

From:
Jane Goodall. In the Shadow of Man
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FIRST OBSERVATIONS

ABOUT THREE MONTHS after our arrival, Vanne and I fell ill at the same time. It was undoubtedly some sort of malaria, but since we had been told by no lesser person than the doctor in Kigoma that there was no malaria in the area we had no drugs with us. How he came to believe such a strange fallacy I cannot imagine. We were too naive to question him at that time. For nearly two weeks we lay side by side on our low camp beds in our hot, stuffy tent sweating out the fever. Occasionally we mustered the strength to take our temperatures; neither of us felt like reading so there was nothing else to do to pass the time. Vanne had a temperature of 105 degrees almost constantly for five days, and it dropped slightly only during the coolness of the nights. Afterward we were told that she had been lucky to pull through at all. To make everything worse, the whole camp was pervaded, throughout our illness, by the most terrible smell—rather like bad cabbage water. It was the flower of some tree—I forget its name now—I always think of as the “fever flower tree.”

Dominic, our cook, was wonderful during those days. He begged us to go into Kigoma to see a doctor, and when we pleaded that we felt much too ill to face the three-hour journey in our little boat, he made up for our lack of medical attention by constantly fussing over us. One night Vanne wandered out of the tent in a delirium and fell, unconscious, by one of the palm

trees. I never knew she had left the tent. It was Dominic who found her at about three in the morning and assisted her back to bed. Later he told us that he came along several times each night to make sure his “Memsahibs” were all right.

As soon as the fever left me I was impatient to start work again. Nearly three months had sped away, and I felt that I had learned nothing. I was frantic—in a couple of months my funds would run out. I could not bear the thought of any of my African companions seeing me in my weak state and so, risking official displeasure, I set off alone one morning for the mountain I had climbed on my first afternoon—the mountain that rose directly above our camp. I left at my usual time, when it was still cool, in the first glimmerings of dawn. After ten minutes or so my heart began to hammer wildly, I could feel the blood pounding in my head, and I had to stop to catch my breath. Eventually I reached an open peak about one thousand feet above the lake. It offered a superb view over the home valley, so I decided to sit there for a while and search for signs of chimpanzees through my binoculars.

I had been there some fifteen minutes when a slight movement on the bare burned slope just beyond a narrow ravine caught my eye. I looked around and saw three chimps standing there staring at me. I expected them to flee, for they were no farther than eighty yards away, but after a moment they moved on again, quite calmly, and were soon lost to sight in some thicker vegetation. Had I been correct, after all, in my assumption that they would be less afraid of one person completely alone? For even when I had left my African companions behind and approached a group on my own, the chimps had undoubtedly been fully aware of what was going on.

I remained on my peak, and later on in the morning a group of chimps, with much screaming and barking and pant-hooting, careered down the opposite mountain slope and began feeding in some fig trees that grew thickly along the streambanks in the val-

ley below me. They had only been there about twenty minutes when another procession of chimps crossed the bare slope where earlier I had seen the three. This group also saw me since I was very conspicuous on the rocky peak. Although they all stopped and stared and then hastened their steps slightly as they moved on again, the chimpanzees did not run in panic. Presently, with violent swaying of branches and wild calling, this group joined the chimpanzees already feeding on figs. After a time they settled down to feed quietly together, and when they finally climbed down from the trees they moved off in one big group. For part of the way, as they walked up the valley, I could see them following each other in a long, orderly line. Two small infants were perched like jockeys on their mothers' backs. I even saw them pause to drink, each one for about a minute, before leaping across the stream.

It was by far the best day I had had since my arrival at Gombe, and when I got back to camp that evening I was exhilarated, if exhausted. Vanne, who had been far more ill than I and was still in bed, was much cheered by my excitement.

That day, in fact, marked the turning point in my study. The fig trees grow all along the lower reaches of the stream and that year the crop in our valley was plentiful, lasting for eight weeks. Every day I returned to my peak, and every day chimpanzees fed on the figs below. They came in large groups and small groups, singly and in pairs. Regularly they passed me, either moving along the original route across the open slope just above me or along one or other of the trails crossing the grassy ridge below me. And because I always looked the same, wearing similar dull-colored clothes, and never tried to follow them or harass them in any way, the shy chimpanzees began to realize, at long last, that after all I was not so horrific and terrifying. Also, I was usually alone on my peak; there was no need for my African companions to follow me up and down, since they knew where I was going

to be. When Short had to leave I decided to employ no other African, and although Adolf and afterward Saulo David, the new scout, often came up in the evenings to make sure I was all right, mostly I was completely on my own.

My peak quickly became the Peak. It is, I think, the very best vantage point for watching chimpanzees in the whole of the Gombe Stream sanctuary. From higher up there is, indeed, a magnificent view in all directions, but the chimpanzees seldom move about near the top of the rift escarpment; most of their food is lower in the mountains. From the Peak I was able to look southward over our home valley and also, if I walked just a few yards to the north, I could look down into the basin of lower Kasekela Valley, a thick, almost circular pocket of forest. I quickly found that it was easy to cross the upper Kasekela Valley approximately on the level through a fairly open wood, where on several occasions I came across a small herd of about sixteen buffalo. To the north of Buffalo Wood another open ridge offered a good view over the upper reaches of the narrow, steep-sided Mlinda Valley.

