things. There was an air of grandeur about Don João arousing admiration and respect for its very simplicity and the deep courtesy that he showed towards his guests. It was ancient hospitality and the ancient concept of the duties of a host to his guests, so different from our own ways. It was old Portuguese Matto Grosso that unfortunately is fast disappearing as the country becomes filled with peoples of other nationalities.

The principal guests ate first and when we had finished, we left the table. Our places were taken by lesser guests and the women. All this time the old blind Negro, dressed in a red shirt, barefooted, played for us, receiving due attention in the form of kind words, wines and food, very often taken to him by Don João himself.

In the afternoon we went to the valley of Falcão to examine the ground for archaeology. We made the trip by automobile, spending most of the time in mud holes. Finally we were pulled out by several barefooted red-shirted cowboys. We returned to Caceres, having learned the lesson that travel outside of the town itself was impossible.

This was another disappointment, for I gathered enough information to be convinced that this Falcão valley must have been a site of numerous aboriginal villages and cemeteries, and, that in all probability, under the surface there were quantities of archaeological treasures. We returned to the house of Don João for dinner. After dinner came the dance. All I remember of both is the rich ceremonial behaviour that contrasted so sharply with what was expected of us as Americans.

In Don João's house one room was set apart as a chapel. A little altar covered with beautiful cloths of lace and damask stood against the wall facing the door. On it were placed flowers, candlesticks, and a small lamp burned

incense. On the wall, over the altar, was hung a picture of Jesus and beneath it a crucifix. Pictures of the Virgin, and the Saints hung on the other walls. That of San Luis was prominently large. There was, of course, a kneeling platform, covered also with cloth in front of the altar. Family relics completed the furnishings.

No light entered this simple chapel except through the door, which, however, was kept closed most of the time. There was only the semi-obscurity of candle light, a coolness and quiet.

In this chapel, Don João led his family and servants in morning and evening prayers. It struck me as an enviable bit of patriarchy whose lack in our own culture we may well lament. It was reminiscent of the universal faith and family coherence of the past, refreshing to an individual of the twentieth century tired of skepticism and individualism. It recalled the early days when families who moved beyond frontiers perforce had to take with them all the culture they could, as old Portugal had been taken to this part of Matto Grosso by Don João's ancestors or fall back into barbarism.

San Luis de Caceres was at the time of our visit exercised over a new "saint", a living saint. The citizens were divided into those who believed in her and those who were neutral. Practically no one denied her outright in spite of the attack of the local priest who saw in the saint merely a sinful girl with a touch of hysteria.

It appeared that this girl, an unknown peasant renowned neither for beauty nor any other virtue was working in her father's manioc field one day when St. Joseph and Mary appeared and commanded her to raise a church in that very spot. She confided this vision to her parents as well as the fact that she was pregnant. She was believed and her pregnancy was interpreted as

another case of immaculate conception in spite of the well known looseness of sexual morals among the peasants. She of course denied that she had had any relations with any mortal man, and no one under the circumstances dared declare himself the lover.

Her family believed in her and after a while so did her neighbors. Her fame had gradually spread and already pilgrimages were being made to the humble hut of her parents where she spent her days in a hammock receiving fresh "visions". Poor folk, being credulous and quite willing to be comforted in a new way. They came to her as an oracle asking for this and that. Several successful "cures" were enough to establish her reputation.

The Franciscan padre, a merchant in ipecacuanha who turned out to be a former French intellectual, one of the odd types that one meets with in Matto Grosso, men with a "past", hard, disillusioned, and I divided a bottle of good French wine over a discussion of this girl. The Padre was very angry. It appeared that all his efforts to make his flock understand that a fraud was being committed on them had proved of no avail. The simple folk applied simple logic. The Padre preached the Immaculate Conception, did he not? Well, if it happened once; it could happen again. The Padre told them about the miracles performed by the saints, and that these same saints had suffered persecution, did he not? Well, the girl was performing miracles. Everybody was talking about the marvelous cures she was performing daily. Like other saints she, too, was suffering persecution. # The French merchant made no effort to console the Padre. He merely rubbed salt into the wounds. "Your people," he said, " are religious. Because they do what you say in such things as going to Church, confessing, giving alms, you like to believe that they are Christians and Catholics. Your present troubles are due to that

mistake. The rich attend mass in their finery, are devout in varying degrees and in a formal way, just like the rich anywhere; stereotyped, frightened, restrained, bound rigidly to a system, a code. The poor and abandoned, on the other hand, make religion a living thing by relating it to life as they experience it. They practice a religion in which they believe implicitly and which explains everything to them. They go to it with their joys and sorrows and they make its gods so human that any one can understand them. The poor worship; they must also revere, adore, fear, hate at times, laugh over, scold, and censor if they do not come up to expectation. In this they are virile and dynamic, capable of many surprises. When a situation such as the present arises, they sweep everybody, rich and poor, ignorant and educated, along with it.

"Folk religion makes gods of mortals and mortals of gods. Its hierarchy is directly responsible to "the people", Believe me, Padre, it is they, "the people", who rule heaven and earth.

"Saints are made by popular will, not by the Catholic Church as you officially would have us believe. And to retain any degree of power, any influence, these saint-gods must stay on the job, serving the people through "miracles" to keep from becoming merely names in the Catholic records. Your Church does not easily bow to popular agitation for the recognition of a new saint. You make the path to sainthood long and difficult. You say that at least fifty years must elapse after the death of the candidate and that during that period numerous "authentic" miracles must be recorded. You scrutinize the evidence which the people put before you with almost a priori antagonism. In fact, miracles alleged to have been performed by such tyros are more apt to be discountenanced or belittled. No, you don't make it easy to become accepted as a saint in the official aristocracy of the Catholic Church. But

popular clamor really makes saints in spite of all of you. When the people want a new saint, they cannot be denied. There are many defunct individuals who go about the land, acquiring a reputation for miracles, who have no official support, but who capture the popular fancy. These are the true folk-gods of the people and they are the ones who bring greatest comfort and protection to the rank and file living in far-off places. The Church officially destroyed the pagan gods; but since pagan gods possessed human attributes which any one could understand and sympathize with, they have not been allowed to die and are nurtured secretly disguised under the names of saints.

"Just now this "saint" has caught the popular imagination. Contributions are pouring in to build her a church while your church is empty. Men and women are crying with each other in contributing labor as well as money. They are being virtuous too. There is no stealing, no quarreling, and every one is abstaining from sexual relations at the camp which has grown up over night around her hut. Hard-boiled cattle thieves, diamond miners, hunters, and even politicians have flocked to Tanque Novo.

"You and yours have been tearing your hair and your beards. You have preached against this absurdity. You have threatened your flocks to no avail. Your churches have become empty. The contributions are going to Tanque Novo where the virgin "saint" will unquestionably produce a dark child in a few months which already is being spoken of as the new Christ-Child. The countryside has gone crazy, the priests are going crazy, and cynics like me are having a good time. Ecce Homo."

"No doubt but that the devil is still abroad," said the Padre.

"No doubt, but the devil makes men and gods human. That's why he is so successful," said the merchant.

Late in the afternoon of the next day we started back for Descavaldos. It was rainy and dark at first, but later, with the suddeness that most things happen in the tropics, the clouds vanished and we had a crystal clear night heavily studded with stars.

Sometimes sleep does not come easily in the tropics and then there is no company but one's own thoughts. All that night until we reached Descavaldos in the early morning I stayed wide awake, now gazing at the sky above, now lying in the bows watching the reflected world of stars underneath, listening to the throbbing of the motor, the solitary cry of some bird, feeling small in a very big universe, but not lonesome. Everything seemed to fit.

I sat beside Aristedes the pilot. In our country he would have been classed as colored, but in Brazil he was merely a Brazilian. He was generally silent but every so often he would burst into soft song that took its rhythm from the very undisciplined wildness of the country, a rhythm that we, the foreigners, were beginning to feel.

We smoked and I said,

"Aristedes, it is a beautiful night."

"Si, senhor professor, the night is beautiful."

"It is cold, Aristedes."

"Si, senhor professor, it is a cold night."

"Let me steer, Aristedes."

"Always at your service, senhor."

The man moved over on the deck and I took his place heading the bow of the boat for the point where the two dark masses that flanked the river seemed to meet.

"Life is good," volunteered Aristedes.

"Life is good," echoed I rounding the bend of the river to head for that faraway point where the banks of the river seemed to meet.

"We always seem to be going into the dark," said Aristedes, meaning that I should ~~to~~ point the boat always to where the darkness on each side of the river met.

"We always seem to go into the dark," said I, meaning that the future is always unknown, and I thought of my companion.

There was Mack sleeping in a hammock swaying gently from side to side whenever we rounded a bend. Where are you going, Mack? A future spelling adventure took you out of the halls of a University, led you to South America where your dreams were shattered. What was left of you when that happened? Why did you not go back?

You dress in open shirt, baggy pants and unlaced shoes, sleep in a hammock in a bare room, have a dark woman and children by her, and in a land where every one goes armed you ride out with only a penknife, hands in the pockets of your torn overcoat, and the fiercest outlaw does you no harm. Wisdom is yours, Mack, and you keep your own secret.

Fen Johnson, your great length hardly fits the hammock. You have wealth in your country and a wife and children whom you love. What has brought you to Matto Grosso to sleep under its stars, to eat the meanest fare, to expose your body to millions of insects and a thousand dangers, to comraderie with honorable and noble poor men of the jungle? What is your future?

Oh, Captain Pefilieff, where are you going? You have wandered far already from your native Russia to every corner of the earth.

Where was I going? Into that blackness ahead of us, which we never quite reached. It moved on indicating the next bend. I then let Aristedes pilot the launch and sat beside him while he told me of many adventures, many super-

stitions, many romances, until dawn broke and I retreated to my hammock until we reached Descavaldos. Another attempt to begin my work in the Indian country was ended.

Chapter IX

The expedition was interested in producing an extensive series of scientific and educational motion pictures with natural sound effects which would portray life as it is in Matto Grosso, a life that is undoubtedly doomed to extinction before the inevitable advance of civilization. We were well equipped for the purpose with the most expensive cameras and an expert staff of cameramen. We felt the pride of pioneers in that we were the first group to take to the field a sound-track-on-film recording apparatus, a bulky and expensive affair which induced a feeling of awe in every one but the sound engineer who spent most of his time cursing the designers and makers. It was an experimental set, the second ever built, and proved to be, in the end, far from satisfactory.

After the trip to the Bororo da Campanha, we realized that we were not progressing very rapidly toward this objective. The rainy season had been prolonged and heavy with the result that the overcast skies and a flooded countryside interfered with the taking of pictures as well as preventing rapid transportation of equipment.

As for myself, I had expected to find in the swamps of Xarayes and withim a reasonable distance of Descavaldos Bororo and Guato groups among whom I could investigate various phases of their ancient aboriginal culture. The trip to the Bororo village had been the final proof that I still had to travel hundreds of miles to reach aborigines practicing their traditional customs, and I was faced with the problem of reaching them. There was still too much water between Descavaldos and such regions to allow travel overland.

However, better days seemed to be ahead. The country was beginning to dry out. The yard which long had been a sea of mud churned

by the cattle, was now floored with several inches of dust. Out in the pantanal, large patches had become dry, patches of soft sand alternating with cracked clay beds baked iron-hard by the sun. Showers had become so infrequent that in higher places the green short-grass was already losing its emerald tone and assuming the gray-green of maturity.

It was now possible to make more extensive trips from Descavaldos. One day a party was organized to film Siemel in the act of spearing a jaguar. As far as we know, Siemel is the only white man who makes it a practice to stop the charge of a jaguar on the blade of a spear. To him this is real sport, since it gives the jaguar a more equal chance than if the hunter is armed with a high-powered rifle. He enjoys the hand-to-hand combat which gives him a chance to match his strength and agility with that of the animal, an attitude sharply differing from that of another hunter who considers hunting with a rifle not sufficiently satisfactory and has armed himself with a cannon for hunting hippopotami in Africa.

Sasha Siemel was taught this method of hunting by an old Guato Indian. Being a strong man, and tired of hunting with the gun, he thought that, if the smaller primitive aborigines could stand before the charge of a jaguar when armed only with a bon-pointed spear, he could do it with a steel-bladed spear. When it is considered that many of these cats attain the extraordinary size of three hundred pounds or more in Matto Grosso, it must be conceded that this is no mean feat.

Jaguars are very numerous in the swamps of Xarayes and, where there are cattle, do a great deal of damage. One rancher claimed that he loses several thousand head every year. Although they seldom attack

a full-grown bull, they are big and strong enough to prey on steers and cows. They feed also on deer, tapir, capibara, and, when they find no other game, even alligators.

They are hunted with dogs, the hunter following closely lest the jaguar, when brought to bay, will kill them. Often the dogs are successful in treeing the quarry, in which case it is brought down with a well-placed bullet or arrow. If one is a good shot, there is no danger in such cases, but if the jaguar is merely wounded, it will leap down and attack, becoming a formidable and dangerous animal.

Often, though, the jaguar will take cover in the thick undergrowth of some jungle patch. The hunter runs the greatest risk there. He can see only a few feet ahead and he does not know where the animal may be until he approaches too closely, when a roar warns him of the leap that quickly follows. One must be a quick and good shot to stop its charge. If armed with a spear, the hunter braces himself and presents the point to the jaguar, dropping the butt to the ground at the moment of impact. The point of the spear must be guided to the chest, otherwise it will have little effect. If successful, the hunter will then try to turn the jaguar over, to pin it to the ground or to watch his opportunity to stab again. If the hunter fails, death comes to him quickly and horribly.

Seldom will a jaguar attack a hunter until cornered, but it happens sometimes. On the return of the hunting party Rossi, disgusted over his failure to get good pictures, entertained us with the story. His great ambition was to photograph the jaguar impaling itself on Siemel's spear. With that end in view he stayed close to Siemel, taking risks that few men would unless they happened to be cameramen.

"I'm not sure," complained Rossi, "whether we were hunting the jaguar or the jaguar was hunting us. Not that I cared much, the main idea being to get pictures. Anyhow, there we were with animals and things lurking everywhere, only we didn't know it, because they lurked so well you couldn't tell whether they were lurking or not. Anyhow, old man Tigre wasn't doing too good a job of lurking in the densely matted impenetrable undergrowth; so our dogs suddenly stiffen up and look wise, start yelling and running, and our horses just automatically start running after them and us being on top of the horses, we went along too, which was what we wanted to do anyhow. It doesn't take long before we come to a piece of densely matted jungle with dense undergrowth. And this time we couldn't penetrate the impenetrable jungle. So we stood there wondering what to do while the dogs went crazy trying to get at that cat--which doesn't make sense because when they get at close quarters with him, they work like mad trying to keep out of his reach. Anyway, while we stand there holding a convention, el Tigre decides to act. He must have been near us all the time, and I guess he didn't care much for our plans concerning him; so he decides to lurk no more, and out he comes. He wastes no time, but leaps right at Manuelito, but misses him and lands on the horse which gets kind of balky and goes into a tantrum that shakes el Tigre off. Siemel begins jabbing away at the cat with his spear to distract his attention from Manuelito, which results in el Tigre turning around to play with him. By that time I have my camera all set, and just as I start grinding, Siemel spurs his horse to head for the clear with el Tigre after him, close enough to get fanned by the horse's tail, all the time making annoyed noises. Georgie here thinks he's back in Florida, and so he takes after the cat whooping it up and fiercely twirling his lariat, which didn't worry the cat any as far as I could see. It was the prettiest bit of action you'll ever see, and all of it out of camera range. I yelled to Siemel to turn around and run my way, or at least

to let the cat catch up with him, but he wasn't considerate enough to even answer me. There it all was, man chases tigre, tigre chases man, and no picture. I was mad enough to eat my camera, which I might as well have done for all the pictures I was getting with it. After chasing Siemel for about a hundred yards, el Tigre gets tired of the game and decides it's more fun to go back to lurking; so he goes and finds himself a nice spot in the dark dense undergrowth. I catch up with Siemel and get my camera set. I get all set to catch el tigre in the camera as he jumps out at Siemel, who was now off his horse and ready for the cat with his spear. All the time the dogs are raising a tremendous row, helped along by Manuelito, who, quite unreasonably is cussing the cat's innocent ancestors, who, as far as I can see, aren't even around and certainly have nothing to do with the case. El tigre must be a sensitive creature, as well as ornery, for he comes running out, not where he went in, and heading straight for Manuelito. Which means that I have to reset my camera, and while I was doing that, Siemel runs up and spears the tigre and it's all over. All I get is a picture of the dogs tearing away at the jaguar, whose lurking days have definitely come to an end."

"Yessir, Art was so mad," said George, "that he jumps on el tigre himself to help the dogs tear him apart."

Though Siemel speared a number of jaguars during our stay at Descavaldos, we never succeeded in filming him in the act. Sometimes it happened where the underbrush was so thick that the camera man could not get to him; sometimes it was too dark; often it happened so quickly that there was no time even to focus the camera. It proved conclusively that the best action pictures of animal life have to be staged. If a jaguar were placed in a corral which would be made to look exactly like the jungle, and Siemel were to spear it

in full view of the camera men, who would have everything ready beforehand, a picture would be produced faithful to the truth in every detail to the actual hunt. At that time we did not think of it that way, though. It was to be "natural" or not at all. It became not at all, and to this day, no one but those who have accompanied Siemel on his hunts has seen this feat, which, in addition to producing a thrilling episode, demonstrates the hunting methods of the now almost extinct Guato.

We did not always hunt to kill or to take pictures of a killing. Whenever possible we captured animals alive. In the case of the cats this was risky business. One day the dogs picked up a scent, followed it for some distance, with the hunters on horseback in full chase, until a puma rose from a fresh kill and loped off across a patch of grassland. It tried to reach a hummock of jungle, "capão", a quarter of a mile away. We circled it. George Rawls was on this hunt and he tried to lasso it, but without success. Finally, the puma, a beautiful large male weighing about one hundred and fifty pounds, broke through the ring of horsemen and reached the jungle. Leaving the horses at its edge, we hacked our way in to where the dogs were barking at the foot of a huge ceiba tree. Far up on a branch was the puma looking down at us. We could have brought it down easily with a shot but decided to capture it alive. Throwing off his gun and belt, and armed with a pole to which was attached a noose, Siemel climbed the tree. While the animal snarled at the dogs that kept up an incessant barking, Siemel made his way from branch to branch until he was within some ten feet of it. The puma crouched, but Siemel had the noose almost around its neck. It was thrust aside several times but finally Siemel succeeded. Bracing hinself, he jerked the rope and then began a struggle between man and beast that kept us tense with expectation. The man pulled, the puma clawed and gave voice to all sorts of cat noises. It seemed ready to leap

at the man, when Siemel, by a tremendous jerk, succeeded in pulling it off the branch. Half-choked, it fought desperately with tooth and claw. It was held suspended in the air out of the reach of the dogs until, half insensible, it was brought down and bound securely. It was carried back to camp to begin its life sentence of living in a cage in a zoological garden.

In similar manner we caught a number of ocelots, scrappy animals, though small in comparison with the jaguar and the puma. We also acquired a tapir, capibaras and deer. Armadillos we were successful only in keeping the small variety. The large ones, weighing about a hundred pounds, are very rare. Though we captured two of these, both died in captivity. We saved the skeleton of one, and now it is in the collections of the Academy of Natural Sciences. There are only several in the country.

The tamandua and the giant tamandua bandeira, ant-bears, were caught easily. The only means of defense that these animals have is the long and powerful claws in their forepaws. They are slow in gait and easily overtaken. Their tremendous bushy tails give them a formidable appearance, and they can hold their own against dogs. When cornered they rear up, presenting their claws to the antagonist. If one is quick, he can seize them by the tail, throwing them forwards, in which position they are helpless.

On one of these hunts we got a red wolf, an exceedingly rare animal. The hunting party was going along trying to fina a fresh jaguar trail when Hoopes saw the wolf. He thought it was a dog at first. It stood still in the tall grass watching the cavalcade, its long black ears erect. We were not able to catch it alive, but before killing it, Sam Hoopes took motion pictures of it. It was turned over to Rhen, the naturalist of the Academy of Natural Sciences, for mounting. It is an interesting animal, quite large,

with a bushy tail, and reddish in color. Its special adaptation is the extremely long legs. Living in the swamps, it is able by their means to make its way over marshy country and range through the tall grass and undergrowth more easily.

One day, accompanied by a native boy, I went bird hunting with a camera. Leaving the river, we cut our way through a narrow strip of jungle to the more open country beyond. We saw large quantities of birds of many species, roosting on bushes, and feeding in the marshy ground. So intent were we in approaching closely that we failed to notice the softness of the ground underfoot. I took several pictures and was making my way towards a large number of tuyuyu, or jivaro storks, when I suddenly found myself with water and mud above my knees. My first reaction was to try to struggle out of it with the result that I sank deeper. The native boy was about fifty feet away, ankle deep in mud and of little use to me. I don't remember how I escaped finally, but when I reached harder ground, I was too exhausted to continue after birds. We beat a retreat to our canoe and to camp.

Fen Johnson, Newell, and Rawls set out one afternoon on a capibara hunt, but they got a tapir instead. They returned late at night, tired and hungry. Later, after their hunger had been satisfied and we were lolling on the porch, Rawls responded to the usual banter with the story.

