confuses the diagnosis. Trypanosomiasis was therefore a particular worry. The only other precaution we took was the regular ingestion of garlic, said by old Africa hands to discourage all types of arthropod from biting. The idea is, I suppose, that the garlic is absorbed and deposited in the skin, which then smells so vile as to keep all the ticks, lice, fleas, and other insects at bay. Though the garlic did not prevent us from being bitten and I have a suspicion that in fact our arthropod infestations rather liked the taste, it certainly curbed our own hunger to some extent by giving us the impression that we had eaten more than we had.

Schistosomiasis was another parasitic infection for which there was no prophylactic treatment. Contact with the water was quite unavoidable, so one just had to be stoical. All members of the expedition were advised to be tested for this disease on our return. Fortunately, all these tests proved negative.

Journey in the swamp

Our landing at Seronga on a rough and inefficiently cleared stretch of scrubland caused a stir. A Danish doctor who appeared on the scene had thought we were making a crash-landing. He had been in the village six months and had no idea that there was an airstrip. From the crowd which had gathered around our aircraft, we recruited a gang of children to carry our baggage. The village headman, splendidly attired in a white topee, stepped forward and offered his arthritic claw of friendship. While explaining the purpose of our visit, we were led to the welcome shade of a large "monkey sausage"

tree, the village forum. Four men who were willing to hire their services and their mekoros were found, and then began the bargaining. Alistair Fothergill, the expedition leader, stated our plans and terms and these were translated by the only woman on the expedition, Liliias Graham, into a strange language that goes by the name of Chalapalapa. Finally a fee was decided and rations of maize meal, tea, sugar, salt, and tobacco were promised.

Soon after dawn the next day we began our six week journey into the swamp. We had paid off our youthful porters with boiled sweets, and balanced ourselves precariously at the bows of our unstable vessels. Our men leapt nimbly into the stern of the craft and punted us effortlessly across the Okavango river to enter a passageway through the thick papyrus beds. That

Travelling down the delta.

Through the thick papyrus beds in a mekoro (dug-out canoe).

night we camped on an island where there stood a huge baobab tree. Lawrence van der Post had reputedly camped here in the 1950s on his expedition in search of the Bushman. His time in the swamp had been fraught with disaster. In his book *The Lost World of the Kalahari* he describes his experiences here in a chapter entitled "Swamp of Despond." Like Van der Post, we too were forced to live off the land, for it was impossible to carry sufficient food for six weeks. We carried the same basic rations that we provided for our men, with our protein coming from fish caught in gill nets set each evening, and a very occasional supply of antelope meat. This diet was supplemented by any fruits, nuts, or vegetables growing wild that were pronounced edible by our men. We fed well, but there was always the nagging worry that we might go short.

Contact with the water was unavoidable. Leeches were always a nuisance, though not painful if removed by burning them with a cigarette lighter. Schistosomiasis was a more sinister threat and was said to be most common at the inhabited edges of the delta but it is gradually spreading to the interior. A more immediately fatal consequence of bathing or collecting water was being caught by a crocodile, of which there were rather too many. The deeper waters were the home of the hippopotami, who were a considerable hazard when travelling in the mekoros. Although our men were alert to this danger, there were several close calls with irate hippo bulls.

For a week we travelled slowly down the west side of the delta in search of a suspected colony of pink-backed pelicans, of which very few are known. Our aerial reconnaissance had sighted a colony on the edge of a lagoon, but all our attempts to enter this lagoon were rebuffed. An eight-foot (2.4 m) wall of thick papyrus a mile (1.6 km) deep barred our way. We sat on a tall termite mound and gazed towards the lagoon. As if to mock us, two pink-backed pelicans circled lazily on the thermals above. We turned eastwards to the interior of the delta and the Jao Flats, where the reed was short and there was little papyrus. The lagoons were bright with lilies just coming into flower. On a water plain close to our camp there were always red lechwe, often in huge numbers. These exclusively swamp antelopes were dominated by large bucks with magnificent lyrate horns. They were wary creatures, and at the first sign of danger would gallop across the plains in a curious rolling gait, sending up showers of spray. Birdlife abounded. In this region alone we saw over 160 species, among which was the slaty egret, an endemic water bird. Here too we found three of the rare Perl's fishing owls, huge, imperious birds which thrive solely off fish, caught at night.