"Well," began George in his lazy southern drawl, "I was sort of getting better acquainted with my hammock this afternoon when Fen and Dave here invite me to go capibara hunting. I don't know what a capibara is, but I reckoned that if it's something you hunt, I'd be agreeable to going along. On the way to the dock we pick up Aristedes and Manuelito. We go up river on the Wunco about five miles, land there and head for the big lagoon up there. ~~We~~

We hack our way through the bushes and creeper until we come to what Fen over here calls a forest glades pretty and clean as a Florida meadow it was. We make our way through it but we never get to the lagoon. We give it up because we got bogged down in mud and quagmire long before we got into shooting distance of it. So I still don't know what a capibara looks like.

We wander around looking for game, but Fen and Dave, they're in a trance, talking about them big wild fig trees and pyuva and palms and not giving much heed to hunting. I reckon I myself, I got to looking around at the pretty butterflies and flowers and bright little birds. We come to some fire-ant trees and give them a wide berth - all except Dave. I reckon he won't want to fool around them critters again. Fen's all the while looking for snakes, but I was just as happy not to see any no matter what their shape or color. We seen monkeys looking down at us from tree tops, chattering and laughing at us like a bunch of children, and suddenly getting tired and jumping out of sight. Now and again we had to use our machetes to cut our way through. Man, that's something I like, using them oversized kitchen knives. It makes you feel that you're getting a heap done when you cut through that thick brush so fast.

There's so much to see in that forest that you almost forget all about the game. But all of a sudden I see something about the size of a cow that sure ain't no cow and I fire away. Well, that made a mighty big fuss in that jungle - thousands of birds took off, a lot of little animals went saampering around, monkeys jumped around, the whole mess of them yelling their fool heads off. You wonder where they all came from, everything was so sleepy and peaceful like before.

We move up to the critter and find him already dead. It's the queerest looking thing you ever saw. It looks like a sawed-off elephant

with a sawed-off trunk. Fen says it's a old cousin of the horse—well, if I was a horse I wouldn't be in any hurry to claim kin with that ugly critter. Fen wants to take it back with us. The meat ain't much good for eating, but he wants the critter for scientific purposes, but the critter is too heavy and we have to leave it laying there.

By that time the sun is getting mighty low, so we start heading back for the boat. But right away an argument develops with Manuelito and the other boy insisting on going their way. Well, they're mighty stubborn about it, but Fen shows them his compass and they give in out of respect for the instrument, not because they can read it. We hack our way down to the river and there's no boat in sight. We go up and down a bit, but the going is so tough there that we decided to go back and take Manuelito's way. It's dark by that time. We go back and make a fresh start. Manuelito's way feels wrong to us, and we argue with him a little, but having been in the wrong once, we let it go. So we follow him, thinking all the time that probably we're getting deeper and deeper into the jungle and away from the river. We can't see much and we go along, hacking, slipping, getting scratched by thorns, and cussing a blue streak. We talk about stopping for the night, but without hammocks and mosquito netting it would have been a right miserable night. So we go on, bumping into each other, arguing with Manuelito. And then we come to a path through the jungle. It was the same one we had cut ourselves when we first came from the river. Sure enough it brought us to the river and there was the boat. I don't know how they do it, but I've sure got a heap more respect for these natives boys than I had before today".

Several miles away from the ranch buildings was a beautiful open savanah that had already become dry. Short green grass spouted everywhere. There, we were told we might find flocks of rheas, the South American variety of the ostrich. The rhea is not as large as the African ostrich

and has three toes instead of two. We decided to obtain a number of specimens for the Academy. These birds can run as fast as a horse and in the open they are so wary that it is somewhat difficult to approach them. Their coloration mimics the vegetation, protecting them from the hunter when at a distance. We decided to try running them down with the Ford automobile that formed part of the expedition equipment. Previously, the high water had prevented its use, but we expected that it would be very useful in the dry season for quick transportation across the plains.

I drove the car to the savanah and immediately set off after a flock of the birds about a mile away. Clarke and Rawls braced themselves ready to fire with their shotguns when we should come close enough. The ground was level but somewhat bumpy. Forty miles an ahour was the fastest I dared drive. The rheas had no suspicion that they were being hunted. They looked at the fast approaching car, with curiosity, I suppose, until we were within a hundred yards of them. Then with necks slightly outstretched, their vestigial wings slightly lifted to give them balance, they raced off. We caught up after a hard run, and when among them, I regulated the speed of the car to theirs. I discovered that they were running at some point between thirty and thirty-five miles per hour. Rawls and Clarke brought down three of them, shooting them through the head. We amused ourselves by chasing other flocks, but shot no more. Three were enough as scientific specimens for the Academy. Rehn and his Bororo boy Pereira made daily excursions collecting birds. Pereira learned quickly and the two of them managed somehow to discover a new species everyday.

And then one day in May, news came by radio to Descavaldos that the plane was on its way from Corumbá. The lethargic settlement was suddenly converted to intense excitement and pointless activity. Everyone, native and foreigner, had been looking forward tot this event for months. Ever

since we had learned that we were to have an airplane, we had engaged in an exchange of tales about our experiences in the air and debates on the relative merits of the various types of machines. Then natives' conversations were by far the more interesting. Only once before had a few of them seen an airplane, and then only as a tiny speck high up in the clouds. Even this was to most of them a legend. So, those among them who had a reputation for wide experience and knowledge, or who had merely the gift of language, explained at length, to groups of admiring wide-eyed listeners, the imaginary mechanics of the airplane and the wonderful things it could do. That human beings could actually fly like birds seemed a marvel to them, and truly it is.

It took a little under two hours for the plane to reach Descavaldos, and it was the most intense period ever spent at that port. No one could work. Some of us collected around the radio room to receive the almost mile-by-mile account of the flight as broadcast from the plane. A number of natives loitered around the doorway to receive scraps of news, in poor Portuguese, from us. Sam Hoopes went out on the river in a boat, ready to indicate to the pilot where it would be best to moor the plane. Mack spent his time walking from his house to the radio room and back again, scanning the sky for the tiny speck. A great many went to the pier, where they formed groups around orators telling about the marvelous invention. The leather worker, an industrious man, struggled to keep himself at his bench, but he found numerous excuses to go to the door to listen and look up in the sky or to get news from some passerby. And there were many moments when someone would claim that he heard the distant hum of the motors. Everybody would listen intently, and then it would prove to have been imagined.

Finally there was the unmistakable intermittent roar coming from

afar, and as the news spread everybody dashed for the river bank, men, women and children, as if the plane would give no time for them to reach a point of vantage. A speck appeared in the southern sky and everybody burst into chatter and shouts. It grew large, the roar became louder, and soon it was circling over Descavaldos, while we followed its flight with upturned faces and the dogs went dashing madly around barking as if their very lungs would be exhaled with every effort. The plane landed, its silver body flashing in the sun, and then taxied to where Hoopes was paddling his boat. We all dashed for that point. It was a happy occasion and, being out in the wilds, some of us celebrated by firing our guns into the air or laughing at Perfilieff's futile efforts to do the same thing with a gun that jammed. The mechanic appeared on the cockpit with a rope, and many eager hands tried to catch his throw. Mr. Ramsay appeared and everybody cheered, and he, seeing what a celebration we were making, answered our greeting with a rapid revolver fire that showed an expert hand.

The plane was moored. The crew, Mr. Ramsay came ashore. Introductions all around. The pilot was Charles Lorber, on leave from his regular route with the Pan-American Airways; José Sauceda, the co-pilot came from El Paso, Texas; Hans F. Due, heavy-set blond, was the radio operator.

We left a curious crowd gazing at the Sikorsky to go into momentary retreat with our letters and to settle our newly-arrived comrades. It became a very busy afternoon, more so after Johnson, Siemel, Clarke and I decided that we should waste no more time in going to Cuyabá. We decided to make the trip the very next day. There were a few final permits for my companions to get at Cuyabá, and a great deal of information. We thought too, that we should present our plans in detail to the state authorities although the Federal government was fully informed about them. I, of course,

wanted to make plans with the authorities for my trip to the Xingu region.

Although it was past the middle of May, the weather was still uncertain and the next day began so dark that we almost gave up hope of taking off for Cuyabá. News that the plane was leaving that morning had spread to every person at Descavaldos and a crowd began to gather along the riverbank in the early hours. The day before they had seen the plane come in from Corumbá, a tiny speck in the distance at first, purring intermittently and softly, a speck that grew in size until it took on its natural proportions and roared as a two-motored Sikorsky of those days could, to the astonishment and thrill of all the population. So now they gathered to see the plane rise from the water, a phenomenon that to them naturally appeared to be more strange and wonderful and perhaps impossible. After all, to a fall from the clouds is much easier than to climb up to them.

In a group were the Bororo girls, black-haired, round-faced and almond-eyed, wearing short thin skirts, bare-legged and barefooted, who had come from the village with their water-jars and gasoline cans to fetch water from the river and who lingered there as if it were a holiday. The men stood by themselves, the cowboys with leather-fringed aprons dangling from their waists, knives stuck through the belt not at the side or in front but behind at the waist, huge spurs on bare feet, their arms wrapped around their bodies, speculating about the wonderful machine that was still tied to the bank not far away. The old German carpenter was there wrapped in his long apron which was not sufficient to hide his elephantic legs, stroking his beard from time to time, silent and alone. The leather worker, mechanic, the spear-men, the Bolivians who had come in with their load of rubber, and a host of naked children were all there patiently waiting to see the miracle. To one side were the expedi-

tion members with Ramsay and Mac. This was the first departure of the plane and we found it of as great curiosity as the natives did. And the dogs and the fowl and the pigs were there, fighting and playing, sharing in the excitement of the human population.

At eleven o'clock the clouds lifted somewhat, the ship was loosed from its moorings, the motors were started, we waved goodbyes and while the crowd cheered, shot revolvers, and the dogs barked or scurried away, we taxied into the wind and up we went, to circle Descavaldos, causing more excitement especially among the animals that crowded the clearing, and then to head south toward Corumbá.

Only once before in the history of Matto Grosso had an airplane passed over this part of the country. The famous Italian aviator, de Pinedo, had come south from the Amazon, landing near San Luis de Caceres to take off again for Asuncion, Paraguay and Buenos Aires. He had flown high and only a few of the natives had seen or heard the plane. This was the first time that any of them had ever been close to one or had seen one land and take off.

Since maps of Matto Grosso and descriptions of its people, fauna and flora are either non-existent or too meagre to be of much use, in all our flights we took great care to make careful and volumnious observations of the land beneath us and also of flying conditions. For the first time we saw how water-locked we were actually at Descavaldos. Often we had become impatient at being told by the natives that we could not go here or there because there was too much water in the surrounding country, and now we saw that their reports had not been exaggerated. As far as we could see the settlement of Descavaldos was the only really dry spot. There was the country beneath us, a patch-work of grass-lands and forests in a sea of water. The banks of the Paraguay were marked by the

tall trees and not by land. Everything seemed to be submerged or partly so. As we flew southward we saw great humbers of birds, cattle and horses feeding in the water, and all at the sound of our motors took fright and fled in any direction and aimlessly. We flew low and when we reached the mountains of Dorados we barely skimmed the top. These mountains were forest-covered, and rough, and we could easily understand why it is said that no man has ever penetrated its jungles. It inspired us with the desire to be the first to explore them, but for many reasons, when our work in Matto Grosso was over many months later, we had failed to do so and they remain unexplored to this day, no one knowing what forms of fauna and flora life might be discovered there. Though there was no sun to bring out the colors we marveled at the beautiful carpet of jungle beneath us that seemed to be in full purple bloom. We were looking down upon square miles of pamboras tall trees that produce purple blossoms.

Our arrival at Corumbá in an hour and three quarters constrasted sharply with the four days that we had taken to make the trip by boat. As a courtesy to the town we circled overhead before settling in the river and were treated with the same sort of excitement that we had witnessed at Descavaldos, though the Corumbaens were accustomed to seeing the weekly arrival and departure of the plane that flew between Corumbá and Cuyabá. Ours was much bigger and besides it belonged to a foreign group. A little later ~~found us~~ we were seated at the Galileo Bar on the sidewalk sipping our beer or whiskey, greeting our friends, while a curious crowd loitered around us.

I enjoyed my return to Corumbá! When I had been forced to idle there I had loathed it at times, but now it seemed like returning home. Many of its citizens knew me. They came to greet me welcome, to inquire

about our work, to exchange pleasantries. The parade of girls along the balustrade, the view of the pantanal, the gardens and the bar, produced a pleasant feeling of simple luxury. I enjoyed stumbling over the boy sleeping across the threshold of the hotel when I retired for the night and likewise to be awakened in the morning by the barefooted boy with his offer of hot thick coffee.

For once Fortune smiled on the expedition. We found at Corumbá General Mariano Candido Rondon, the great hero of Brazil, the man who had more for the exploration and development of his country's hinterland than any other man, living or dead. It was he who established Brazil's outstanding Inspectoria de Protecção dos Indios, the equivalent of our Indian officer with the added task of protecting the Indian. Himself with a great deal of Bororo blood in him, born in Matto Grosso he early distinguished himself as a young army engineer interested in everything that the hinterland held and protecting it from ruthless exploiters. He built telegraph lines through unexplored regions and wrought the miracle of not only winning the confidence of the savage tribes but even using them as the guards and repari men. For example, the telegraph line linking Cuyaba with the Madeira was built by him and is entirely manned by the Parecis Indians. I had visited General Rondon in Rio de Janeiro. A smal bronzed man, the picture of health ane energy in spite of his seventy years, endowed not only with great intelligence, but a great friendly personality. As George Rawls would have put it " we sure were glad to see him", and more than glad when he accepted our invitation to fly with us to Cuyabá.

The next day we were kept in Corumbá by the weather. It was cold and dark. We cursed this fickleness of the tropics. At every turn there is an obstacle and one is forced to wait, doing nothing in the meanwhile

until conditions change for the better. We were glad that the following day was full of sunlight. We had seen enough of Corumbá. We too were fickle in our likes and dislikes.

With most of the population gathered on the bank of the river and on the heights of the town, we put on our little show of taking off. Circled once over the town as a salute, and then we headed towards the distant hills of Dorados. We followed the course of the Paraguay river to the mouth of the Rio São Lourenço and then followed that river to Cuyabá. It took us two hours and thirty six minutes, a period of time spent in making notes and enjoying the colorful pantanal over which we were flying. I am convinced that when flooded this region seen from the air on a sunny day is one of the great wonders of the world. The only way that I can suggest its quality is to imagine an Oriental carpet whose dimensions are in terms of hundred of miles, woven in intricate flowered and geometric patterns, with purples and greens the dominating colors. This carpet is of course everchanging in patterns and colors like the evening sky and is filled with life of various forms. As we roared by overhead, birds took flight, cattle ran or swam to cover and the amphibians immersed themselves in water.

For General Rondon it was a thrilling experience. He knew the country beneath us almost foot by foot but he had never seen it from above before. He kept making notes in his notebook in spite of becoming ill.

We discussed the vast natural resources that lie imprisoned in Matto Grosso for want of population. There were beneath us vast timber resources and a land that could be turned to agricultural use, a land that could feed many millions but today however supports only several hundred thousands.

There was excitement at Cuyabá as we circled above the white city. We saw people pouring out of the houses into the streets to gaze aloft at us. Traffic stopped, men on horseback were in difficulties with their hosrses that reared and plunged. It was in fact a scene reminding me of days of the war when airplanes first flew over our cities. We landed safely thanks to the sagacious judgement of our pilot Charles Lorber.

We went to the hotel, made for the back in a hurry leaving a crowd at the river bank admiring the amphibian plane.

With General Rondon in Cuyabá our official business was easily dispatched. He took a keen interest in our work and though he had never visited the Xingu region he offered innumerable helpful suggestions. His only regret, and ours, was that he could not accompany us. His assistant at the office of the Inspectoria put everything at our disposal. They advised us though to wait several more weeks before attempting the trip north, for the trail to the Inspectoria's outpost on the Paranantinga was still unpassable. We flew back to Descavaldos this time in good spirits. From now on we could move fast.

A busy week followed at Descavaldos. During this period we made two trips by plane, one to Corumbá and one to explore the upper Paraguay; closed the archaeological work, packed the specimens and prepared for the Xingu trip. The other members of the expedition also were more active, hunting with camera and gun, and building the corral.

The transportation of the specimens from the second archaeological site gave us some trouble. Most of them consisted of huge funerary urns, which had to be handled with great care. Their size made it a clumsy affair. Each urn was encased in a crude splint basket made by the natives. They were then carried out from the forest suspended from a pole borned by two men, through a wide path cut for the purpose from the excavations

to the edge of the forest where they were loaded on an ox cart. It was slow and clumsy work, but we succeeded in doing it without the specimens suffering any damage. They were subsequently packed in boxes made of heavy cedar and most of them reached Philadelphia whole.

The preparations for the Xingu trip involved a choice of foods, trade goods, and camp equipment, which had to be packed in small boxes or parcels, since my supplies had to be transported by pack-bullocks and later by canoe. For this purpose we utilized gasoline boxes re-enforded with leather straps.

When travelling by canoe there is always the danger of capsizing and losing one's provisions. To avoid being caught without food by such an event, we put up emergency rations in empty gasoline tins, which were then sealed. They were so packed that they would float.

I decided to take two companions from Descavaldos on this projected trip to the Xingu. Tupi, the little smooth-haired fox terrier seemed to like me well enough and he was elected to go along. The other was Mueller the German youth who had been working for me as a sort of foreman over the men at the excavations. Extremely diffident, he had worked well and was a good woodsman. I intended to continue using him as assistant and foreman. In this way I could be relieved of many cares in connection with the routine work, leaving me more free to devote my time to my researches.

On the morning of June 8 all was ready. Eight hundred pounds of baggage and Josef were loaded on the plane and it took off for Cuyabá. I was to follow the next day with the remainder of the baggage and Tupi.

This was my last day at Descavaldos and I hastened to pack the last odds and ends, as well as to go over the final arrangements with Johnson. The undertaking involved a certain amount of danger and it was agreed that on a certain day in August, Johnson would look for me with the plane. If

he failed to find me, he would organize a relief expedition. Such details as seemed to be of importance, were brought up and settled, and by noon I found myself without anything to do. So I sat in the shade and looked at Descavaldos.

It was well past the siesta hour when I found myself on Hoopes's porch counting the hours until I should find myself on the way to Cuyabá. ~~the perfect morning~~. With the exception of a lone cowboy making his way slowly across the grounds, there was no other sign of life. The church stood alone, looking more dilapidated and deserted than ever. The manager's house by the river seemed to be suffering the baking by the white sun patiently and drowsily. The row of houses that sheltered the expedition gave the impression that they were shrinking into themselves to avoid the heat of the day that was making dust of their white walls. And where were the hundred dogs that at night kept us awake with their barking? They, too, had withdrawn for the day, it being their habit to save their energy for use in fighting in the coolness of the night.

In the yard in front of Hoopes' porch there was a brief rebellion against the order of the day. Two cocks, with bloodshot eyes, tore at each other furiously with beach and spur. I watched them and was rewarded with a curious scenario. Authority moved quickly and surely to suppress them. From the other side of the yard, the seers of the barnyard, two turkeys gobblers, resplendent in fiery necks and spread tails, strutted forward. As they came on, side by side, unhurried and majestically, a host of guinea hens formed behind them. They headed for the combatants, who by this time had succeeded in drawing blood. This barnyard army plowed between, effectively separating them. The turkeys continued their march, without paying the least attention the the brawlers, but the

chastisement for the breach of peace was metted out by the army of hens, which, splitting in two regiments, pursued both cocks amid fearful cackling. It looked rather serious for the latter when suddenly, with the change of mind thatis so characteristic of fowl, the chase was suddenly abandoned. The cocks became interested in beetles, and the pursuers, reforming behind their regal turkey gobblers, retired to shade and sleep.

A cloud of dust rising behind the Bororo village moved slowly towards the ranch buildings. Out of it emerged a horseman, then another, and one by one, a string of ox-drawn carts and more horsemen. They plodded on slowly, the oxen tossing their heavy yokes skyward with each movement, the spokeless wheels of the carts wobbling from side to side. The caravan finally reached the ranch buildings, and stopped by the church, where the carts were unloaded. It was a Bolivian caravan transporting crude rubber. A small fire was quickly built, and over it water was boiled for the preparations of maté. When this indispensable drink was consumed,the men loosed the horses and oxen, and then, all, men, women and children, crawled under the carts to sleep.

It was a hot afternoon, and a lazy one. The population of Descavaldos seemed to say, let us try to keep the blood flowing as slowly as possible in our veins, it has nowhere to go; it leaves the heart only to come back to it; there is no hurry.

Later there was another cloud of dust. It approached rapidly and resolved itself into three fast-trotting horsemen, Rossi, Hoopes and Mac. Reaching the fence, Rossi continued to talk merrily, no doubt reciting another of his fantastic creations, while Hoopes listened with a grin, and Mac regarded him, solemn face and twinkling eye. Rossi sat on his saddle like a westerner, patterning his style after that of Rawls and

Ramsay. Hoopes preferred the English style. He scorned leggings and wore only a shirt, light khaki trousers, and low shoes, seeing no need for heavier equipment when riding. Mac slouched and looked nondescript. Though it was a hot day he wore an old overcoat, and rode with his hands sunk deeply in its pockets. They unsaddled and carried the trappings away with them to their quarters. A small agile lad of ten appeared from an alley. He untied the horses, glided upon the back of one, and rode away leading the other two. It was rest time for the beast. Their day was done.

There was another interruption. A gentle purring, intermittent at first, became a steady drone. At the same time Rehn and Pereira, his Bororo assistant, approached. Their bags were full and Rehn seemed content.

"Senhor professor Mr. Rehn", said Pereira, raising a finger to indicate that he was listening intently. "Avion, airplane."

Rehn looked at Pereira with admiration. He grinned and said, shaking his head, "Não ongo, I don't hear it."

Rehn considered Pereira's eyes sight and hearing phenomenal and never tired of praising them.

But soon even Rehn heard the motors. He nodded his head affirmatively and as they reached the fence, we saw the plane coming from the direction of Cuyabá. No one showed any excitement except the newly arrived members of the Bolivian caravan. These, startled, rose up and dashed madly for the river with the dogs barking at their heels. For the rest the novelty of seeing the plane arrive had worn off. The leather worker, who previously had been one of the most excited of the natives, appeared from the dark interior of his house, shaded his eyes with his hands, took one look at the plane that was now circling overhead, and withdrew.

The plane settled in the water with its accustomed grace and then, turning, made for the bank just below the dock. A number of native women who were there taking a much needed bath, hastily climbed on the bank and put on their dresses. The plane reached the banks so quickly, however, and the women were so clumsy in their haste that several of them did not have time to cover their nakedness. They ran for the nearby bushes instead, their consternation drawing excited giggles and good-natured teasing by their quicker companions.

Sauceda appeared on the forward cockpit and cast a rope to us who had made our way to the bank by this time. The plane was made fast.

Clarke always greeted the expedition members with a shout, a hearty shout the equivalent to a slap on the back. Son on this day he gave a whoop and shouted a greeting to Lorber, the pilot. The trip had been made without incident. Mueller was lodged at the hotel, waiting my arrival. We trooped back to our quarters.

So Descavaldos became its usual dormant self. All animal life sought shade, either to loaf or to work. Only the buzz that came from the carpenter shop revealed that some activity was being carried on in the village, Hoopes and Rawls withdrew to the former's porch to read and write, joining Davis who as usual was working on microphones. Clarke went back to his "desk" a cedar board over two gasoline boxes. The cook and his assistants began to prepare the evening meal. Dona Maria talked to her parrot. Life was calm, one might as well talk to the parrot.

Within the laboratory, I found Rehn busy preparing birdskins. Conversation with Pereira, who skinned the birds for him across the table, was necessarily sketchy. Pantomine, Portuguese, Spanish, English and even Bororo were employed to make the meaning clear.

"Dos novos", said Rehn, raising two fingers and pointing to two birds. Pereira answered with a grin. He understood that the morning hunt

had produced two new species.

A little later Clarke and Johnson joined me for our daily swim in the river. They looked sleepy and somewhat fagged. I suppose I looked no better.

Reaching the river, we dived into the water, swam back as fast as we could to the bank, climbed out, dived in again and swam out. This performance was repeated until we tired. Swimming enthusiasts as we were, we had no desire to be bitten by piranha. We thought we solved, by these tactics, the problem of attack by these voracious fish. Our plan was simple. Dive in and then race the fish to the bank. It would have been fine to swim across the river. The water was claar and without a ripple. But we knew that too many persons had been mutilated in these waters, and, in spite of our desire for a good long swim, we dared not stay in the water too long! Swimming fifteen feet at a time was not good sport. We gave up the swimming soon, pretending that we had had a swim. It was a regular daily ceremony with the three of us.

Manuel called the expedition to dinner. The signal was made by pounding on a hide stretched over the mouth of an immense barrel. The sound produce was that of distant thunder and it could be heard at a great distance. This drum was constructed to take the place of the bugle that was formerly in use. The bugle of course was all right, but the buglers never could get beyond the third note without climbing the scale ad infinitum. The drum was better. It frightened the dogs, and started Chica, the fox terrier chasing the hogs. Outside of that it was an improvement in the musical division of the expedition.

Descavaldos became awake. Figures moved across the yard. A line of girls and women, barefooted came down the "avenue" making their way to the river. They were half-breed Bororo, on their way for a fresh supply of water. The dogs were everywhere. The fowl strutted about. It marked the

beginning of night life at Descavaldos.

Darkness came and the outlines of the buildings forming the quadrangle became indistinct. From each doorway soon came the flicker of yellow light as candles were lighted, for only the headquarters of the expedition and the manager's house enjoyed electricity.

When Rehn and I entered the dining hall we found the expedition already seated at table. There was Perfilieff at its head, looking benign, immense, an effect intensified by his tremendous red beard. The light shone on his bald spot, and thousands of insects, no , million of them, were fighting for a chance to alight on it. Johnson sat at his right, pensive, but with an occasional smile flitting across his face. There was bearded Siemel, Tigerman. He was more at home spearing tigres than in the midst of light and bantering conversation such as a group of young Americans will carry on.

Perfilieff prepared himself to make an announcement. Pleasure in what he was going to say did not permit him to make it with the proper amount of nonchalance. He leaned back, took hold of the suspenders on his overalls, and roared.

"Family, I have a surprise for you."

But it was not in the code of the expedition to be surprised. An expeditioner is always prepared. So, no acclamation followed. Only Americana.

"The captain is going to shave off his whiskers", came in shocked tones, from Seimel.

"No, family".

"We are going to get some decent horses," hopefully from Rehn.

"I know," interposed Rossi. "We are going to have ant bear soup. Yes, ant bear knuckle soup. Vovo and the cook went out this morning, early They carried molasses with them. As they went along they smeared the trees

with molasses uhtil they saw a nice fat woggy poggy ant bear. Vovo's beard frightened the ant bear. To keep from falling, it wrapped its snout around a tree. It stuck on the molasses. The cook ran up and tied the snout in a knot, and now we are going to have ant baar knuckle soup!"

Perfilieff retired into dignified silence. Manuel, the table boy, came in, beaming with a platter of - fresh tomatoes. We cheered.

Manuel came in again and placed on the table an enourmous quantity of calves brains. We raised another cheer.

"I'll bet," said Davis, piling his plate high with the, "that Vovo got the brains from those brand new skeletons Jim uncovered the otherday".

"I heard a funny one," Hohnson said. "Jim's workingmen have finally accounted for his insane desire to dig up old bones and pots. They have been discussing that for some time. Today I heard one say in a very authoritative way that it is to make a special kind of soup."

"Why do you want to mess around dead men's bones, Jim? I wouldn't touch them for anything in the world," said Rawls.

I was accustomed, by this time, to Rawls horror over archaeology and his question went unanswered. The banter continued, on to the end of the dinner. It was a nightly affair and anyone might be the victim.

The expedition was frolicsome. Instead of scattering as usual, we collected in the recreation room, to engage in merry-making like a group of school boys! George told what he would do when he got back to Tampa, Florida; Newell told his favorite stories. Rossi explained to a grinning audience how the ant bear fooled the ants, and Davis stood by the Victrola playing record after record of jazz music. In some way, I was inveigled into talking about the Guarani, that splendid aboriginal people who have become the heroes of poets and romantics as well as historians of South America. I told, with much dramatization, of their march from the east coast to the

west, where one of their legends placed the land where there is no death, a romance as entrancing as any that has been written. Hoopes and Crosby teamed together to usher in great levity. Hoopes had a heavy black beard that had been assidously cultivated since his arrival in Matto Grosso. He looked like a pirate of melodrama. Crosby thin and with a full red beard, looked like a religious anchorite. They appeared in the recreation room wearing pith helmets, that of Hoopes fitting very tightly and Crosby's very large so that it fell over his ears. Crosby wore a long coat much too big for him. Hoopes was boots that came up to his thighs. Both were armed with shotguns, binocular,s revolvers, knives and cartrige belts, strapped around their bodies in most incongrous fashion. They came in, hand in hand, stood in the middle of the floor and went through a pantomine of searching for a missing explorer by the name of Petrullo. Someone suggested that the savages would welcome me in the soup pot. That started the dancing. From explorers, they became cannibal savages. All sorts of talents came to light after that. To a lively jazz tune, Johnson clogged in the heavy trench shoes. Perfilieff put on a strong man act, carrying three people on his back, with an appropiate amount of grunting. Rossi and Hoopes sang a duet.

There was a flickering of lights. It was time to go to bed. There was a final burst of merriment. Perfilieff imitated Sousa's "Stars and Stripes Forever". He was the entire band, until the others joined in. Suddenly Rossi leaped, caught a board nailed on the wall, pulled up his legs until his feet were on a level with his head, looked around, making monkey noises, and scratched himself in a good moneky manner. That ended everything. At least one of us became ill from laughter.

Did we go to bed? No. The lights went out, but no one thought of sleep. We gathered again on Hoopes' porch. It was dark but points of red light from cigarrettes indicated where we were sitting or lying on the

on the hammocks. Mr. Ramsay and Mac joined us.

The spirits for burlesque had spent itself. It was dark and quiet. A resounding crash every so often told us that the steers were fighting. Far off there was a glimmer of light. From the same direction came the wailing of an accordian and the softer sounds of its guitar accompaniment. The tune was a fast maxixe, a bar of music repeated again and again. Monotonous? No, that was its charm. It gets into one's system, setting the very blood to dancing. The natives were dancing to it. We could picture the scene inside that dark hut, lighted only by an oil lamp for we had seen it many times. Paraguayans were dancing with the half-breed girls, a fast whirling dance that seems to have no end and no beginning. In and out and about. Fast goes the dance and faster courses the blood. Bare legs, bare feet, weaving patterns on a dirt floor. Rapt countenances, flashing teeth, straight chesty bodies, flitting with power and grace. Manhood. Womanhood.

On the porch a certain wistfulness was felt. Visions came to mind. Barebacked and bare bossomed bejewelled women idling in the arms of black dressed men gliding over polished floors. Smells and perfumes. A cocktail. Also flashing eyes, gleaming white bodies, pressures of hand, whispered nonsensity. Catching romance. That was far away. This was Descavaldos. Let's have a drink. Didn't we say that this was Descavaldos? There was no drink to be had. Oh Boy; In those two words Rossi expressed the hidden feelings of all. Only Mac smoked calmly on, unperturbed. He was resigned and had been so for many years. But he understood.

Swinging hammocks. Flaming tobacco. Relaxed bodies. In the dark. Minds traveling many channels. Temperaments diversified.

Mr. Ramsay talked about the cowboys on the ranch. Trivial insignificant things. Cowboys with Indian blood in their veins. Some one voiced

his disgust with the natives. He said that they have no culture, no ingenuity, no ambition, nor any virtue of any kind. Mac replied to that. A discussion of the primitive followed. The survival of the fittest. That was it. Why should not the fittest survive at the cost of the lest fit? This was defended warmly. Naturally, our own race is the fittest. We agreed on that.

Are we certain of that? Johnson came to the defense of the primitive. He is tolerant, always defending the underdog. We all do that when it really comes down to it, but we like to talk differently. How are we to measure that fitness of a race? Especially when we devise our own scales, to flatter ourselves.

Few of my companions understood the interest I had in primitive peoples. What can they possibly contribute to civilization, they asked?

Chapter X

I left Descavaldos for Cuyabá the following morning. Sam Hoopes and Tupi the aristocratic fox terrier accompanied me. The former was to return to Descavaldos, but Tupi was to be my companion for many months.

As usual the entire population of Descavaldos was there to see us off, men, women, children, dogs, pigs and fowl. As we stood in the closely packed cabin with our heads showing out of the cockpit and the motors of the plane began to roar, our friends ashore waved tattered hats, cheered and the more frolicsome sent a volley in the air. We waved back until Captain Lorber gave the signal to close the hatch. The motors increased their speed, Sauceda climbed into the seat beside Lorber, a bump or two over the water and we were in the air circling above Descavaldos. Straightening our course we headed for Cuyabá.

The land beneath us which two months before had been under water was now mostly dry. It was by no means as beautiful a sight as when flooded. Fields of grass alternated with forests, cut here and there by streams. The birds were not as abundant but we put to flight many a herd of cattle as we flew over them. In forty minutes we were over the city of Cuyabá, causing the usual excitement and pandemonium in its streets and no less on the river surprising again the semi-nude washer-women who went through their customary act of submerging themselves up to the neck in the water.

Mueller was already in Cuyabá having been flown over the day before with part of the baggage. He had progressed in spreading the word that we needed men for the trip north and I was kept busy several hours interviewing young and old men whose only qualification was their

desire to see the north country. For the most part they were a nondescript group, fit for nothing, with romantic ideas about the far north. Every foreigner adventurer in Cuyabá came to see me, making all sorts of wild promises, professing to have secret information as to the location of gold mines and diamond deposits all of which would be at my disposal for a high salary and the privilege of going with me to the north country. Some convinced that I was looking for Colonel Fawcett readily admitted that they knew exactly where he was to be located.

These interviews were prolonged by our inability to keep to the schedule which we had planned in Descavaldos. We had thought that on the following day we would make our reconnaisance flight over the Xingu, to locate some of the villages; on Monday the plane would return to Descavaldos and on Tuesday or at the latest on Wednesday I would start my over land trip to the north country. A quick schedule nicely planned. However, many circumstances intervened to keep me in Cuyabá almost three weeks. It is the sort of thing that happens in the tropics.

For some obscure reason we were not able to fly north on Sunday. Perhaps it was a matter of permits, or gasoline or any of the countless reasons that interfered with one's plans in Matto Grosso.

The plateau, the Brazilians call it the chapadão, is a sandstone formation rising abruptly from the lowlands of the Paraguay river to a height of some twenty-five hundred feet, but it slopes gently away to the northward. The chapadão is the true "sertão" of Matto Grosso, the "wild hinterland". It is the land of fable and legend. It presents such a vertical wall to the south that one can easily imagine peoples and civilization existing on it unknown to the rest of the world. To most people it is the land of romance.

The geographers and historians have helped to perpetuate its fables.

For instance, most maps will show a range of mountains called the Sierra do Roncador, "Mountains of the Snorer", between the Xingua and the Araquaya river. In these mountains are located the Minas dos Martiros, the "mines of the Martyrs", first reported by the Paulista. These are gold mines of course, which no one has been able to locate since, and as a matter of fact, few have ever looked for. Most everyone has been satisfied to accept the legend and to talk about it.

In this same area there is supposed to exist a rich civilization. It is the "lost world" that has caputured the public imagination. In recent years, at least one explorer has been taken in by this story and paid for his credulity with his life. I am referring to Colonel P. H. Fawcett, whose disappearance /~~ten~~ thirteen years/ ago has led to periodical sensational ~~ete~~ stories in our newspapers. He is met with here and there and everywhere, by gentlemen who are modestly willing to lead and expedition to his rescue. Why he has never walked out with these intrepid explorers remains a mystery.

Colonel Fawcett was an Englishman with a record of explorations before he undertook to discover the "Lost World" of Matto Grosso. He seems to have been well-informed about Matto Grosso, but unable to distinguish between legend and fact. He believed in Spiritism and it seems that in the Spirit world there must exist some who are as malignant as some human beings in this. These Spirits told Colonel Fawcett that he would find a lost world in Matto Grosso.

I am not familiar with the details of these spirit messages. I do know that a medium in Cuyabá practiced a great fraud on him. I do know that had he not been made blind by his belief in Spiritism, common sense would have told him that he never could expect to find a highly developed civilization in Matto Grosso; first, the country could not have supported

one; second, if any such thing existed, the early Portuguese explorers and later the insatiable Paulistas would have been led to it. No place where the existance of treasure was a fact in the world escaped the conquest of the sixteenth century European adventurer.

Nevertheless, Colonel Fawcett, his son, and a ygung man by the name of Riddel , arrived in Cuyabá with the firm intention of setting off to the regions of the north. They stayed in the city a long time. Everybody came to know these three and everyone who had any sense, or nothing to gain, tried to dissuade them to no avail.

For instance, Sr. Pecoras, the richest merchant of Cuyabá, who in the rubber days led his men to every part of the state, told me how he tried again and again to make the Colonel see reason.

"I told him," said Sr. Pecora to me, "Colonel, you are an old man, If you lose your life it does no matter. But, your son is young, he is only twenty-one, his life is still ahead of him. For his sake drop this mad venture. You will only lead these boys to their death."

The Colonel held numerous seances in Cuyabá to which the prominent citizens were invited. The Spirits urged him on. I know that one Spirit kept reapeting that he would find his lost world near the Rio Arame. This river does not appear in any published map. When the Colonel discovered that some Bakairi half-breeds who had worked with Major Ramiro Noronha of the Inspectoria de Protecção aos Indios, the Indian Service, knew where this river was located, he became more firmly convinced of the efficacy of Spiritist phenomena, and of the existence of his objective. He did not know, I discovered this accidentally, that the husband of the medium was also familiar with this river. This man, had worked with Major Ramiro Noronha, Knowing that the Colonel wanted to find his lost civilization somewhwere between the Xingu and the Araguaya, he, very

obligingly, supplied geographic and legendary details through his wife the medium. His stock of legendary beliefs is very rich, as I learned. I do not doubt what he was a source for Colonel Fawcett, a convincing informant, since his mental makeup is such that he himself can never tell whether he is telling the true fact, legend or a product of his imagination.

Finally, Colonel Fawcett, his son and Riddel journeyed to the Bakairi outpost on the Paranatinga river. There they listened to more legends, and then set off with one guide. The guide returned, but the three white men never did. No one has ever seen them since in spite of highly publicized acdounts to the contrary. The number of persons that have travelled to the Bakairi outpost and northward are well known. No one who has claimed that he has seen Colonel Fawcett since his disappearance has ever been there.

I shall come back to Colonel Fawcett later, for my trip took me to the same region where he thought to find his lost civilization. It is true that I found unknown peoples there, but contrary to the Colonel's supposition, they turned out to be about the most primitive in South America. They are naked simple folk.

This unfortunate Englishman has become a legend. He annoyed me no end from the time it became known I was going to Matto Grosso until long after the trip was over, in spite of the fact that I have always disclaimed any intention of searching for him. In New York, before setting off, not only I, but the entire staff of the expedition was asked by reporters if we would search for the lost explorers. We answered in the negative. The reporters made us say yes in the stories they printed. On board ship every passenger and every member of the crew talked about it. When we landed it became worse. Everybody we met talked of Fawcett. We went up the Paraguay and met a thousand men who had seen him lately. Would we

give them a job? They would lead us to him. On investigation we always found out that they were liars. Some of them have since made the news paper columsn. There was nothing about our trip that I disliked so much as Colonel Fawcett, He haunted me all the more for my firm denial of any interest in him. Later it happened that I explored part of the chapadão and unwillingly learned some details of his journey from the Kalapalu. I kept this information to myself until several years later, when I became indiscreet enough to publish it in order to put a stop to the claims of an adventurer. His story was of how he met Colonel Fawcett who apparently refused to be rescued unless an expedition equipped with motion picture operators and reports were organized under this man's leadership. It was to be a rescue in style. I wrote the British government what I knew. It was published, and now no matter where I go, some bright reporter supposes that I am setting off to search for Colonel Fawcett.

Our forced stay in Cuyabá, where everyone knew we intended to fly north, where no one had flown before, not only aroused the curiosity of the season but caused a midl wave of conjecture as to the probabilities of our return. Most of them thought that we were going to our death and offered wagers with good odds to back their theory. There were few takers but the more solicitous did approach us to give up the absurd idea.

The following morning a crowd collected at the hotel, another and bigger one at the river and after we had taken off and were circling over the city it seemed to us that the entire population was out in the streets to see us off and to wish us good luck.

Cuyabá is located practically at the foot of the chapadão which we reached int twenty minutes of flying. The countryside up to the vertical purple wall that marks the beginning of the highlands is densely wooded except where a clearing has been made to raise manioc and other garden products

It is well drained by numerous streams, many of which have their origin in the plateau.

A few minutes of flying brought the Moro of San Gironimo clearly into sight. It stood isolated in the plain from which it rose to some fourteen hundred meters, it is said, though it appeared lower to us. It looked like a truncated cone. We kept it well to the right as we flew northeasward.

We climbed high above soft white clouds the kind that invite one to lie on them as if they were of soft cotton. Only a few hills and the plateau beyond showed above them. In fifteeen minutes we reached the edge of the plateau and climbed higher only to find before us another and another step beyond. These were the heights called by the Brazilians the Blue Mountains. They were rather like a series of rocky walls.

Glistening white against the purple of the rocks and the dark green of the forest in the narrow valleys, were numerous waterfalls. The largest of these is the Veo de Noiva, the Bride's Veil. It looked like one, a narrow stream of water falling a great distance down to a narrow heavily forested valley enclosed almost completely by unscalable cliffs. Only on the south was there a narrow opening which permitted the water to flow on to the Cuyabá river.

We kept the falls on our left and the little village of Chapada on our right.

The edge of the plateau was rough with many jagged rocky promontories. One place is so crowded with eroded tower-like rocks that it has been called the "Cathedral" by those who have ventured into this region in their search for diamonds in the stream beds.

There were no clouds over the plateau, only a haze on the horizon that prevented a sweeping view of the countryside. We were forced to fly

at low altitude in order to pick out details to check our course with the information we had gotten from Major Noronha who has mapped a good portion of this region. His work has been done overland and it was a disappointment to him and to us that he was not able to fly with us.