It was here that a bevy of minor ailments had to be dealt with—infected cuts, deeply embedded thorns, conjunctivitis. Tom, our cameraman, suffered fearfully from the bites of a species of large grey horsefly. Antihistamines controlled the swelling that for some reason only he was subject to. Our only camp follower, a young Bayei girl, whom we had reluctantly picked up en route but whom we now employed for domestic tasks and for the use of her mekoro, cut her hand badly while collecting grass bedding and to the intense amusement of all, including the patient, the wound was stitched. Salishando, the leader of our men, then became very ill and began to pass mucus and blood-stained diarrhoea at a frightening frequency. We feared dysentery and methonidazole (Flagyl) was in short supply. It transpired, however, that Salishando had had bouts

Treatment for a sick Bayei tribesman.

of this before, and he also developed signs of a polyarthrititis. The diagnosis was changed to a tentative one of ulcerative colitis and he was treated with diphenoxylate (Lomotil) and large red vitamin pills as a placebo. He recovered, if only temporarily.

Although one is always warned of snakes in foreign parts, they are rarely seen, but in Jao they were unusually common. Two puff-adders, a black mamba, and a boomslang were positively identified, others were heard but not seen. We were equipped with eight 10-ml ampoules of a South African polyvalent serum for use if bitten by mambas, cobras, or vipers and prepared for the possibility of anaphylactic shock after antivenom treatment. A treatment of incision and sucking or immediate amputation should remain in the annals of safari heroes.

In cobra and mamba bites where the site of action is distant from the site of venom injection, tourniquet is first-line treatment, but a tourniquet is strongly contraindicated in viper bites, where the venom acts locally to cause tissue necrosis. Fortunately nobody was bitten by a snake.

Last of the Bushmen

We moved on south-east to the edge of Chief's Island, the largest island in the delta stretching 60 miles (108 km) in length. Here was the domain of the almost legendary Kekanamang. He and his sister are the last of their kind, the river

Kekanamang—last of the river Bushmen.

Bushmen. Kekanamang has had two Bayei wives and his Bushman features, an ochre-coloured skin, high cheek bones, and Mongoloid eyes are hardly apparent in his children and grandchildren. We were welcomed, fed, and entertained, and traded tobacco, vitamin pills, and Polaroid snapshots for a huge supply of smoked fish. We set up our camp on Chief's Island itself, a day's travel from Kekanamang's island. Everywhere were impala, buffalo, kudu, zebra, giraffe, and tsessebe. Salishando demonstrated his technique for dealing with lions met at close quarters. He let out a piercing war cry and ran straight at the creatures. To our surprise, but considerable relief, the lions turned tail and trotted off. On another of our long hikes we surprised a herd of about 300 impala resting in thick bush. The antelopes exploded into activity all around us. Dehawa nearly impaled Alistair with his spear, and in his fit of hysterical excitement flailed his axe like a madman and removed a large chunk from his own calf. He was carried back to camp and his wound stitched. The island was the base of squadrons of tsetse flies whose bites are exceedingly painful. Only a small proportion of the flies transmit trypanosomiasis,

A fish eagle.

but there are enough of these to have driven away the inhabitants of nine small villages and their cattle in recent years. The increase of trypanosomiasis has prompted the government to initiate a controversial programme of spraying with endosulfan. While the tsetse fly remain, the flora and fauna are safe, for they prevent colonisation by man with the inevitable consequences of wildlife destruction and overgrazing. From our own point of view, we had to avoid being bitten where possible, for there is no prophylaxis, and *Trypanosoma rhodesiense* can be a rapid killer. There was a slight scare when Alistair developed a purple, waxy papule on his leg, but no further signs emerged.

The final stage of our journey followed the Boro river and on our fortieth morning in the swamps we poled into a small camp on the bank of the Thalamanke river. We had returned to Maun.

The Okavango must be one of the last true wilderness areas in the African continent. It has so far defeated every attempt by man to change it. But how long can it survive? If the tsetse fly eradication programme is successful the influx of people and cattle will undoubtedly upset the delicate balance of the ecosystem. There is in addition a plan afoot to use the water of the delta to supply the diamond industry in the desert to the south. The days of the swamp may be numbered and the forlorn cry of a lone fish eagle heard no longer.

Terror with despair from Charles Bell's *Essays on the Anatomy of the Expression in Painting*, 1806.