We picked up the Rio da Casca, followed it for some minutes and then crossed it where it came through a narrow gorge flanked by extremely rough promontories. The country to the east of us became increasingly rough. It was wild, badly eroded, but beautiful, and unquestionably uninhabitable. It can not be cultuvated, nor is it any good for stock raising. Its only possible source of wealth lies in minerals. Along its edge to the east and west, diamonds are common which, unfortunately, are generally small and not of the prized variety.

We crossed a long escarpment and flew over open, undualting country from which rose isolted mesas. There was no forest except thin line of it here and there bordering, we surmised, small streams.

After an hour of flying we spotted below us a tiny settlement. One of its buildings had a tin roof. From Major Noronha's description we recognized it as the last outpost of civilization. Simões Lopes the station of the Inspectoria de Protecção aos Indios where the Bakairi Indians had been collected. We changed our course to the northeast theme and soon found that we were on the Amazonian side of the divide. Every tiny stream which we saw now was part of the great Amazon.

Another hour of flying over grassy, rough country brought us to larger streams bordered with wide belts of forests. One of these, we decided, was the Kuluene, and since along its course we expected to locate villages and a phase with sufficient clear water for the plane to land we changed our course to the north again. We flew for another hour however without discovering one nor the other. Since our gasoline supply permitted us to fly only seven hours we were forced to turn back for Cuyabá. One

thing was plain. Our hope of flying in with men and baggage could not be realized. If there was a place at the headquarters of the Xingu where the plane could land it was too far from the Cuyabá base.

Flying back we re-examined the country for signs of aborigines but the only thing we saw was a column of smoke here and there. The aboriginal villages are so well hidden that they are hard to find. In the forest areas of South America it is the general custom to build the villages at a distance from the river and in the jungle. Secret paths lead to it, and there is always a water course known to the villagers over which they can take their canoes. Even if the paths and the water course is discovered by unfriendly peoples there is so much chance for ambuscade that a war party has a difficult time of it.

We had supposed that from the air it would be comparatively easy to locate aboriginal settlements. This was not the case. A village clearing is so small and the jungle towers so much around it that unless is directly above it it is not visible. Smoke is not a sign that there are human habitations there since it may indicate that a clearing is being made or that the grass is being burned.

Our safe return after an absence of six and half hours caused great excitement in Cuyabá; and those who were offering heavy bets that we would never bee seen again began to feel discouraged. Their hopes were revived though when we announced that on the morrow we would make another trip. Major Noronha hurried to the hotel and was as disappointed as we were that we had neither located sufficient water for the landing of the plane nor seen any of the villages. He spent the evening with us going over the maps again.

Tuesday we awoke early and full of hope. We teased each other good-humoredly in our cavernous room until Lorber announced from the balcony that

there would be no flying that day. We crowded at the window not wanting to believe him, but the overcast skies made it plain that we could not. We were in for another period of bad weather.

Later in the morning we went to the Salesian College to consult with its weather man, the only one in Matto Grosso and a good one too. He discouraged us. According to his observations we would not be able to fly north for about a week. That decided Lorber and the rest. Cuyabá was no place in which to spend a week and besides they had work to do at Descavaldos. In the afternoon they took off, taking with them several army officers, leaving me with Mueller and Tupi. On Saturday Fen Johnson and I made our second flight to the Xingu.

On Saturday the weather having cleared, the plane returned from Descavaldos, and with it came Fen Johnson. The next morning we took off again for the Xingu taking a slightly different course than on the previous flight.

All we had to go by in the way of maps were the sketches that Major Noronha had made, but for the most part his observations were wonderfully accurate. He seemed to have possessed the instinct and knowledge of a real geographer. We picked up the Moro of San Gironimo, the Brides' Veil Falls, Chapada, and finally the Indian Service outpost Simoe Lopes. We turned northeastward then and picked up the Rio das Mertes on the far right, a river about which little is known but which has an extremely bad reputation as the name River of the Dead implies. Johnson and I decided to explore it some day.

In succession we flew over streams which we guessed were the headwaters of the Ronun, the Batory and the Viulusen. Finding that the country below us had suddenly become wooded we decided that we had reached the Viuluene and we turned northward following the general course of the river. We kept a sharp

lookout for villages hidden in the jungle, Johnson keeping watch on the left and I on the right. The river below us meandered sharply and offered no clear stretch where the plane could land. We had been flying over three and a half hours and had covered over three hundred and fifty miles from Cuyabá when Lorber signalled that we were going to land. Below us two rivers met, one on the right, greenish in color. We decided that according to Major Noronha's description we were at the juncture of the Seventh of September and the Kuluene. We landed and Lorber beached the plane on the sandy shore of an island in midstream.

We picked up what we thought was the Kuluene River, but we had to fly three hundred and fifty miles from Cuyabá before we found a clear stretch of water where we could land safely. We did so finally at what we thought the junction of the Kuluene and Seventh of September. We pulled up on a sand bank almost in midstream and waited.

Since we had passed Simõe Lopes we had not seen any signs of aborigines, neither villages nor clearings nor canoes in the rivers, only smoke at several points out of our course which we hadn't been able to investigate for lack of gasoline. We lunched and waited on the strip of sand, expecting at any moment to see a conoe come around the bend in the river, or to see an arrow making for us but nothing happened. The only thing that broke the solitude was some bird that kept whistling shrilly. We did hear or thought we heard several calls from the forests that seemed to be signals between human beings, but we saw no one.

All of us were disappointed of course. We wanted to see aborigines. I didn't want to make the overland journey and then discover that the region was uninhabited. It seemed that we were doomed to be disappointed. We

waited several hours watching clouds of butterflies but since we had a flight of at least three and a half hours back to Cuyabá, and it was becoming late, we suspended from a bush several sacks filled with trinkets and pieces of cloth and took off very much disappointed indeed. We hoped at least that the natives passing by in a canoe would see what we had left for them and in this manner convey the idea that we were amicably disposed.

"However, a real thrill was in store for us. As I have said, we had given up the hope of sighting any villages. We were flying the same route back to Cuyabá and having scanned the territory over which we had passed, as we thought thoroughly, there did not seem any chance of finding anything. And yet a few minutes after taking off we discovered that unless one flies directly over the villages, there is not a chance of their being seen, so well protected are they by the surrounding forests. Because of the wind, we were forced to sweep in a semicircle to head for Cuyabá. This circling brought us directly over a little village. Sauceda saw it first. We could hardly make it out; so Lorber immediately swooped down upon it to a few hundred feet. It was dramatic. Naturally we had but a glance at the village, but in one glance we took in a great deal. We counted five long huts grouped around an open spot occupied by a smaller hut; near it stood a structure that resembled a tipi. We made out human figures running madly about. We circled again and saw more. In front of the hut in the center a line of men had formed. They appeared to be tall naked and red from head to foot. Even Their hair was ~~even~~ red. We circled and dived again. The men shot arrows at us with extremely long bows. Not having an excess of gasoline in the tanks, we hovered over the village only long enough to take some pictures and to drop a sack containing several knives, fishooks, and pieces of cloth. Then we headed southward for Cuyabá, much happier than we had been a few minutes before.

We tentatively identified the village as that of the Naravute on the Kuluene River. We felt certain that on the basis of Major Noronha's description we had landed at the mouth of the Seventh of September which flows into the Kuluene. The Major had said that the Seventh of September could be recognized by its green colored waters. The location of the village we had seen was approximately the same as the Naravute in relation to this river. What we did not know and the Major did not know was that at the lower Kuluene also has a greenish color. Since we had no accurate maps, only verbal descriptions of the country which no one had seen from the air, flying was guesswork. It was not until several months afterwards that we discovered our mistake. We had not landed at the mouth of the Seventh of September but considerably further north at the juncture of the Kulusen and the Kuluene. The village we had seen was not the Carib Naravute but the Arawak Yawalapiti.

We wondered a bit also about the excitement we had caused in the village. Obviously its inhabitants had been frightened judging by the way so many ran for the jungle. But we had seen too that the men had not run. They had stood their ground armed with bow and arrow ready to defend themselves against the monster flying overhead. These people we knew, had never seen nor heard a plane before, nor had any knowledge of any machinery. What courage then to hold their ground! I looked forward more than ever to being among them to know at first hand and intimately the sort of people these red, naked human beings, so far removed from modern civilization in space and time, were.

We reached Cuyabá at sundown. As we circled above the city, we could see that we were causing more than the usual excitement. People were out in

the streets and more came pouring out of the houses every second. By the time we landed, a very large crowd had collected at the river front, and as we came ashore, a sort of Brazilian cheer went up. We accepted this reception as a sort of homage, but on reaching the hotel, we discovered our error. The citizens of Cuyabá had given us up for lost when we did not return at noon. While we were waiting for some primitive folk to show up and taking our ease, every one in Cuyabá was discussing our death. The reception was not homage but a genuine expression of relief at our return.

On learning this, we would have gladly played hosts to the entire population of the city but we had to be content to entertain those friends who called on us. Almost the first to arrive and congratulate us was Major Noronha. We were glad to report to him our success in locating an Indian village. Other officials of the Inspectoria came also, including Dr. Duarte who had been very helpful in mapping the trip. All evening long our good friends came to offer their congratulations, army officers, city officials, and even some of the Salesian Fathers who took a keen scientific interest in our undertaking. They operated a weather station and their data which they put at our disposal had and continued to prove invaluable to Captain Lorber during our stay in Matto Grosso.

Had we found good landing on the Kuluseu River closer to Cuyabá, baggage and men would have been flown in. This would have saved many weeks of arduous travel overland that lay before me, which would have suited me well enough, since I had wasted so much time in travel or in idle waiting already. My chief interest was in the aborigines, in their mode of life, not in traversing barren country. However, the landing place was at the limit of the plane's flying range and if we wanted to do any extra flying in the region it would be necessary to have a deposit of gasoline there, which had to be

transported overland. We had to give up the idea and turn to the age-old method of travel, by caravan to the headwaters of the river and thence by canoe. Since, however, we wanted to do more exploration by air over the Xingu, it was arranged that I should transport ten cases of gasoline for the plane. Lorber and Johnson would fly in four weeks later to check on my whereabouts and welfare.

The day after our return from the Kuluseu, Johnson and the plane crew left for Descavaldos. We clasped hands and promised to meet four weeks later at the mouth of the Kuluseu. As I watched the plane disappear westward, I felt lonesome. From now on I was alone without a comrade at my side on whom I could depend. A three month trip in an unknown region was before me and I felt, all of a sudden, my youth, my inexperience, and my responsibility. Not only would my life be in my own hands but I was morally responsible for the welfare of the men whom I would hire to go with me. They, poor fellows, would go along for the sake of a few dollars, knowing full well that they might not come back. No fortune, no scientific treasure lay before them; only hard work and danger. There was work to be done in a hurry, or I might have lost courage to go ahead with the project. In the confusion of hiring men, packing equipment and provisions, and, being polite to those who called on me in the spirit of courtesy, these thoughts were forgotten.

Travel in the sparsely settled or entirely wild sections of South America is made excessively difficult by the scarcity of food. The natives scarcely have enough for themselves and this of such inferior quality that strenuous work for more than a few days is impossible for them. Game is not abundant and certainly not dependable as a source of food. On the plateau

which my caravan was to cross to reach the upper Kuluseu there are no settlements, game is very scarce, and the streams contain no fish. It was necessary therefore to take with us all the food calculated to last three months.

The calculation of the amount to take proved a sort of puzzle involving intricate arithmetic to solve. It all depended on the number of men that would form the caravan, and later would be needed to man the canoes. Our equipment could be transported in large canoes which meant six paddlers. Food for six paddlers for three months would require two more canoes to transport it. Four more men to paddle. Food for four more men increased our load, requiring one or two more canoes, and this meant more men,--more food. By some legerdemain we hit upon seven canoes and fourteen men as the proper number.

Provisions were of a simple kind. We carried no luxuries, my fare being the same as that of the men. Beans, rice, and dry manioc flour were to be our staples. Coffee, sugar, salt, a few cans of milk, oatmeal, concentrated tea, some maté and enough yards of tobacco to last the men the entire journey completed the list of consumable goods. These supplies were carried in sacks except that in two gasoline boxes we sealed emergency rations so weighted that in case we should lose our food in going through the rapids these boxes would float and their contents remain dry for a considerable time. For meat we could only depend on game, fish, and dried beef, charqui, which we would prepare at the point of embarkation.

The rest of the baggage consisted of: eight cases of aviation gasoline; four cases of ordinary gasoline and one of oil for the Johnson outboard motor; ; six cases of trade goods consisting of knives, axes, toys, cloth, cheap jewelry; one small totally enclosed tent; kitchen and personal equipment.

Our firearms included; two .44 revolvers, one .44 rifle, one long range .22, one .20 shotgun, one .410 shotgun. In addition many of the men I employed carried .44 rifles; one had a Mauser, and another a .38 revolver. A fair quantity of ammunition completed our arsenal.

In the way of cameras we depended on a Graflex and a DeUry for motion pictures. The De Vry jammed and the Graflex became useless after forty-eight hours of submersion in fifty feet of water.

Choosing the proper men to accompany us, or rather to make up the expedition, took time and patience. At first it seemed that every one wanted to go, that is, every one but those who had any qualifications for the work expected of him. The first breathless applicant was a kitchen boy employed in the hotel, a moron who for slaving from sunrise to midnight was fed whatever scraps of food were left at the table and was given the privilege of sleeping across the threshold on the bare boards. He begged me to take him away from such slavery, promising to be my faithful servant in return. I was young and not awfully hard-hearted, but I remembered in time that a serious journey was ahead of me and that on my judgment depended its success. A generous tip may have lightened his disappointment. Others trooped in, of all sorts of color and with all kinds of stories. They represented the very dregs of Cuyabá society. I could not take them, and I despaired of finding any one fit to go.

Finally Mueller produced an acquaintance of his who boasted of having been a sergeant in the army and had a cheerful countenance to recommend him. Major Ramiro Noronha recommended three others;--Domingo, a pure black, slow of speech, silent, but loyal, who had served the Major as servant and bodyguard; Ismerio, a small wiry caboclo, clean and cheerful, whose virtues

were dependability, intelligence, but whose knowledge of canoe work was limited; Dom Joao, known to be irascible but somewhat familiar with the route we were to follow, having accompanied Dyott on the latter's search for Fawcett. To these men we were to add nine Bakairi canoemen from the Inspectoria outpost, Simõe Lopes.

Last minute attempts were made to dissuade me from making the trip. Nor were all those who talked with me inexperienced fat burghers. Some of them had roamed the jungle all their lives, but as they said, it was through necessity not by choice. Dom José of the Casa Orlando was particularly upset. He had gathered rubber all his youth and knew the jungle well. I called on him on the eve of my departure. It was a very hot afternoon. He received me in his office, and after the coffee was brought in, he asked me the same question that so many of my friends had and still put to me. Why did I risk my life in such a pursuit as studying savages? I gave my answer as usual which so disturbed Dom José that the thick syrupy coffee indispensable to the comfort of a Brazilian went untasted. Streams of perspiration ran down his fat face to collect in the folds of his neck and then to run on to the already saturated coat. He moved his great bulk the better to see in the soft afternoon light of his office. His drawling voice had no hurry in it as he plied me with questions.

"Why do you want to go among poor naked savages who live like wild animals? " he persisted. "What has induced you to travel ten thousand miles away from your home and now to face hardships of a kind of which you can have no idea and perhaps to risk your very life?

He mopped his face with a handkerchief. "Listen to me, amigo," he continued, "I know the north country. For thirty years I roamed the jungles

for the great god Rubber. Heat, cold, hunger and thirst and sickness will be your daily fare. It would be a crazy venture even if you were to discover the lost mines of the martyrs. But to undertake all that is ahead of you, to visit the savages! It is extraordinary". The old gentleman meant of course that either I was crazy or a liar. "The savages most likely you will never see, though they will dog you every step of the way and some fine day when you feel most secure you may find an arrow thru your body. You will see thin columns of smoke rising here and there, marking your trek across the barren chapadao. At night you will hear cries of animals and birds near your camp. Don't be deceived. Those cries are made by human throats. If you will look carefully in the morning, you will find unmistakable signs of the presence of the savages near your camp. You will paddle day after day down deserted rivers which will delude you into thinking that no human beings are in the vicinity. From time to time you will hear whistles and calls accompanying your journey. That music which you will admire so much is signals made by unknown numbers of bowmen stalking you patiently through the thick vegetation on the banks for the right moment to pick off your men. You will be eaten by insects and consumed by fevers. The snakes, the stingrays, the electric eels, the piranha, will restrict your freedom of movement. You will be tortured by loneliness. "But," he added with a gesture of hopelessness, "I see that you will risk all this". He leaned forward and confidentially whispered, "Tell me why?"

My knowledge of Portuguese was limited; so I hesitated in answering his questions, besides, I knew that I would not be able to convince him; As I made no answer, he called for more coffee and while the barefooted boy was refilling our cups, he resumed.

"I have lived here for forty years. During that time many have come to Cuyabá from all corners of the world, with great hopes of finding their fortunes or of making great discoveries in the wilderness of Matto Grosso. You know, senhor, our country here is rich in tales of fabulous gold mines, diamond fields, lost civilizations. Even the Jesuits are supposed to have set up a kingdom of their own in the north. To seek these things, many have come to Cuyabá and many have left never to return. None has found his dream. Many have been punished for their boldness with broken bodies.

"Our last tragedy, senhor, was the slaughter of a missionary and his family. That was only a few months ago. There was a scientist once who came and who could not be prevailed upon to stay here. He too departed and did not return. Many months later we learned that he had been cut into many small pieces while asleep in his hammock.

"Did you know the Englishman Colonel Fawcett? How many times he sat where you are sitting now talking to me of his dreams! I felt particularly sorry for his son. I would say to him, "Colonel, put away such fantasies, enjoy the remaining years of your life, there is nothing in the north but death. And if you have no regard for your own person, take pity on these boys whom you propose to take with you. One is your son, your own flesh. Both have life ahead of them. You are old, you have lived, perhaps it doesn't matter what death you find. These boys are so strong and tall beautiful men, have known nothing they have a right to live, instead of going into a grave in the mouldy jungle."

"But, no. He would smile and pay no attention to me. I begged him as if the boys were my own sons. It was of no avail. He left for the north. Neither he nor the boys has returned. Instead of his Lost Civiliza-

tion, he found only what the north can give so easily, death."

"There have been others like him, all seeking chimeras all failing to come back, and now you, want to go and you are not even seeking the Pot of Gold, you say. I don't understand. What are you really seeking then?"

In my bad Portuguese I attempted to give the same answer to Dom José that I have given to others who have pressed me for a longer explanation. I said something like this:

"To the Cayabayans there is no region of their states as legendary and awesome as the region of the upper Xingu, but actually its romance is of sort little understood by them. It is to the anthropologist the purest bit of aboriginal Brazil a region in whcih not only some of the simplest cultures can be studied but also their purest form. "

Four rivers, the Ronuro, Kuluseu, Batovy, and Kuluene rise in the chapadão, converge almost at a point to form the Xingu river. They drain an extensive fan-shaped area which, anthropologically, is one of the most interesting in South America. Here the aboriginal population is caught in a sort of cul-de-sac in which it is held by the more powerful tribes that surround it. The way to the forested north is blocked by more powerful tribes who guard the rapids and the fishing preserves; to the east by the wild, bellicose Tapuya or Ges tribes, who themselves have been pushed by the civilized Brazilians, into the area formerly occupied by the stronger and more advanced Tupi peoples; to the west by primitive groups who in turn are feeling the pressure of civilization flowing in from the Madeira. That leaves possible room for expansion only to the south of the chapadão, though even that is partly under the control of the Cayapó; but this semi-desert area can scarcely yield a living for aboriginal hunters and fishermen, and can but serve as a

barrier against the incursion of the white man from the south, a temporary barrier, however, for it is being occupied gradually by cattlemen and diamond hunters.

"The peoples of this area have been but meagrely studied. Few white men have visited this region for any reason, and fewer still with the intention of studying the aborigines. The only published works of any scientific value are the accounts of Professor's Von den Steiner's two trips in the '80's and the observations of Professor Max Scmidt. Neither of these exploring anthropologists, however, visited the tribes of the Kuluene, the object of my study. This river was descended and mapped in 1920 by Major Noronha, chief of the Inspectoria de Proteccao aos Indios in Matto Grosso. On that trip, he discovered the Naravute, Kalapalu and Kuikuitl (Cuicuru) tribes, but has not published any account of his explorations.

To find peoples ~~in~~ living in a primitive condition, unaffected by European civilization, is both important and highly interesting to the anthropologist. One of his aims is to discover how different peoples have solved the material and spiritual problems of life. Too often he gets the opportunity to investigate a primitive civilization only when it has already begun to dissolve before the pressure of civilized arms and ideas. Too often he arrives on the scene in time only to observe a confused mixture of cultures from which he can gather but a few rennants of the once pure culture he would like investigate. Most of the time he is actually observing a rapid and forced change in cultures, without any clear conception of them as they were before the change. He considers it a rare opportunity, one that he highly prizes, when he is able to study peoples whom he finds totally untouched by the civilized world. It is his chance to obtain a fairly clear and complete picture of a different mode of life as lived by a different people - a representation of the

independent social adaptation of a groups of human beings that is unaffected by the mode of life with which we are already familiar.

"The peoples inhabiting the headquarters of the Xingu are practically unaffected by European civilization. Their culture is the purest that can be found on the South American continent, and in many ways the most primitive of those that have survived the four hundred years of strife with the Europeans. Here lies the opportunity of studying primitive groups of the New World that are living exactly the same way as they were at the time of the discovery by Columbus.

"In addition to the purity of these living cultures is the significant fact that in a comparatively small area are found, living side by side, Caribs, Arawaks, Tupi, Tapuya and the still unknown mysterious Trumai. When South America was discovered, most of Brazil, the Guianas, Venezuela and the Antilles were inhabited by an unknown number of tribes speaking languages, the Trumai being an example. Concentrated in this area, therefore, representatives of each major group of peoples that once inhabited half of South America. In this area there is ample material for the linguists, the physical anthropologist, and the ethnologist, material of a sort that is basic to the general anthropology of about half of South America. The tribes living along the Kuluseu and Kuluene rivers, if properly and thoroughly studied, may supply the social sciences with a rich mine of material.

"But, Dom José, you understand that this explanation makes sense, only to those of us who are spending our lives trying to piece together the history of mankind. To us it seems as fantastic that you should have risked your life gathering rubber as it seems absurd to you that I should risk mine to gather a few facts about an unknown people. Some of us cannot understand the pursuit of money, as our friends who are busy with that do not understand our own type of insanity.

"And speaking of that, Dom José, can I count on your truck being at the hotel at four o'clock in the morning?"

Dom Jose sighed, laughed, promised and added,

"If I were only younger and not so fat I'd go with you."

Chapter XI

Expeditions, should set off in an atmosphere of merry-making and if that is impossible, a fitting substitute ought to be found. In the old days the expeditioners went to hear mass, were blessed, were given consecrated amulets and flags. Then at the moment of the departure, there was much excitement, flag-waving, crying, bravado, things which are considered to be signs of inexperience and plebianism today. The best that the Philadelphia expeditioner may have is a crowd of reporters and photographers to attend to him. If he has graduated into the higher class of the explorer fraternity, then he will even modestly disdain that. When he reaches foreign soil perforce he puts on a "poker face". If there is any celebrating to be done it belongs to the common men whom he employs. He must at all time affect a mythical Anglo-Saxon sang-froid, nonchalance. The trouble is, though, that externally, he may be as stone-faced as an Indian but inwardly he is probably as excited as a bridegroom at the altar.

As the hour for our departure from Cuyabá drew near my men became visibly disturbed. The trip was dangerous but that is nothing to a Brazilian "sertanista", or as we would call him, frontiersman. What was more meaningful to them, what caused merrymaking and tears to flow, was the thought of being separated from their families. That called for a great deal of emotion. I have no doubt but that the women wept and my men felt like doing that too. I am quite certain that they tried to stop the woman from carrying on so, but secretly they would have been very disappointed if there had been less of it. No one really minds being told so poignantly that he is loved and will be missed.

Unless one has a well-drilled military staff, and can employ

military discipline, it is impossible to move about Matto Grosso on schedule. Perhaps not even then. Something always goes wrong, someone always forgets. You may rehearse the start of a journey, go over every detail with your men, have everything ready, or so you think, make the men swear by all the saints in their repertoire that they will report at a certain time which is set well in advance of the hour you really intend to start, a sly little plan of yours to cheat the tradition for once and when the times comes you will first wait in amused tolerance, then you complain mildly, later you swear wildly and threaten. Several hours later you are raging and pouring torrents of abuse at everything and everybody, and still you do not start. The hour that you secretly appointed comes and goes finding you angry, sullen and resigned. Several hours later your men, looking very, very sad, and some very, very drunk, will take their places and off you go to an inauspicious beginning of your new adventure. If you keep your grouch it doesn't help matters, since your men out of respect for you will continue to look very, very sad and consequently will go about their tasks very, very slowly. There is only one thing to do. Let your spirits rise, and act as if everything were going well. Then the men will feel ashamed and will work with alacrity. They will sing, they will talk, and will accept you as one of themselves.

You con't conquer Matto Grosso, nor do you master your men. Both have their own ways and the best way to get along is to follow them. After your men feel that you understand them, they become devoted slaves. After all, every Brazilian, irrespective of station in life, considers himself a gentleman, is independent, and though you pay him wages, you dare not scold him any more than you would a friend. They will reciprocate and you all become gentlemen adventurers

with each doing his best. No man can do more than that, and it is useless to scold or to try to make them feel that they are your inferiors. They are not, especially the farther you get away from the cities where book learning has its value, and they know it. However, once you win their confidence, they keep their place, for they know it well enough, and it is part of their code never to trespass. Each man has his own position in life and that must be recognized and respected.

We were scheduled to leave at four o'clock in the morning. On the previous afternoon, all the baggage had been loaded on the truck and, before sending the men off to their families for the final celebration, I had extracted a solemn promise from each one that he would be at the hotel at the hour set. Anyone who would have heard their promises would have been amazed at their ready acquiescence.

"Have no doubts, Doctor," they said. "We shall be here well before four o'clock. We believe firmly in being on time. That is the only way to accomplish anything. Think no more about it. We like to travel early in the morning so that we can avoid the midday sun. You will see that we will be here as you have requested us to be."

Although I had been in Brazil for several months and was used to this sort of thing, I was compeltely taken in. Everything pointed to a departure at the fixed time. I felt a smug contentment about it, too. In all the books I had read of travel in South America, the authors had complained of delays, and I thought that at least once I had given them the lie. This thought influenced my behaviour during my last evening in Cuyabá. I wrote a few letters, visited a few friends, and did not even mind the bombardment of fire-crackers that went on out in the square. It was the feast of St. Anthony and the natives were celebrating it in their

usual way. At intervals, all the church bells would ring loudly and crazily. Giant fire-crackers would be set off and soon a mob would come rushing around the corner, carrying a small image of St. Anthony, which they were taking to all the wells and brooks in and around the city! The image, a little figurine, was immersed in the water, the people believing that in this fashion, St. Anthony was conferring his blessing upon them. In the processions there were usually one or two drums beaten with the hands in African fashion. It was all very interesting, except that I was tired and would have preferred to rest quietly, in anticipation of the work of the morrow.

I awoke at three in the morning and a few moments later was sipping the black coffee of Brazil. For once, Dom Chico, owner of the Hotel Esplanada, had gone out of his way for a guest. The black boy proffering me the cup told me that the breakfast was being prepared for me and my men down below. At three-thirty Ismerio came, looking neat and alert, though later he confessed to me that he felt sad at leaving his fiancee behind. The truck came a little later. All seemed to be going well. These men, Ismerio and the chauffeur, had come before the set hour. I had reason to believe that we would leave on time. We sat, sipping coffee and eating cheese, saw four o'clock come and go, and had no signs of Domingo and Dom João. Dom Chico politely waited with us, though several times he dozed off. A policeman joined us and received his share of coffee. Several bums offered consolation from the sidewalk. Five o'clock came, and my pride began to suffer deflation. Ismerio set off to find Domingo. Neither returned. Six o'clock and a crowd collected at the door, derisive somewhat, expectant, eager to be sympathetic.

Close to six-thirty, Dom João appared. He put on a bold front, claiming that he had arrived at the hotel at two o'clock, and finding no

one about, had gone home again. He was drunk, of course. He told everybody how terrible it was to leave a wife and children behind. We got him up on top of the baggage on the truck, and he was held there by the chauffeur's assistant. As I got ready to mount beside the chaufeur with Tupi, Dom Chico embraced me, wishing me luck; then every one ~~in turn~~ embraced me in turn, including the bums. In Brazil every one enjoys saying goodbye, even to strangers. In the meantime, these good people bet with each other that we would not return from our journey, but they were too polite and too kind to voice their opinions aloud before me.

Finally, we started, after a final farewell to the small crowd that had collected in front of the hotel Esplanada, dashed around corners through crooked, narrow cobbled streets and out of the city! On its outskirts we picked up Domingo and Ismerio, the former so drunk he could hardly stand up, but nevertheless weeping copiously over being separated from his family. In fact, his wife and children caught up with him as he boarded the truck and there was one last heart-rending farewell.

The chauffeur needed no urging to go off again. As far as he was concerned, the sooner we reached our destination the better. We tore along over a sandy road, cut through the forest. It was delightfully cool and pleasant. The chauffeur wasted no time on the road. Though there were men hanging on the top of the baggage, he slowed down neither for sharp bends nor when the truck scraped the trees. The danger that the men were in seemed to have cheered them up, for we heard tremendous bursts of laughter every time that I feared they would be knocked off by some low hanging branches. An hour and a half later we were at the foot of a plateau and then began that portion of the ride that left me feeling as if I had been put into a cocktail shaker.

Climbing to the plateau was the worst part of the journey. On

level stretches, there was the equivalent of a road and riding was almost pleasant. The trouble was that most of it was on an incline. The heavy rains had washed away all the soil and gravel, leaving a jagged rock bed that looked as if it had suffered a bombardment, as indeed it had when the rock was blasted from the sides of the cliffs. The bed had been leveled off by filling in holes loose dirt which the water had thoroughly washed out.

Streams were frequent, deep channels with banks ten feet high. These were crossed on "bridges" consisting of two narrow planks, one for each wheel. The procedure was always the same. We would stop on the bank with the front wheels a foot or two from the planks. All would get off. The chauffeur would examine the planks critically by seeing if they gave under his weight, for getting of course that there was a considerable difference between his hundred and thirty pounds and the loaded truck; he would measure the planks and the truck with his eye to see if they were in line; then he would climb into his seat, say a prayer and dash across. We did not trust these bridges but we never let on. We always walked across and cheered the chauffeur on, pretending of course, that it gave us a chance to stretch our legs.

Neverthelwss I enjoyed the ride. The scenery made up for all the discomfort. The closer we approached the steep wall of the plateau, the more intense purple it became. The green of the forests harmonized well with it. We passed the Porterão do Inferno, Hell's Gate, an amphitheatre of purple walls it bottom covered with thick forests. For some mysterious reason it was infernally hot and we were glad to leave it behind. We passed though moisture-filled valleys and shivered with cold. Finally we reached the top and paused to look immediately down several thousand feet to the valley below thickly covered with forests, meandering rivers, and

distant Cuyabá flashing in the sunlight. How possible it seemed for two peoples, one living on the plateau, the other down in the Cuyabá valley, never to know of each other's existence!

We went on, and soon afterwards stopped at "Burity", a Protestant mission. The missionary did not seem cordial, so after looking at the Bride's Veil, a white stream falling almost two hundred feet over the edge of a precipice to be lost in the dark green of the forest carpeting the floor of the huge basin, we went on.

Our way became easier and soon we were at Chapada, a village of a few houses that marks the fork of the roads. One goes east to the diamond fields of Araguapi, the other goes west to diamond fields of Diamantino and the third, the one we followed, goes north to Simõe Lopez, the Bakairi settlement where it stops. Beyond it there are no roads. Only game trails.

Late that night we camped at Lago Comprida,"Long Lake", but there was no lake at all there. This part of Matto Grosso seems to be well-known to the cartographers, to judge by the number of place names that appeared on the maps. Rivers, ranges of mountains, towns are distributed over the area in such a way as to give the impression that it is a well-known , settled region. The would-be traveler is completely taken in. The trouble is that the cartographers do not distinguish between fact and legend, with the result that if a range of mountains or a town is supposed to be there it is marked down without further investigation. In this case, I was prepared for the fraud after having examined the country from the air. On both of our flights to the Xingu region we had searched carefully for the Long Lake that appeared so prominently on the map. If it existed it would be an ideal base for the plane. We had not been able to find it, but had supposed that the cartographer might have made a mistake of position. Now my men announced that we were at Long Lake, and upon my insistance for an explanation, they took me down to a depression in the ground, saying that although

there was no real lake there, there was always some water. It was, in fact, nothing but a shallow, marshy water hole, a real enough lake to one who travels there in the dry season when there is no water for many miles around.

Making camp was a simple matter that night. A little fire over which we made coffee and our work was done. Some of the men slept on the truck, others on the ground, and several of us in hammocks precariously tied to some scrubby trees that gave promise of breaking under the strain. In fact, during the night I was awakened by some good-natured laughter, directed apparently at Ismerio whose hammock supports had fallen. It was cold and chilly, so we made use of the event to prepare thick black coffee and to get warm by the fire.

We were off early in the morning, racing madly over a sandy road recently built by the Inspectoria. It was absolutely straight for many miles and I had hopes of reaching Simões Lopes some time during the afternoon, when the chauffeur began to have steering touble. The truck did not keep us in suspense very long, leaving the road, and in spite of the efforts of the chauffeur to stop it or keep it going in the direction that we wanted it, traveled some fifty yards into the sparse scrubby bush, and finally came to rest with the right front wheel completely off. A pin had broken off and it took the chauffeur and his assistant some two hours to put the wheel on again. I took this opportunity to examine the plant and animal life of the plateau and found very little of either. There was especially little animal life.

Finally the truck was fixed and we went off again. We had not fone a mile when we came upon five rheas standing in the middle of the road. They were smaller than the pantanal birds but of the same coloration. At our approach, they started to run ahead of us an the road and I was able

to examine their flight for about a mile and then the tooting of the horn frightened them off the road and they disappeared into the bush. They ran with long strides, wobbling a little from side to side, and with their wings partly open apparently both to balance and support their bodies.

The occasion called for merriment and Ismerio had begun to sing a caboclo song when we left the road once more, dashed wildly to the left and came to rest again on the hub of the left wheel, whilt the wheel itself dashed off on a journey of its own. This time the chauffeur looked sad. He had no more pins, he said, with which to put the wheel back on the truck. I had visions of being forced to camp on the spot for a week or more while some of the men could walk to Cuyabá for the necessary part. There was no traffic on this road and it was useless to hope that some one would come upon us. The men and the chauffeur were quite disturbed. Their laughter left them and they stood around gloomily. Fortunately the chauffeur was energetic and he rummaged in his tool kit for something that might be used instead of the necessary part. He found nothing, but he was undaunted. He discovered a nail in one of the boards of the floor of the truck. This he took out. After an hour and a half of hot work, we mountaid again and proceeded cautiously.

We were forced to travel with care, for if the nail broke off then there would be no recourse left. We soon discovered that it was risky business too. For early in the afternoon we came to the São Manuel valley. We looked down upon it from a height and then finally started making our way down to it by a precipitous trail. Had the wheel broken off again, we would have plunged down off the side of the cliff, hundreds of feet high and without a projecting rock or timber to break the fall.

We reached the São Manuel river safely and crossed to the other side on a new steel bridge which had been built only a year before by the

Inspectoria as part of its program to bring the hinterland of Matto Grosso into closer contact with the central cities. We felt better now that the feat of descending into the valley was accomplished, and we stopped in the cool valley for a bit of lunch.

We found a little hut by the bridge, the only human habitation we had seen since leaving Chapada, a distance of one hundred miles. Three dirty half-starved children were busy making life miserable for as many chickens. We asked them questions as to the whereabouts of their parents. The answer was that they were "over yonder". Although we shouted and blew the horn, no one came.

During my entire year in Matto Grosso, I can look back to only one time when I enjoyed bathing in a stream. This one time was in the São Manoel river. At other times and places the water of the rivers was warm and somewhat heavy with sediment and full of piranhas, but this stream was fast-flowing, clear and so cold that it was impossible to stay in it a very long time. In fact, the water was so cold that, although we had been very hot, what with waiting for the chauffeur to make repairs on the truck and not a bit of shade under which we could rest, the men did not plunge in as would have been their usual behaviour. So the dog Tupi and I were the only ones to enjoy the swim in the cold, clear mountain water, for once being able to move about freely, and carelessly with nothing to look out for but rocks and the swift current. There were no piranha in these waters, and I enjoyed myself. When I came out of the water, I found that I had won the admiration of my men for braving the coldness of the water, and they were commenting to each other on the strangeness of my country that was so bleak and cold but that it produced men as hardy as myself.

We went on, and in the afternoon we reached the Fazenda São Manoel.

A beautiful matronly woman, that malaria had given a pallor that but softened her face, welcomed us. A flock of children, girls and boys, attented to our needs. The oldest boy, a lad of twenty, rode in, dressed in a wide straw hat with a string under the chin, tattered shirt, tattered trousers, barefooted but wearing enormous spurs. The other boys resembled him closely. I was introduced to a tattered barefooted old man. He was the school master, the only one in the region, One of the rooms of the hut served as his school room. But he knew Greek and Latin, and mathematics and showed a remarkable knowledge and interest in geography especially that of the United States. He was interested in New York and the latest inventions. I discovered that he talked intelligently upon any subject that might be hit upon. Wonderful old tattered schoolmaster.

Poverty all about us, yet we had to accept hospitality. Thick black sweet coffee that can only be had in Brazil, and later a dinner that was a marvel. After that it was our turn to entertain. For the young people we had a cheap mechanical toy, but the adults found it equally amusing! But the phonograph won everyone. Especially two records, both of caboclo origin. They knew the songs and they played them over and over again and laughed. One was a little risqué, so the girls retired to where they could hear but could not be seen, but the matron remained. It was simple and delightful.

Ismerio had gone off to fetch Totó Bruno, rancher and muleteer, who was to supply most of the oxen and mules for the journey from Simões Lopes to the Kuluseu river. He returned with his man, the two on horseback suddenly appearing in our midst without warning. Though a man of means, Bruno was dressed like the rest. We arranged that he was to leave

for Simões Lopes early the next morning in order to arrive there the same day.

The next morning we said goodbye to our hosts with more than the usual feelings of gratitude for their kindness. That they had been and there was no way of repaying them for their hospitality. Perhaps it was their wistfulness at our departure which affected us. Human beings seldom passed that way and they were sorry to see us go. On our part we felt that the little house marked one of the last links with the "civilized" world. Our waving back to the little group of children, their brave mother, and the tattered schoolmaster continued until we reached the forest and a curve of the road hid them from view.

A few hours later after an uneventful cool drive through a forest, the journey by truck was done. We stopped on the left bank of the Paranatinga river. On the other side about a quarter of a mile away were the white buildings of the post. Along a narrow path leading from the buildings to the river were men and women walking rapidly towards us. Some naked children were paddling across the river to us in clumsy canoes, using any stick at hand for paddles. Everything was serene and quiet. The men began to unload the truck. Tupi scurried around pretending that he was a great hunting dog, but he too was a fraud for he never learned to distinguish between a butterfly, lizard, or deer and he chased everything that he saw. After all smooth haired fox terriers are not hounds, and in addition he had been raised in New York.

The party from the post arrived at the bank. I watched them board the raft and pole it across. They seemed to be expert river people. It was my first meeting with the Bakairi Indians. The success of my trip would depend largely on them and I was naturally curious.

The agent of the Inspectoria, an immaculate young man, mounted the bank to greet me and to invite me over to the Post. He had received his orders from Major Noronha, but he would have done the same thing out of pure Brazilian courtesy. We crossed over together and soon were sipping thick black coffee while a crowd of Bakairi women and children gazed upon me with curiosity. In the months to follow I was to become so accustomed to being gazed upon very much as a wild animal at the zoo that I rarely became annoyed over it, but at Simõe Lopes I felt a little uncomfortable.

The oxen and mules should have reached Simõe Lopes the same day but Totó Bruno failed me. In our talk at the Fazenda São Manoel he had promised to come to the Post within twenty-four hours, but the sun set and he did not come. Nor did he put in an appearance the following day.

During this period of forced waiting I completed the expedition personnel by recruiting nine Bakairi canoemen who have the reputation of being the best river men of Matto Grosso. Formerly they lived along the headwaters of the Xingu and Tapajos rivers, whose courses are broken up by numerous rapids and cascades. On removal to the Post, they did not give up any of their river traditions. The children are taught to paddle from infancy and even as youngsters become extremely skillful in guiding the clumsy, heavy, bark canoes in treacherous waters. The Bakairi paddle is short and the blade is narrow. The paddler employs a short quick stroke, shifting his paddle from one side to the other with every two or three strokes. Steering is done more from the bow than from the stern, the use of the stern paddle as a ruddr not being clearly understood. They resort to poling from the bow when going against the current. Among the Bakairi, as indeed among most South American river people, the women are as accomplished in paddling as the men.

In order to recruit these men I had to make a handsome gift to their capitão or chief. This individual has no real authority, but he had to be

appeased in a social way. Each man was given a shirt, trousers, and a red or blue neckerchief. Their women received calico and cheap jewelry. In addition, I promised them wages as high as I paid the "camarados", as the Brazilian workmen on such work as ours are called. This was not necessary, but I could see no reason why the Bakairi should be paid less. The example of the Inspectoria in fair and just treatment of the aborigines should be a guide to any one traveling in these regions.

A interesting experiment is being tried at Simõe Lopes. The Bakairi, a Carib people, were, a few years ago, naked savages, semi-nomadic, plying up and down the rivers in search of their daily dinner. Nothing much can be said about their economic culture. They lived almost exclusively on fish and cultivated the wild variety of the manioc, a diet supplemented at times with what they gathered in the forests. They constructed grass-thatched houses, made crude baskets, hammocks and bark canoes. Nothing much more than that. Such simplicity places them in the same cultural level with our own ancestors of many thousands of years ago. In other spheres of human activity, they may not have been the equivalent to pre-historic man, but certainly they were far removed from our twentieth century civilization.

What is being tried at Simõe Lopes by the Brazilian government is to convert these people to a modern way of living, asking them, in a way, to leap ahead thousands of years. It isn't as if one individual were taken a little boy or girl, and raised in a civilized community. In such a case, the child would probably develop like any child of civilized parents. But, at Simõe Lopes, it is the entire Bakairi tribe, kept more or less intact in its political and social life, that is being transformed into a twentieth century group. They are being asked to wear clothing, to cultivate the soil

intensively, to raise stock and dairy products, to learn the value of money and to labor for it and in addition, young ones are being taught to read and write. No attempt is made to force them to do these things.

The tribal organization is kept as of old, and the Bakairi lead their own life in their own way. They are not forced to stay at the post, nor in any way are they bound to do as the agent says. The agent is merely a teacher. He talks to them and advises them on any problem that may come up, but it is understood that they are free men and that they are to make the decisions affecting their life at the Post.

What a bewildering world it must appear to them. Previously, if they were successful in the hunt, they feasted, if unsuccessful, they starved. There was never any thought of saving for tomorrow. They had no desire, nor sufficient knowledge, to acquire wealth. They labored for no one. They were naked and felt no shame in the presence of each other, accepting the human body for what is is rather than for what we make of it. In spite of the efforts of the Inspectoria to preseve as much as possible of the old Bakairi social institutions, there is no phase of their life that escapes the inevitable clash with modern civilization. They are forced to watch ruefully a topsy-turvy world in which they have no proper place, although they are encouraged by their well-wishers to become an integral part of it.

The post maintains a school in which is taught reading, writing the rudements of arithmetic and such crafts as carpetering, weaving, tailoring and shoemaking. Generally, if a boy shows unusual talent he is taken to Cuyabá and even to Rio de Janerio to be given further instruction. This education is not compulsory, though most of the Bakairi take advantage of the opportunity. It is the project of the Inspectoria to form good-self sustaining citizens of such groups of the aboriginal population as come

under its tutelage.

The post has a herd of cattle and the Bakairi are being taught the principles of cattle raising. It is the desire of every Bakairi now to own cattle, which at the present time is held in common. No attempt is made to turn the Bakairi into a sedentary agricultural people, It is considered unwise to radically transform their mode of life by tying them down to the soil, when they have been used to a semi-nomadic existence. On the other hand, they are encouraged to practice some agriculture, raising manioc, sweet potatoes, some maize and cotton. Each man clears his own land yearly, and plants his crops.

In spite of the liberal attitude and practice of the Inspectoria the Bakairi have been dying fast. Fevers previously unknown to them seem to decimate them rapidly, though all efforts are made to keep medical supplies on hand and to supply medical attention. Their life is not as strenous as formerly because of the improved methods of gaining a living, and this may account for their lowered resistance. On the other hand, there is no doubt but that at the headwaters of the Paranatinga it is less healthy than in the region of their former homes. Even the tribesmen from the lower Kuluseu who have followed our expedition on its return to the post suffered greatly from fevers upon reaching it, though it was the dry season and there were few insects. Syphilis is prevalent among the Bakairi, acquired by those who have journeyed to Cuyabá and brought it back with them to transmit it to their fellows. This dread malady carries more serious consequences to primitive peoples than to the Europeans. Sometimes it proves fatal, but in general, its debilitaing effects prepare its victims to fall easy prey to other diseases.

There are practically no fish in the Paranatinga, at least near the post. Since beef is obtained only on rare occasions, and practically no

hunting is done, the diet is considerably poorer than when they were living in their aboriginal state. It consists chiefly of manioc and occasionally of rice and beans supplied by the Inspectoria. They live on the starvation fare of most Brazilian countrymen, which are so poor that it is a wonder that the peasant survives at all. This may also explain their lowered resistance to disease.

I collected very little museum material of their own manufacture from the Bakairi. In their transition to civilization, they are gradually abandoning their own arts. Pottery has not been made since their coming to the post, according to them. The huge vessels that they possess either have been brought with them from their former homes or bartered from the tribes on the Kuluseu. It is claimed that the proper clay cannot be found in the neighborhood of Simoe Lopez. They still make reed arrows, an iron nail being substituted for the old bone point, but most of the arrows they use also come from the Kuluseu. For the old hammock made of palm-leaf fibre the cotton hammock has been substituted, but the same open net style has been kept. From the same tribes are bought the mussel shell ornaments worn by both men and women. In brief, almost anything that is found in their village must bear the suspicion that isn't a Bakairi product.

However, they have preserved a few customs, such as filing the upper teeth to a point, wearing under the European clothing the gee string, the ceremonial use of the bull-roarer, and they remember many of their ceremonies, which, however, they seldom perform. For they have acquired the psychology of an inferior people in spite of the efforts of the Inspectoria to prevent it. They look back upon their ancient culture with feelings of shame mingled with a yearning for its revival.

They are a small people but strong, with relatively large heads. They responded well to being measured and to having their blood tested. Of

course each one received some trinket in payment but the whole performance soon became a sort of game with them When I announced the winner of the "competetion" for the largest head that individual became the butt of what I suppose were Bakairi jokes.

Above the heads of the curious crowd of Bakairi who greeted us on our arrival at the Post I saw a man looking young in spite of a scraggy beard. He was a white man, tattered and worn, with the sickly greenish pallor that marks the man who has felt the ravages of malaria. I knew him and was surprised to see him there. His name was Giacomo Anzil, a young italian from Veneto who/I had met in Cuyabá.

We shook hands and he welcomed my arrival at Simõe Lopes in a flow of poetic words. To my query as to what he was doing in such an out-of-the-way place he answered somewhat shamefully that he was bound for the Amazon but that fever had interrupted his journey. Of all the romantic adventurers that I have met no one has equaled this young man in extravagant imagination and futile action. According to himself he was the devil incarnate but actually he was a romantic young poet whose dreams were of such a magnitude that neither he nor the world could keep up with them. Malaria and weakness had defeated him though his spirits remained unconquered. Had he but known something of the vegetation of the country, he would have found water fifty feet of where he passed searching for it. An employee of the Inspectoria, searching for a bullock, saw the man crying, hungry, and thirsty. At the post they took good care of him but there is no physician there and the food is poor. In addition, his despair did not help his illness.

Giacomo Anzil had come to visit me at the hotel in Cuyabá. He was a tall

broad-shouldered young man of twenty-four a native of Udine in northen Italy, one of those odd characters only too common in the interior of Brazil. We had met on my first visit to Cuyabá. He was introduced to me by the Italian consul, with a request that I try to do something for him if possible. I had talked at great length with him about his hopes and dreams and listened to his spectacular autobiography. He liked to be dramatic, especially when we promenaded in the garden in company with the citizens of Cuyabá.

He had told me his story in the public gardens of Cuyabá. The band was playing, opera, maxixe, march, tango. The girls in their best fineries circled around and around. The men looked on. We circled. My companion's voice rose above the tumult. He was excited and as he talked he became more so. The girls looked at him in passing. He was a striking fellow. I noted that he made mental note of the admiring glances that he drew.

His boyhood was spent in the war zone. He was a refugee after Caporetto. The war ended, and his father, who was a major in the Italian army, became a victim of the disillusionment that followed. He committed suicide, bequeathing to his son the revolver with which he had ended his life. Anzil still carried that revolver.

During our conversations it came out that he was deeply attached to his mother, living in Italy. To her he wrote often, and always the letter was in verse. Poor woman! The poems were beautiful, but they must have been distressing to receive, for the ordinary and simple feelings and longings that one puts in a letter when writing to one's mother were in this case so poignantly expressed that to the anguish of knowing the plain fact there was added extra dramatic quality by the very artistry in which they were told.

After the death of his father, the boy threw himself in the new political movement that appealed to youth in Italy, Fascism. He also went about dosing non-believers with castor oil, and breaking heads; so he claimed though he must have been quite young in those days. After that he was enrolled in the army air corps. Aviation for a time, satisfied his restless spirit. All went well until he got the desire to fly over his beloved's house. He took a plane without the necessary permission, burned it, almost burned himself to death, then emigrated to Argentina to escape from the disgrace. He became a reporter and later joined a geological expedition. It was then that he formed the idea of linking the Paraguay and the Amazon valleys with a road, a project that has often been discussed. Apparently he was promised the support of certain organizations to survey the route. He went to Cuyabá but the promises of his backers were not fulfilled. He would not be defeated. He would do it alone, without an expedition. Being a good walker, he formed the project of marching alone to the Amazon. Life? What did it mean to him? Away from his country, away from everything that he cherished, penniless, without ideals that would lead him to the romance that he desired so much, what did it matter? If he succeeded he would at least have proven that he had done the impossible. "Avanti", forward", not backward. It has no value otherwise. What good is my mind if it is daunted and afraid of obstacles? What good is it if it is afraid to lose its casing, the body?"

The Italian Consul suggested that I take him with me, but since he was no woodsman, no scientist, there was nothing for him to do. I could not. But here he was one hundred and fifty miles from Cuyabá determined to continue his journey to the Amazon. Suicide, we said, and it was. He

presented a dilemma. If I were to offer to take him with me in all probability he would be a burden on account of his inexperience, his mental and his physical state. If I did not it was certain that he would plunge into the northen forest to certain death. I decided to make one more effort to convince him to go back to Cuyabá, but after arguing with him for an hour using as a bait a ride back on the truck, I gave up . After all it was his own problem and his own life. The following morning I relented and offered to take him with me. He accepted.

At the end of the second day we received word that Toto Bruno was in the neighborhood with the pack animals. So it was that ~~when~~ I drank the usual cup of syrupy black coffee with extra enjoyment. I had slept soundly, the sleep of those whose mind is at rest and who anticipate happy days. Everything seemed to be properly arranged. My men were chosen, the bullocks, mules and horses were there. There did not seem to be anything in the making which would further delay our departure, and once we left the post I would have better control of our movements. It was going to be a day of action, an eventuful day that would see the actual commencement of our journey.

The sun had not risen much above the horizon when this optimism began to feel false. It began with Mueller. He came to report that we did not have enough animals for the journey. This was a serious matter. Our baggage had been carefully cut to the minimum in Cuyabá. To leave anything behind would disrupt our plans. It called for immediate investigation. I thought, of course, that it was a ruse to delay our departure.

Mueller, Dom João, and Toto Bruno composed my open air council in this important matter, but with the thorough democracy of the Brazilian hinterland, everyone gathered around to form a committee-of-the-whole, all looking sadly sympathetic as if I had lost my family during

the night or was about to die. Totó Bruno had promised me twenty-five bullocks and seven mules, so I began with him.

"Dom Totó," I said, my voice modulated in the customary note of courtesy, "how many animals have you brought?"

"Dom Vicente," he answered in a hollow voice to impress me more, "I did not have enough time, and besides many of my bullocks are not fit for a journey, I have brought twenty bullocks and seven mules."

"Dom Abrahão, you promised me three horses and two mules".

"They are here, Dom Vicente, at your service," he answered proudly.

"Gracias, Senhor. And you, Dom Joã, were told by Major Noronha to lend us ten bullocks from the herds of the Inspectoria. Are they here?"

"Doctor," he stammered, "there are only five here. The others are not fit for use. Besides, I thought that Dom Totó would being the twenty-five. I shall send my own son for five more, and for my own mule. We shall leave tomorrow."

"No," I said, "We will leave today. If the bullocks don't arrive here we will saddle your mule to carry a heavy load of our baggage. I am disappointed in you, Dom Totó. I counted heavily on you to fulfill your promise. If by ten o'clock the other animals don't arrive we shall have to use your saddle mules also".

There is nothing that a Brazilian dislikes more than to use his saddle animals for pack. My council looked deeply concerned and I left them to worry over the matter and to shift the responsibility for the lack of bullocks to one another. Soon afterwards, though, I had the satisfaction of seeing Dom Joã's son whipping his mule into a fast canter towards his father's ranch. Totó Bruno and his men made their way to the other side of the river to round up the bullocks, mules and horses. They had to be swum across the Paranatinga to our side.

Though I was still uneasy and annoyed I thought that no further

obstacles would appear. I was mistaken. Mueller appeared again, crestfallen and sad to report that the Bakairi would not go unless I supplied rifles for everyone of them. Antonio the cook was standing nearby, and of course he became excited. If the savage Bakairi were going to be armed he would refuse to go any further unless he were given a rifle and a revolver. It was clear that my men from Cuyabá, including Mueller, were frightened at the mere thought of uncivilized Indians. I sent for Paghuli. He was reputed to be the best Bakairi canoeman and by common consent acted as their chief. He stood before me, immaculate in appearance, with an embarrassed smile on his clean face. He laughed when I explained to him the difficulty and had shown him our armaments.

"It would be fine", he answered,"if we all had guns, but it is not necessary. We shall carry our bows and arrows with us. Two of us have rifles and you have enough to protect us. We trust you."

I was pleased to hear this, though I suspected that they really trusted themselves. The Bakairi have been good fighters, following the tradition of the Carib tribes that overran northern South America. This was the first instance that made me suspicious of Mueller. This complaint had little if any foundation and it showed that he was not to be trusted in handling the personnel. The morning passed, in fact, with Mueller bringing complaints or reasons why we could not start. I laid it all to excitement and excessive zeal.

From time to time in this narrative I have told of exasperating delays occurring in spite of any amount of careful planning. They were inescapable. The more one rejoiced over the thought that at last everything was ready, the more certain it was that something would happen to mar the well laid plans. It was as if there were a malevolent power pur-

suing us everywhere, making its presence known as an antidote to smug contentment over a job well done. I do not recollect any other time when I have been closer to believing that Satan exists as an invisible all-powerful personality entering into the bodies of men and beasts.

The missing animals had not arrived at the Post by eleven o' clock, and I had to listen to all sorts of fantastic schemes proposed by Mueller as substitutes for the original plan. This German expatriate did all he could to get me to either postpone the trip or give it up altogether. He suggested, for instance, that I should leave him behind with half the baggage and that he would follow as soon as the animals could be obtained, in a week or ten days. I did not listen to this suggestion, but I did not discourage him from making others. Later he returned to tell me in an awed voice that the Kayapo Indians were on the warpath and it would be lucky if any of us would ever come back alive. He urged that I ask the government to assign to us a squad of soldiers. I do not remember all the conversations we had, but it was an ugly and disgraceful morning for both of us.

At twelve o'clock the animals were all there and I gave orders to proceed with the loading. For the first time that morning the protest that arose had some sense to it. To start a journey at midday was the height of folly. It was exceedingly hot, and since several hours of day light were needed for the bullocks to feed, we should not have started them. But I knew that if we waited until morning, we ran the risk of further delay. I held firm to the decision to begin the journey at once. By this time, the Bakairi women had aroused their sentiments of love for their husbands to the point of begging the later not to go on such

an arduous and dangerous trip. I could see that the men were beginning to be influenced by the pleas of the women and were wavering in their determination to go with me. It was evident that the sooner we left the post the better. The loading began.

The morning troubles were not over yet. I had in my employ for the overland trip to the Kuluseu, Mueller, four men from Cuyabá, the Italian youth Anzil, nine Bakairi, Totó Bruno, and six muletters under his direction. With such a formidable array of men, it would appear that the loading of the twenty nine bullocks should have proceeded at a rapid pace. It would have if all of the men had worked, but that was not the case, We were in Brazil, after all. Everybody who could possibly think of a reason, got out of working; and almost any reason would do. Anzil knew nothing about packing and being considered socially above the rest was not expected to touch a single thing. This applied to me also. Mueller was to act as my personal assistant, his duties being to supervise the men and the work; manual labor was not expected of him except if there should be need. Dom João had been accustomed to authority over the Bakairi and therefore kept away from any work which would make him lose caste. This applied also to Totó Bruno who was a man of consequence in that region. And my Bakairi refused to have anything to do with the loading, claiming that their work began at the river, since they were canoemen, not muletters. Applying a little arithmetic, we see that there were only nine of all my company who could be utilized in the work immediately before us. Exhortations, proffers of bribes proved of no avail. The work went on slowly! My impatience had only the effect of somewhat confusing the men, already in a high pitch of excitement over the

imminent departure. The only thing to do in such cases is to philosophically stand aside and observe, hoping for the intercession of some saint or other to solve the problem. But no saint was aware of our existence that day. The bustle and confussion continued. Hours passed in the enervating heat and nothing much happened. Even the phonograph that had been scratching all morning in order to keep a pretense of gaiety had lost its fascination for the crowd. Finally, things came to a stand-still altogether. And there was Mueller before me again, explaining that we would have to postpone the start until some other day. This time there didn't seem to be any solution for the difficulty.

Oxen do not carry heavy loads and one has to be exceedingly careful about the packing. In the place of kayaks, the natives use rawhide packs made by themselves, which are strapped, one on each side, to a grass-padded pack saddle. Mueller came to tell me that we did not have enough of these. Dom João had sent the bullocks, but they had come without the necessary packs. Therefore we could not start anyway. This time his story was true. Calling Dom João to task for his negligence did no good. To all appearances, the gloom about me deepened, but I knew that, inwardly, the men were rejoicing at my discomfiture. In fact, some of them proceeded to unload those bullocks that had been gotten ready.

I was about to lose my temper altogether when I was saved from such a social calamity by Dom Abrahamão. This individual deserves a few lines of comment. He had promised me three horses and a mule with saddles and had kept his word. He had stood apart, watching everything, silent and courteous, waiting to see us off before returning to his ranch many miles to the south. He came forward now and energetically took a hand in the proceedings. With grave humor, he scolded the muleteers, tropeiros as they are called, for not knowing their business any better, and incidentally

here was a Brazilian who was not afraid to do manual labor in spite of his social position. The baggage was re-arranged. Within an hour all was ready. When Dom Abrahmão embraced me, following the Brazilian style of saying goodbye, my response was more than a courteous gesture on my part. It carried with it real appreciations for what he had done.

When it became obvious to everyone that it was no use to hope any longer that our journey would be put off until the next day, its invevitibility became accepted and social barriers were forgotten. Everybody participated in the work. In fact, a sort of sigh of relief went up. Countenances became calm. Ribald jokes filled the air, until gaiety took the place of the sullenness that had prevailed all morning. All were infected with the spirit of the occasion, and off we went, after every one had embraced every one else, at two o'clock in the afternoon.

We travelled only two Brazilian leagues that day, that is about five miles, but I considered it excellent progress. Camp was made at the site of the old Inspectoria Post. The mules and horses were hobbled, the oxen let loose since these animals are so well trained that never wander away during the night. Our dinner of rice, beans, manioc, charqui and coffee had a special flavor for me in that it was our own. Swinging in the hammock listening to the soft chatter and occassional burst of laughter from the men I felt content. Our journey had tryly begun.

Chapter XII

Something in the landscape and the air of the chapadão turned the hard seven day's march to the Kuluseu into a gay affair. The caravan went along slowly, for pack oxen are of a slow gait and feed as they go along. The men who were not concerned with the driving of the pack animals went afoot. The going was rough, but on that account we led such a leisurely life that not even my native Brazilians could find fault with it. Nor could I, in spite of being accustomed to a more active existence, help but enjoy the clear skies, the high winds and the great silence.

Mounted on a slow-moving horse in a wild country barren of all the discords of modern civilization time seemed to be limitless. There was change in the landscape, but it took place slowly and, as it were, carefully. It seemed a silent world at first, but soon my ears began to catch the rumbling of a whole symphony. Later they sought to isolate every little sound, to interpret it and to relate it to the total. The wind played on the tall grasses, little animals dashed rapidly at our feet, birds took to flight seeking the safety of the skies contributing their music of swift moving wings and song before disappearing, and above was the hum of insects, restless and persistent. My eyes wandered over the landscape taking in form, mass, color, and distance. There was the limitless blue sky above us, a world in itself, cloudless in the morning, dotted with small fleecy white masses at noon, rich in tones of gold and crimson at sundown. The grasses changed color with the hour. Covered with mist in the morning, upon its lifting, there was a carpet of green, gold, and mauve, to fade into grayer tones in the sunlight but to reappear in rich and mature tones in the late afternoon. Little swift flying birds would flash by adding their rainbow hues to the sky. Looming about us, there was the static purple of escarpments and protruding rocks. There was the smell of dry earth, the perfume

of the cool brooks guarded over from the hot sun by bowers of crimson and golden flowers. All these things the body took into itself, receiving, learning, refashioning, becoming ever more sensitive, and wiser.

The forty-two animals and twenty-three men marching in single file would come creeping towards me, one of the tropeiros in the lead, those in the van creeping down into the valley while the rest were still coming over the crest of the hill, a long line of oxen, brightly caparisoned mules, and finally the Bakairi carrying their bows, arrows and rifles with their naked long knives, facaões, slung from the shoulder. Very often I rode ahead alone to scout for game, then stopped for the rest to catch up with me. The second day Black Domingo set a style of personal decoration which made the men look as if they were carrying bouquets of flowers on their heads. I had given him, as well as the rest of the men, a large red kerchief. This he wrapped around his head. On top of it he wore a battered old hat. With his solemn black face he looked funny enough to draw the good-natured banter of his comrades. He not only took it in good part but on the second day out he began to ornament the hat with all sorts of brightly colored flowers that he picked as he walked along. This set the style for the other men with the result that each vied with the others in building up more gay and fantastic headress. Even the stolid Bakairi joined in the fun.

Sometimes an ox would stray off the line or engage in nonsensical battle with one of its fellows which always aroused much shouting and running to and fro. At other times some wild voice would burst into a Brazilian melody as wild as the landscape which seemed to form part of the wind and the deep sky. Anzil now and then also raised his voice in melodious songs of his native land. An occasional joyous barking of the dogs, who never ceased

leaping high over the grass in constant lookout for game, would set the men into a run. A shot and we would be assured of meat for the pot that night.

We were driving along a black yearling for slaughter on arrival at the Kuluseu. This animal caused much hard work and amusement though it must have led a miserable life. A piece of cow hide was tied over its face like a mask, and the poor fellow could do nothing but follow its fellow creatures with the packs. It seemed to be possessed of an unconquerable spirit, however. It was always ready to fight man, dog, oxen, or mule, in fact, whatever it encountered on its path, in spite of the fact that it could not see where it was going or what it was fighting. With its short horns it was no match for the longhorns, much bigger and heavier animals, but it fought willingly and desperately and kept the whole caravan on the defensive and in a turmoil. It always encountered much difficulty in crossing streams. The men tried to drive it across the fords or bridges prepared for the rest of the animals, but they seldom succeeded. The result was that it would plunge knee deep in mud, struggle over slippery rocks or try to climb vertical banks. Its spirit and its helplessness won the good humored sympathy and respect of the men, but for all that, no one suggested lightening the death sentence that hung over it.

We followed one of the trails cutting across the plateau, used by the aborigines in their wanderings for game and war. Primitive peoples roam a great deal and not always for a utilitarian purpose. They like to go from place to place, hunting as they go along. Very often they visit other tribes, in the spirit of peace or war as the case may be. The numerous trails cutting across the deserted chapadão in all possible directions are witness to this activity. Many of them are primarily game trails, but that does not prevent the nomadic aborigines from using them.

Viewed from the air in our flights to the Xingu, this country had appeared as a vast grassy, rolling plain with thin threads of forests marking the water-courses, escarpments rising abruptly from it, and a waterfall here and there reflecting the strong sunlight. I found it now considerably rougher than we had supposed it to be. There seemed to be no end to the low stony ridges at the foot of which flowed small streams hidden away under blankets of vegetation. These were true oases, cool and colorful, contrasting sharply with the harsh barren country above.

As we moved eastward and slightly to the north, it became frequently necessary to build bridges for the heavily laden oxen across the small but steep-banked streams. In spite of their great shoulder strength, oxen have weak backs and when carrying a load, a misstep may bring disaster. We could not afford to lose any of these animals, having none for replacement. Banks were leveled and rough bridges made whenever there appeared to be the slightest danger of an accident. Under the hot sun, this was hard work, but in general the march was a pleasant one.

The start in the morning was made at about eight o'clock, unless one of the mules had wandered too far off during the night in spite of being hobbled. While the packing of the animals was going on, the cook was busy preparing breakfast, each man receiving before the start a mountain of beans, rice, the gritty manioc flour, and coffee. No restrictions were placed on rations. Each man could have as much as he wanted. For the day's march each man was given a bar of "rapadura", brown sugar put up in cakes that looked like coarse soap. The Brazilian camarada likes nothing better than this sweet food. Finally the animals would be started on their way with much shouting, riding around, and dogs barking. After every one was on the

move, I took my place at the head of the column with Tupi following close on my horse's heels.

The caravan was practically in charge of Totó Brune. The Brazilian "tropeiros" or muleteers know their business well and resent any interference. I found it best to merely set the hour for departing in the morning and making camp in the afternoon. The details of loading and unloading I left to Dom Totó. He did his job well. Though he had failed me in the matter of supplying the agreed number of oxen, once we left Simões Lopes he worked indefatigably and took great care not to delay our march. The men under him responded to the work in hand cheerfully. Once we left camp, my job was merely to keep at the head of the column. I was the "capitão, the "captain", "leader", "chief", and as such my place was to lead.

A low fog hid the tall grass from sight at sunrise, but soon afterwards it would lift. In the early afternoon would appear white clouds in the skies that had been perfectly clear all morning, enough of them to enhance the beauty of the sunsets and no more. The region is windswept, so that though the sun was hot enough, the heat was never unbearable. Camp was generally made in the middle afternoon, by some stream, in order to give the oxen a chance to graze. In addition to having water close at hand, we could find some shelter under the thin forest growth that bordered it. Skies were invariably clear at night. It never rained, but the dew was unbelievably heavy during the night. All personal belongings, to be kept dry, had to be put under the cover of the hides used to help keep the loads on the oxen during the day. Our blankets were almost wringing wet by morning. The temperature fell so suddenly that few were able to sleep after midnight, most of us preferring to huddle around the fire, to talk and drink coffee,

which, after discovering that it was being prepared and drunk surreptitiously in the belief that I was asleep, I allowed the cook to dispense freely provided he made sure that I received my share. We had enough of it to indulge in the vice to our hearts' content.

After camp was made, I was more busy. I was the spiritual adviser, as well as the doctor. The Bakairi, without much to do during the day except to walk, had to be cheered on. They felt despondent at leaving their families behind. The prospect of visiting their former country was an incentive to them, and it helped to keep them with us. They might have suddenly decided to go back to Simões Lopes. Primitive peoples are independent that way, and had they felt insulted or neglected, they would not have hesitated to abandon the caravan. My interest in their language and culture helped to keep them loyal. They were distrustful at first and taciturn; until it began to dawn on them that I had no other motive than to reduce to a written record their ancient customs. This came slowly and, in fact, it took many weeks to win their confidence completely. Travelling over a rough rocky country, most of the men had wounds to show by nightfall. These had to be medicated. They never were serious, but were time consuming.

The portable phonograph, the only luxury that we had, helped the men to pass the long evenings in an atmosphere of ribaldry. The records included a number of popular Brazilian love songs and these were a source of stimulation to the fertile bawdy minds of the camaradas. Few of the men had ever seen a phonograph before, and none had ever owned one. Those who had come from Cuyabá had listened to Dom Chico's at the Hotel Esplanada, who kept his screeching practically all day and most of the night, but the rest of the men were less familiar with it. To the Bakairi it was entirely new. It was

a simple pleasure to all to listen to it, and it became a nightly ritual for one of the men to ask permission to play it. I always granted it, of course. For myself, I had included several favorite records which the men played for me as a token of their desire to please me. They preferred the Brazilian love songs, though.

The camaradas behaved well except Antonio the cook who began to complain. Mueller, on whom I had depended so much, began to sulk. The more we penetrated Indian territory the more apprehensive he became. Anzil had troubles of his own. Daily he gained in physical health, but mentally he was far from cheerful. Despondent over his failure to reach the Amazon, he exaggerated his failure to the point of making me realize that something had to be done to cure him or be sent back. I put him to work in addition to talking with him. The results of my efforts to bring sanity back to his sick mind will appear later. At this time the two white men on whom I had hoped to depend in a personal way were on their way to failing me completely.

At practically every stream we crossed, Mueller and Antonio searched for diamonds and gold. They would dig in every hole on the rocks in the bed of the streams, carefully examine every handful of pebbles for a glistening piece of carbon, or would scoop handfuls of sand hoping to find the glistening yellow of gold. They never found either diamonds or gold but their feverish search never abated.

The banks of each brook were gardens of brilliantly colored flowers. Tall burity palm trees marked the course of these bubbling streams. But clouds of insects were there too as a sort of welcoming committee. Stingless bees walked on the face leaving a sticky liquid behind, "lampiolhos" entered the nostrils, the ears, and the mouth if one was careless enough to open it, "piums", little black flies left tiny black spots where they bit.

The only consolation was that there were no mosquitoes.

Occasionally something happened to draw a laugh even from the usually non-committal Bakairi. Anzil who was riding a horse too thin, too small, and too tricky for him found himself rolling down a bank and in a moment in the brook below, while his mount began to feed nonchalantly on the level ground above. After that Anzil walked. His long legs, he claimed, were equal to any troop of horses. He was a good walker too, but that did not stop the good natured chaffing from the Brazilian "camaradas". Antonio, who saw a Kayapo behind every bush and rock, came in for a relentless ribbing from the men to whom the countryside was an open book. He was a dark, thin man, with too voluble a tongue and too willing to talk about his own bravery. He was not even a good cook. When one day he swore he was within a stone's throw of a large group of Kayapos who chased him back to the caravan, his fate was sealed. After that everybody discovered Kayapos everywhere.

Sometimes we surprised deer that bounded off before a shot could be had, though several fell to our guns. Once Tupi roused a tapir, the other dogs joining in the chase; it was bayed and killed, a happy event, for it supplied us with meat for two days. A puma one day caused a great deal of excitement. Upon seeing it, almost the entire personnel gave chase, whirling lariats shooting arrows and guns, whooping and laughing. It was finally killed, and eaten that night. Several mutung birds whose meat was found to be excellent were killed in the jungle patches that bordered the streams.

One day Evariste, one of the Bakairi, and I were ahead of the caravan when we saw on the crest of the next hill a deer. We needed meat, but it did not seem possible that we could get within gunshot of it. There was neither bush nor any rise of the ground under cover of which we could approach. Evariste asked for the loan of my shotgun. Curious to see what he

would do, I gave it to him. He had never used one before, but he was familiar with a rifle. Taking off his rubber sandals, he advanced slowly towards the animal, making no sound, and keeping his eyes fixed on the quarry. The slightest movement on the part of the deer caused him to stop and stand stock still. As soon as the animal returned to its feeding, Evariste advanced some more. This went on for a long time until he was within ten yards of the deer and in full view of it. I believe that if it had not decided to move away, Evariste would have walked right up to it. The Bakairi never waste a shot. As it was, the animal fell an easy victim.

We passed near two village sites that the Bakairi identified as Kayapó. There was no time to excavate for artefacts, however, as we had to keep our schedule with the plane. We saw fires and columns of smoke on both sides of our line of march and ahead. These were also attributed to the Kayapó. The Bakairi were certain that we would be attacked by them at the first opportunity.

The Kayapó are an elusive people. Nomadic, they seem to range over a large territory lying between the Rio de los Mortes, the Araguaya and the Upper Xingu, keeping mostly to thinly forested savannah country of the chapadão. They are supposed to be intractable, valiant, and dangerous. They attack the diamond miners, the ranchers, and the more sedentary tribes of primitive folk indiscriminately.

It would have suited me well indeed to have followed their trails and to come into friendly contact with them, but traveling with a watch on my wrist, as it were, imposed by the arrangements I had made with my companions at Descavaldos, this was impossible. In our plans we kept the psychology of New York, that of doing as much as possible in the shortest period of time. It was the only discordant note in our march to the Ku-

luseu.

I had time at my disposal, a great deal of it, but I could use it only to look, listen and think. I was cut off from my men, somewhat, by their respect for the capitão, and for some days I traveled with them, but in solitude. I did not mind. There were many things I wanted to examine at leisure in the world about me, and there were many problems to occupy my thoughts. Riding across the barren country under clear skies or lying in my hammock in a world of deep silence and soft moonlight at night, I could review my life and measure what I had experienced at my ease. Such daily indulgence in introspection led me to demolish many castles and to build simpler ones; which I hoped would have better foundations. What happened was that the many acquired vestments of civilization dropped off until I thought I was reduced to only the garment of my own personality. I began to revaluate the world then.

Romantic Giacomo Anzil helped this along. He needed desperately a new base to stand on. Obviously, his egocentric despair had to be forgotten if he was to return to a more realistic way of thinking. Whenever an opportunity to lead him on in this direction presented itself, I took advantage of it, but often I came out second best.

I was watching the caravan one day when Anzil came up the hill. Tall and thin, riding a white horse that seemed too small to bear him, he looked the part of some Quixotic knight-errant. With his usual flurry of poetic language, upon joining me, he launched into an extravagant eulogy of the chapadão, which "makes us feel stronger", "almost more human", "induces new forces to enter into our being", "beggars privations and suffering in the path that leads to human glory". I chided him a little for his romanticism, calling to his attention that it didn't quite fit with the spirit of modern

times.

"Yes," he answered. "I romanticize the world, but you as a scientist and a modern are not the one to cast aspersions on the poet.

"Look around you. How can you deny that nature is a romance in itself and that you are engaged in doing nothing else than striving to discover the plot?

"You will agree, I think, that it is the fundamental romance of our existence on an unimaginably huge scale, before which all our human efforts at creating something are insignificant. What is its secret that it has proved impossible for man, after thousands of years of striving, to understand it, or even to conceive of its dimensions? Actually, man being the hero of the romance has helped to complicate it. What a sublime absurdity--to have the hero striving to understand the complex pattern of which he is a part,--in other words to understand himself. As you well know, all peoples which have left records behind have suffered from this urge to discover their proper place in nature. Sometimes they have turned to religion for an explanation of the cosmos and of man, sometimes to philosophy, sometimes to science. But no explanation has been sufficiently satisfactory to weather the attacks of new thought. The question arises anew. Always there is produced a new explanation, a new synthesis, and always it is destroyed by the onslaughts of the human mind. You scientists thought that you had found the ultimate explanation in evolution. In fact, you fought hard enough to keep it. It seemed for a while that you had found the answer in evolution. But soon your restlessness discovered many disquieting and horrifying possibilities. Not the least of these is the biological blind alley. Is it possible that man has developed along certain evolutionary paths that doom

him to extinction like so many other species? Will man destroy himself?

"But what shall he do, what shall he not do? Is he leading himself to destruction? How is man to travel to reach his goal? Some say it is by introspection, to look within one's self. Others say to turn to God for aid, that only divine revelation can tell the truth. Some of you say let us methodically and empirically investigate.

"What are you doing but investigating this great romance in your quest to learn something of the culture of primitive peoples? You scorn romance and yet, as an anthropologist, you are more intimately in touch with it than any one else. Think of your Bakairi who are about to die as a people. Have you thought how it is to belong to a race that is doomed to extinction as my companions, my Bakairi comrades are? It is like traveling with condemned men--no hope. One knows that life will suddenly stop flowing. And as one approaches a seer on his death bed yearning for his confidences, so it seems to me that you approach these people. What magical wisdom, vision, have they that we have not, which perhaps we have lost? Let us drink from their cup of wisdom, you say. Is it of no significance that we, the white lords of the earth, who are about to destroy them should try to learn something from them? But that seems to be natural to the human race. There is a force, which drives it on destroying the very thing that is needed to shed some light upon those problems that confuse us so and always have. Maybe these peoples are experiments and now they have come to the end of the blind alley. Perhaps, we too may be a blind experiment. Consider how far we have traveled from the primitive oneness with nature, the gulf that separates us. We have even created an ideal that only man made things are worth enjoying. Of beauty we made an intellectual and artificial lady standing up on a man-made pedestal. Yet I, a poet, tell you that beauty springs not from the minds of men.

It exists outside and is there to remind man that above anything that he can create there is something greater.

"All primitive souls seem to feel this. Listen to my Italian peasant singing "Guard'El Mar Quant' E Bello". Can't you picture a rugged peasant, a man of the soil, stained by the soil which gives him life, on some tall rock,looking at a peaceful sea, singing those simple words, "look how beautiful the sea is" ? Appealing to mankind to drink in the beauty that is there for everyone to see and enjoy. Admiration, veneration, rapture, a feeling of warmth, of nearness to the other elements of the world. It is this indentification with nature that is of value. It is a primitive feeling, but it is precisely this going back which is of value. It refreshes, it gives birth to new thoughts and emotions become decadent for lack of intimacy with the good earth. One feels that one is part of a successful experiment. That is the joy that comes upon a member of our race when nature takes him back.

"I romanticize my existence and the world in which I live because I understand neither, but I feel both. I am no scientist, only a poor poet, not good enough to sell my verses. I ask and try to find out whither I am going. My romance may give me the answer. My body, this wind, this wasteland, the clear sky may awaken me to the truth."

I had no answer for Anzil. I have never been able to answer a poet. I don't always understand his language it seems, to me.

As we approached the Kuluseu the Bakairi became more excited. At night they formed a group lying in their hammocks or wrapped in their blankets sitting around a small fire listening in rapt attention to Paghuli their chief who had lived up to a few years previously in the country we were approaching. It was the land of their ancestors, where they had fished

and hunted and cultivated their manioc fields and fought for their land, their dignity and their women: there in large urns their fathers were buried. There their shamans had communed with the spirit world, made magic against their enemies, and their people had danced to the music of the magic flutes in the clear light of the moon.

It is difficult for us moderns, more nomadic than the nomadic primitives, to feel an attachment for the land of our ancestors. My Bakairi were being civilized at Simõe Lopes. There is no doubt that they wanted to be civilized, or at least, to acquire the trappings of what little civilization filters to places like Matto Grosso, but their hearts were not at Simõe Lopes but at this site of their former villages. They yearned for the free life of fishing and hunting, the ceremonial life of the village and the joy that comes from living out in the open most of the time without any more responsibility than to secure the day's dinner.

When we could see the forests which marked the land close to the Kuluseu, Paghuli and Manuelsinho asked me to climb with them a tall escarpment, the highest, they said, of the region at the foot of which passed our trail. It was a hard climb, but it was worth the view that we had from the top. Before us, and we were looking northeastward towards the Kuluseu was a rough, rolling country, grass covered and wind-swept ending in a maze of forest in the far distance. Marcellino spoke in Bakairi to Manuelsinho, who in broken Portuguese, translated it to me.

"Paghuli says that the land you see was formerly the land of the Bakairi, our land. We had our villages there by the Kuluseu river, well protected in the forest frmm our enemies. Our ancestors are buried there, all of them in clay pots. It's a beautiful country with much fish in the rivers. Now where we live at Simõe Lopes there is no fish. We want to

spend a night at the same place where we had our villages. We would like also to show you our caves where we had many dances. No white man has ever been there, and no one knows where they are except Paghuli here and Apacanu. You have been good to us, says Paghulè, and we would like to go there. We are very happy to be returning to our land."

There was no bitterness on the part of the Bakairi, only longing for the land of their ancestors, a land of ghosts of the past and nothing more. They knew that their tribe was becoming extinct, and I know they would have wished to finish their days there on the Kuluseu. But now, and they knew this too, having experienced the crumbs of the civilized loaf of culture, such as the wearing of pants and shirts, eating of rice and beans, and learning to read a language not their own, they could not easily return to their naked, savage life for which, nevertheless, they yearned so much.

We saw no hut, no campfire, nor the remmants of one, which would indicate the presence of human beings in the chapadão. And yet at night the Kayapo came near our camp, and in the morning no sooner had we commenced our march than a column of smoke would start up ahead and to the left or right of us. Later similar columns would appear at the various points on the horizon. Human beings were wandering over the chapadão, obviously, and they were keeping a close watch on us. My men knew it, and they never wandered away from camp alone with the exception of several of the Bakairi who knew the country and whose woodcraft was phenomenal. These always returned with some concrete evidence of the presence of the Kayapo in the neighborhood.

Tupi and I violated the general rule by wandering off after camp was made and we were waiting for night to close in on us. Tupi was indefatigable. During the day he ran ahead of my horse leaping high in the air in order to get his head above the tall grass, eyes, ears and nose

straining to catch a message of the nearness of man or beast. Poor fellow, the wilds were always too much for him so that he worried himself too often over such things as a column of ants, a hole in the ground, a butterfly to which none of the native dogs paid any attention. He never left me except to give chase to anything that crossed his path, but even then, he would not go far. No matter how tired he was by the end of the day, he would leave his self-chosen place beneath my hammock to follow at my heels as soon as he became aware that I was going for a stroll. We would wander off together, alone, I naively thought at the beginning, now stopping to look at a plant, now at a butterfly, now a bird, or whatever we found. Tupi would of course plunge at almost anything, and his disconcertment was indeed great when he came upon an armadillo or turtle which would withdraw within their shells on his approach. He would stand off, the ears cocked up, head twisting to one side, then the other side, stiff legged. Occasionally, he would give a faint hearted bark, leap away and come back to the attack, but, for all that, both turtle and armadillo would not look out again.

We would go on after a while, and soon something else would interest him more.

After several such jaunts, we discovered that we were not alone. Following at a distance and making no sound, would be one of the Bakairi or black Domingo. My men indeed remonstrated with me about this habit of walking off alone, but both Tupi and I had equally short memories. We had come to enjoy Matto Grosso, its sights, its sounds, its smells, and whatever might be lurking behind bush or rock. It called to us day and night, and we did not want our trysts to be held under the burden of fears. The men were right from their point of view, but we were too. I was never able to develop the habit of having a bodyguard around.

Crossing the Batovy proved difficult and caused us half a day of hard work. There was no natural ford where the oxen could cross without running the risk of breaking their legs or backs. The water was not so deep, but the river bottom consisted of flat smooth slippery rock heavily pocked with holes where the water had dissolved it away. It proved necessary to build a ford with branches, for a distance of about seventy-five yards. Even then, the baggage had to be carried across on the men's backs and the oxen driven across with the utmost care. It was back breaking labor and dangerous. That night there were many cuts and bruises to treat.

While this was going on, some of us mounted guard. It would have been disastrous if the Kayapo or any other marauding savages had decided to attack us. We discovered some freshly made trails, which in no way reassured us. When Tupi and I roused a "mutung", the Brazilian wild turkey,—and since we were always in need of meat I brought it down,—the sound of my shot excited some of the men who were sure that I was being set upon by our unseen enemies. Fortunately, the Bakairi wasted no time in locating me, and we walked back in triumph with the mutung to quiet the panic. In all fairness to my camaradas, I must say that there were only four among them who were easily scared, the German, the youth Anzil, Dom João and the other town bred Brazilian, Antonio. Mueller was not so much afraid as apprehensive. The constant stalking to which we were subjected got on his nerves. Had he met an Indian face to face, he would have not minded. But to know that watching us, waiting for an opportunity to attack, were human beings preyed on him.

On the sixth day, we left the grasslands to cut our way through the forest to the Kuluseu a little below the mouth of the stream known as the Arame. It was hard going both for men and beasts, and considerably more dangerous as well as uncomfortable. The ground was rocky and thorny. Branches

reached out to hook the packs on our long horned oxen. Occasionally, an ox would stop in its tracks to present its horns at a poisonous snake barring its way. The dogs roused game which they would have purpued but for the restraining commands of their masters who had no time for hunting. We had to reach the river that day, for there was no feed for the oxen in the forest.

On a narrow steep trail we lost an ox. It slipped and fell. Its pack caught on a branch. All might have gone wild if the black steer had not decided to attack. It was finally driven off, but we were sorry to lose it. It was an exceptionally fine animal and docile. However, there was nothing to do except to slaughter it, which was done. On reaching the river, we dried the meat for future use. This accident reprieved the young masked steer which had been driven along for slaughter on the Kuluseu. We could not eat all the meat that one ox would supply, before spoiling, and if we dried the rest, we would not be able to carry it with us. So the steer had in store for it not death, but another seven days of blind marching and fighting until it reached the Post when it would, one hoped, be returned to the herd and liberty.

We had reached the Kuluseu several miles below the mouth of the Arame. The second stage of the trip was done. On the morning Toto Bruno with his tropeiros and the animals would start back for Simões Lopes and with its departure we would break all connection with the outside world. We would have to depend on ourselves entirely to solve whatever problem might come up, of food, travel, illness, danger. We would receive no news from our families, nor could we send any.

The men felt this as they gathered to look at the waters of the Kuluseu. For the Bakairi, this was a mixed feeling. They thought of the families they had left behind them, but this river was where their ances-

tors had fished, bathed, and paddled their canoes. Further down river they could come upon the sites of their former villages, their cemeteries, and their secret ceremonial gathering places. Most of them had spent some years of their childhood paddling bark canoes on the Kuluseu. Paghuli and Apacanu had lived there until they were young men. It was their river, their land.

For the camaradas and the rest of us it was something different. There were no memories associated with the river. We thought rather of our land and our people which we had left behind. The Kuluseu represented the future, the road to an unknown and unpredictable adventure. There was work ahead and danger. For me, there was a fresh world of experience and knowledge. In the next few weeks I would be among peoples of the past living in the present, and unfortunately without a future. Civilization would reach them some day, slowly, as I was reaching them, but it would engulf and destroy them. I would be among people whose only future was death not only for themselves, but for everything they thought and believed in. In a sense, I was going to assist at the death bed, before their final experience, civilization would come with gifts and promises for a "better" life which they would accept gladly, not understanding their poisonous nature.

For all that, the present was with us. The animals had to be unloaded, the camp had to be prepared. The men, tired as they were, turned to their tasks with a will. Facaões, those long heavy knives which we used for anything from picking the teeth to cleaving an enemy in two, were unslung from the shoulder to clear a large chamber in the forest. All the undergrowth and hanging vines were cut down. The baggage was distributed in such a way as to offer protection from any possible attack and at the same time could be put under our eyes to prevent any pilfering. Antonio prepared his kitchen and soon was offering steaming coffee. The tropeiros drove their charges to a small meadow nearby. Hammocks were slung between the trees. I set up my

medical kit, giving quinine to this man, treated a wound on the next one. And then all was done, all was peaceful. Full of meat, beans, rice and coffee, we lolled in our hammocks smoking the black tobacco of the Brazilian hinterland. The men talked in soft tones until laughter would rise above all suddenly and violently for a moment, and the lazy talk would be resumed. Sleep came easily but not for long. The cold had the men clustering around the fire begging Antonio to give them coffee. I joined them. Tupi stayed beneath the hammock. For once, he too was tired and would not move. More talk and the hammocks again until dawn suprised us still sleepy, but content.

In the morning Totó Bruno started back with the caravan, carrying with him innumerable messages from the men to their families and friends, and we resumed our work arranging camp. The clearing was extended to the river, making for us a large, roomy and clean cavern whose sides and roof were solid walls of vegetation and with only one entrance, a narrow path leading to the river. This became our practice, whenever we made camp, the insects and the moisture being less troublesome in the forest than in the open. Furthermore, we could swing our hammocks between trees, whereas it would have been necessary to set up hammock poles were we to camp on the sandbars. As to the danger of attack by the aborigines, we felt that we were equally safe in the forest. The baggage was piled in the middle of the clearing. In a circle around it we tied our hammocks to trees. The Bakairi made a circle of their own close to the kitchen. Arranging a temporary camp of this sort did not take long, but after a seven day trek across the wastes of the plateau, the men were entitled to some rest. The rest of the day was given over to loafing and the care of personal belongings.

The following day the Bakairi began the search for suitable jatuba trees, for our canoes were to be made from their bark. The men set our early without eating the customary breakfast of rice and beans, carrying with them nothing but their weapons without which they would not stir from camp. Were a man to breakfast before setting out to locate the jatuba trees, he would never find one, they said, and in case he did, the bark would be too thin or too thick or would crack. Therefore, they had to go fast until the trees were found. While making the canoes, they fasted until the end of the day's work, and then they ate only what they considered pure food, in this case, rice, farina and meat. They explained that strictly they should have eaten nothing but piranha and biiju, foods that we did not possess. Sexual abstinence is also necessary during the course of the work, and they further believe that were women in the catamenial period or pregnant, to pass nearby, the bark would split. In fact, after work is begun, no one must approach, and if some one does come upon the workers, unaware that a canoe is being made, he must on no account leave. So strictly are these tabus observed that I myself suffered much inconvenience one day. Once I went to visit the men at work, and coming upon Paghuli as he was cutting away the bark from a tree, I was forced to stay nearby until the canoe was wedged fast in its frame and the drying out processes with fire completed. Then and then only was I allowed to go back to camp.

In the afternoon, they returned with news that several jatuba trees had been located, and also that a trail marked with broken plants had been discovered running almost in circle around our camp, indicating the presence of the unfriendly Kayapo in the neighborhood, a bit of news that was disquieting. Everyone saw to it that his arms were within reach.

For the comfort of the Brazilian camaradas I permitted the making of

a dugout canoe for their use; with this sort of watercraft they were familiar but were distrustful of the bark canoes. Subsequently, I had occasion to repent of my decision and they of their request. In four days the Bakairi made six canoes, two of which were of good size, each capable of carrying an estimated total load of a thousand pounds. The dugout was not completed until the seventh day, and it proved hardly serviceable then. Its capacity was limited to two cases of gasoline, and it gave infinite trouble to its crew in the rapids because of its nonflexibility and great weight. The jatuba bark canoe, on the other hand, is flexible; this feature, combined with the thickness of the bark, diminishes the chances of puncture or capsizing on hitting a submerged rock or tree, which cannot be avoided and happens frequently, especially in the upper waters of the rivers. Such a bark canoe suffers little or no damage where a dugout would either capsize or split. Canvas canoes would tear too easily.

When a jatuba tree suitable in size and in the condition of the bark is found, a platform of slender poles is built around it. Three upright poles are set up forming a triangle around the tree. Cross pieces in which the worker stands are lashed across from pole to pole. The outline of the canoe is then marked on the tree with a machete, and the bark is peeled off carefully by driving in flexible wedges in between it and the wood. The bark thus removed from the tree is bent into the proper shape by building a smoldering fire on its inner surface and by means of poles used as levers on the sides, forming eventually a framework in which the canoe is wedged. The bending in the sides too much is prevented by cross pieces. Sometimes the maker etches out a design on the outer bark. The canoe is a shallow affair and practically flat bottomed, which gives it stability. The bow is open and clay is used along the edges as a bank to keep the water out. The stern is raised somewhat,

but often water enters by it likewise.

The presence of the Kayapó in the neighborhood kept the men nervous and alert. The Bakairi discovered numerous fresh trails around our camp, and several nights they stood ready with their arms when they heard strange calls which to me seemed to come from birds, but which Paghuli and Apacanu assured me were made by the unseen Kayapo. In the morning, we examined the neighborhood of the camp, and sure enough, we found footprints on the bank below us marking where they had crossed the river. On the opposite bank we found the broken shaft of an arrow stuck in the soft ground. There were also many footprints there, all large, showing that our night visitors had not come with their women and children.

One night the violent barking of the dogs and a yelled curse from Anzil gave us a scare. Everyone leaped out of his hammock, some shouting, "Kayapos", to seize whatever arms he had carefully placed within reach before going to sleep, but our flashlights revealed nothing but a huge tapir that had blundered into camp and was still charging blindly in efforts to escape. In its mad career it had bumped into Anzil, knocking him out of his hammock. As we flashed our light on it, the animal succeeded in disentangling himself from the camp, and we heard it go crashing away into the bush. There was much merriment at Anzil's mishap. Few went to sleep again, however. Most of the men huddled around the fire, drinking coffee and recounting for each other's benefit stories of night attacks by jaguars, snakes and savage Indians, and of revolutionary armies that have a habit of rising in Matto Grosso frequently tales.

The danger from a Kayapo attack was real. They have been bitter

enemies of the Bakairi and often attack the more sedentary tribes of the Kuluseu. They never harmed us, but then no one ever straggled off, and, as a body, we were too well-armed for them. I don't think though that they ever left the neighborhood. The men found signs of their presence daily. They were bold fellows. I remember paddling down stream with Apacunú in one of the newly made bark canoes, one day, shooting a mutung and going back to camp. Neither of us saw any signs of the Kayapo, yet an hour later Apacunu went down stream again to fish and came back quickly to report unmistakable signs of these elusive people. I went back with him and found the bank trampled by naked feet, the remnants of a small fire and scraps of fish. During that hour they had crossed the stream, shot piranhas, and feasted on them within a half mile of our camp.

I would have welcomed peaceful contact with them, but not my men. The Kayapo have a formidable and fearsome reputation in Matto Grosso. The week before we left Cuyabá a report had reached the city that three men had been killed by them. Consequently, the men whom I had employed in Cuyabá were a little apprehensive. On the other hand, the Bakairi felling that we held a tremendous advantage over them in being so well supplied with firearms, would have welcomed a skirmish with their hereditary enemies. For them, it would have been a happy occasion. Both the Bakairi and I were disappointed, however, for different reasons, and we cared not at all for the obvious relief of the others.

Many of the legends describing strange tribes, circulated in Europe after the first voyages to the New World, are still current in Matto Grosso. João Climaco was an inexhaustible source for marvelous tales told with such positive conviction that it was hard to laugh at him. This man had lived in the hinterland most of his life but he was endowed with such a lively imagina-

tion that it was impossible to know when he was recounting fact or some fanciful dream. Wrapped in a red blanket, he would huddle around the fire stuttering away fact and myth by the hour to the men who listened out of politeness and because they had nothing else to do. The nearness of the Kayapo aroused him to great achievements of tale spinning. He endowed these people with such fabulous attributes that I wondered what a real meeting with them would do to him. For one thing, the Kayapo have the extraordinary ability of reversing their feet so that one never knows in what direction they are traveling. Their stride is about three yards long, a fact examined by himself. He claimed that they were the bastard children of the Jesuits who, upon being expelled from Brazil, fled to the chapadão, built for themselves an underground fortress-city out of solid rock, and after capturing native women, began the Kayapo. One night we were awakened by a terrific crashing noise much like the sound of an explosion. I had no explanation of it, but Dom João did. He told more of the Jesuits well into the morning hours. The noise, he explained, was caused by the shifting of an immense gold treasure hidden in the secret caverns of the Jesuits.

I suspect that there are some unknown caverns on the chapadão. After this story of Dom João, the Bakairi came to me with the invitation to visit some which, they said, were used by their ancestors to carry out secret ceremonies. They described these caverns as being extremely beautiful, covered with paintings and as being sacred. No white man, they said, had ever been taken there, but since I had come from so far away to study their customs, they would guide me to them. I would have to go alone in the company of three Bakairi. Of course, I was interested, and I came to believe in the existance of the caverns, after questioning Paghuli and

Apacanu. There were two reasons why I could not take advantage of the offer. The trip would take several days, which we could not spare if we wanted to arrive at the mouth of the Kuluseu on time, and I was not sure of the men. Fritz, whom I had taken along as my personal assistant and foreman, was beginning to show a timidity that made me apprehensive of his cracking altogether under the strain, and the rest of the men might suddenly decide to go back home, should I absent myself for several days. I never made the trip, but the Bakairi story has aroused my curiosity to the poist that if our plans to return to the region for further study ever materialize, I shall make it a point to follow the Bakairi to their secret chambers.

I listened to the Bakairi legends with greater interest than to those of Dom João. They said that to the east lived a people called the Phoi who are very small, scarcely over three feet tall. The story of the existence of a pygmy tribe in South America is common, but no one has discovered it. Very small people have been reported by Bolinder from Colombia, and the Trumai whom I met later on this trip were well under five feet tall. Is there anywhere in the South America a pygmy tribe? It is difficult to understand why the Bakairi, for instance, who are small people themselves, should speak of an even smaller race with whom they claim they have had some contact, peaceful and otherwise. They told also of another tribe, the Renehoto, who are gigantic in stature. It is impossible to tell whether these stories have their basis in myths or whether they contain some thread of fact until we have thoroughly explored the remote regions of South America. It is extremely unlikely that true pygmies will be found, but it would be enlightening to know the lowest stature limits of the American Indians.

Chapter XIII

Anzil, with the license of a poet, liked to refer to the seven days we spent fighting rapids as the "Seven-Day Dance of the Seven Canoes". He was new to river travel and knowing neither how to swim nor how to paddle, he spent most of his time painfully making his way along the shore or seated in a canoe, holding on to the sides, while his Bakairi crew shuttled the fragile bark through miles of jagged rocks and swirling pools. For him, there was none of the joys that come to a canoeman when striving with muscle and skill against the mad rush of waters that would dash boat and man to destruction. He was an onlooker at the theatre, participating only indirectly in the struggle of the men against the maddened river. The seven-day dance of the seven canoes left him full of wonder and admiration. He wrote a poem about it.

For the rest of us, it was the hardest kind of labor, with pleasure only when we succeeded in snatching ourselves safely from a particularly rough stretch, and, at the end of the day's battle, when we relaxed in our hammocks. They were seven long days of physical strife that left the men conquerors, but wounded, sick, and thoroughly exhausted. We were glad to reach clear water where we could glide silently, close to the banks, beneath overhanging verdure in an atmosphere of complete peace.

We embarked in the newly made canoes on Monday morning June 13. A mist hung over the river as we prepared the canoes. The baggage had to be distributed carefully, not only in accordance with the as yet unknown capacity of each canoe, but in such a way that the loss of one would not cripple the expedition. Each carried food, trade goods, and equipment. This was work which the Bakairi liked and understood, and they did it cheerfully.

Their bark canoes proved serviceable, but the dugout was a disappointment. Antonio and Mueller had started to make it. Domingo had attempted to finish it. It was excessively heavy, leaked through innumerable cracks, and could carry only one case of gasoline, one dog and two paddlers. There was no time to make another bark canoe, however, to replace it. Mueller had been insistent on its being made, threatening to walk along the bank rather than trust his life to any bark vessel. Now that it was made, he refused to enter it. To river men like the Bakairi this was amusing. They could keep anything afloat. I knew that from that time on his authority over the canoemen was gone. They did not understand his fear, and they mocked him behind his back. It fell to the lot of Antonio and Domingo to paddle the dugout. Antonio because he shared Mueller's fear of bark canoes and Domingo because of all the men, he was the most experienced with dugouts. Mueller had to be content with a bark canoe after all, in which he traveled as a passenger until we were free of the rapids and he trusted himself with a paddle.

The canoes were shallow affairs, narrow and long. The largest two measured about thirty feet in length. The bark was not reenforced in any way. On the bottom a few sticks were laid across on which rested the baggage and on which the paddlers sat cross-legged. They sat so low that it explained the quick short stroke which they employed. The paddling was done entirely into the works at all. At first I tried paddling with a long stroke to which I was accustomed, but I had to give it up. It almost broke my back. There was nothing to do but to let Paghuli who paddled stern to teach me all over again.

We had not paddled twenty minutes away from our camp when we struck the first rapids, and the fresh signs of the presence of the Kayapo.

The Bakairi, stripped naked, went into the water to push and guide the canoes through the channels often obstructed by fallen trees which also had to be cleared out of the way, while some of us mounted guard against surprise attack against the Kayapos. The first obstacle to smooth progress was not serious, and soon we were in clear water again. Not for long, though. About a quarter of a mile further downstream we had to take to the water once more. Our struggle with submerged rocks, trees fallen across the river, swift cross currents, slippery footing was on. Axes and machetes flashed in the sun as we hacked our way through, the Bakairi laughing as they loosed a canoe to the current to be caught by others stationed further down stream just in time to prevent its being smashed or capsized. At other times it was necessary to portage the baggage while the canoes were dragged or shunted through narrow shallow channels. It is a mystery how those fragile bark canoes were not ripped and split in spite of their flexibility.

Watching the Bakairi at work, one could not but admire their skill. It was work to which they were accustomed and enjoyed. They kept in good humor no matter how hard the work or what hurt they suffered. The rocks were slippery, and often they fell, cutting their feet, bruising their legs. In the deeper pools there was the danger of being struck by an electric eel. In the sandy stretches there might lurk a sting-ray. They kept a vigilant watch and many times saved the camaradas from some hurt by warning them in time. To every misfortune, such as being knocked against a jagged rock, the response was laughter. No swearing, no loss of tempers. The Bakairi were in their primitive stride.

In the quieter stretches, we were able to appreciate the full beauty of a narrow tropical river. A wall of dark green vegetation loomed high on each side of us. Giant wild fig trees with heavily buttressed trunks guarded

the banks. A lacework of creepers in bloom lent a fairy land mystery to the dark recesses of the jungle . Hundreds of yellow and green butterflies covered narrow beaches. White birds gazed silently at the river. Capibaras slunk into the water at our approach or leaped ffom a bank to stay submerged until all danger was past. We paddled to within a few feet of tapirs feeding on the baks before they fled into the forest. A puma drinking at the water's edge leaped into the bushes unhurt at the sound of a gunshot in the air. Others played fifty yards in front of the canoes, not afraid at all. We never shot at them. Deep silence, broken only by some bird-call, seemed to go well with the darkness of our passage under the canopy of leafy branches that, stretching out from each bank, almost met overhead.

"Moving in this secular silence, I seemed to be traveling a horrible but sublime path toward my ultimate destiny, " confided Anzil one day. "Only evening with its preparations for food and for rest reminds me that we are human beings traveling in a world of reality, but afterward, there is the silence again, and I return to my dreams."

I could not deny that it was a sublime path. It awakened boyhood dreams of mysterious jungle rivers, full of strange animals, birds, flowers, unawakened to the menace of men. In the early morning and in the late afternoon the river and its banks were crowded with animal and bird life, for which flowering bushes and creepers breaking the evenness of the green made a fitting background. The struggle in the water made us a part of it all. It was a primitive world, and we were primitive.

One morning after the mist lifted Paghuli, paddling behind me, called my attention to a huge snake, the type that the Brazilians call sucuri trailing along behind the canoe, its head not more than four feet away from the stern. It must have measured about eighteen feet in length. It was a beautiful thing, a long undulating orange ribbon enjoying itself in the wake of the

canoe. At about the same time, Apacanu in the bow pointed ahead. Some twenty feet away were half a dozen large river otter, frolicking in the water. For about an hour we traveled that way, otters in front of us leading the way, snake behind us, curious, I supose to see what it was all about. We traveled silently, my hand over Tupi's muzzle to keep him from barking. The other canoes were some distance behind for which I was glad. On the banks white cranes looked on without fear of us, and, even a puma which we surprised on a bit of sand, lifted its head, smelled us and then leisurely stepped back into the forest. Tupi, of course, almost went mad, but I did not relent. He had to keep quiet even if I could not make him keep still. I don't know how far we would have traveled in such company if a stretch of rapids had not interfered. When we were about fifty yards away from the shallows, the otters dived and did not appear again. The snake swam away towards one of the banks. There was nothing left ahead but the struggle with the rapids.

My days were filled with activity now. I paddled, hacked away at wood obstructions, and helped drag the canoes in spite of the remonstrances of my men who would have had me sit in the canoe lolling at my ease. I enjoy physical action, and no Brazilian sense of propriety could cheat me of it. Dom João and Mueller were shocked. I was setting an example for them, a good example, I thought, but a bad one according to them. My working forced them to do likewise.

I thought it a good thing. Perhaps Mueller would forget his imaginary fears and grievances under the stress of physical fatigue. Anzil was made to work whenever it was possible. He knew nothing of river work, and the little he did he found hard. I noticed though he