I carried a small tin trunk up to the Peak and there kept a kettle, some coffee, a few tins of baked beans, a sweater, and a blanket. A tiny stream trickled through Buffalo Wood. It was almost nonexistent in the dry season, but I scooped out a shallow bowl in the gravelly streambed and so was able to collect enough of the sparkling clear water for my needs. When the chimpanzees slept near the Peak I often stayed up there too—then I didn't have to trudge up the mountain in the morning. I was able to send messages down to Vanne with whichever of the Game Scouts climbed to the Peak in the evening so that she always knew when I was planning to stay out for the night.

For about a month I spent most of each day either on the Peak or overlooking Mlinda Valley where the chimps, before or after stuffing themselves with figs, ate large quantities of small purple

fruits that tasted, like so many of their foods, as bitter and astringent as sloes or crab apples. Piece by piece, I began to form my first somewhat crude picture of chimpanzee life.

The impression that I had gained when I watched the chimps at the msulula tree of temporary, constantly changing associations of individuals within the community was substantiated. Most often I saw small groups of four to eight moving about together. Sometimes I saw one or two chimpanzees leave such a group and wander off on their own or join up with a different association. On other occasions I watched two or three small groups joining to form a larger one.

Often, as one group crossed the grassy ridge separating the Kasekela Valley from the fig trees in the home valley, the male chimpanzee, or chimpanzees, of the party would break into a run, sometimes moving in an upright position, sometimes dragging a fallen branch, sometimes stamping or slapping the hard earth. These charging displays were always accompanied by loud pant-hoots and afterward the chimpanzee frequently would swing up into a tree overlooking the valley he was about to enter and sit quietly, peering down and obviously listening for a response from below. If there were chimps feeding in the fig trees they nearly always hooted back, as though in answer. Then the new arrivals would hurry down the steep slope and, with more calling and screaming, the two groups would meet in the fig trees. When groups of females and youngsters with no males present joined other feeding chimpanzees, usually there was none of this excitement; the newcomers merely climbed up into the trees, greeted some of those already there, and began to stuff themselves with figs.

While many details of their social behavior were hidden from me by the foliage, I did get occasional fascinating glimpses. I saw one female, newly arrived in a group, hurry up to a big male and hold her hand toward him. Almost regally he reached out, clasped her hand in his, drew it toward him, and kissed it with

his lips. I saw two adult males embrace each other in greeting. I saw youngsters having wild games through the treetops, chasing around after each other or jumping again and again, one after the other, from a branch to a springy bough below. I watched small infants dangling happily by themselves for minutes on end, patting at their toes with one hand, rotating gently from side to side. Once two tiny infants pulled on opposite ends of a twig in a gentle tug-of-war. Often, during the heat of midday or after a long spell of feeding, I saw two or more adults grooming each other, carefully looking through the hair of their companions.

At that time of year the chimps usually went to bed late, making their nests when it was too dark to see properly through binoculars, but sometimes they nested earlier and I could watch them from the Peak. I found that every individual, except for infants who slept with their mothers, made his own nest each night. Generally this took about three minutes: the chimp chose a firm foundation such as an upright fork or crotch, or two horizontal branches. Then he reached out and bent over smaller branches onto this foundation, keeping each one in place with his feet. Finally he tucked in the small leafy twigs growing around the rim of his nest and lay down. Quite often a chimp sat up after a few minutes and picked a handful of leafy twigs, which he put under his head or some other part of his body before settling down again for the night. One young female I watched went on and on bending down branches until she had constructed a huge mound of greenery on which she finally curled up.

I climbed up into some of the nests after the chimpanzees had left them. Most of them were built in trees that for me were almost impossible to climb. I found that there was quite complicated interweaving of the branches in some of them. I found, too, that the nests were never fouled with dung; and later, when I was able to get closer to the chimps, I saw how they were always careful to defecate and urinate over the edge of their nests, even in the middle of the night.

During that month I really came to know the country well, for I often went on expeditions from the Peak, sometimes to examine nests, more frequently to collect specimens of the chimpanzees' food plants, which Bernard Verdcourt had kindly offered to identify for me. Soon I could find my way around the sheer ravines and up and down the steep slopes of three valleys—the home valley, the Pocket, and Mlinda Valley—as well as a taxi driver finds his way about in the main streets and byways of London. It is a period I remember vividly, not only because I was beginning to accomplish something at last, but also because of the delight I felt in being completely by myself. For those who love to be alone with nature I need add nothing further; for those who do not, no words of mine could ever convey, even in part, the almost mystical awareness of beauty and eternity that accompanies certain treasured moments. And, though the beauty was always there, those moments came upon me unaware: when I was watching the pale flush preceding dawn; or looking up through the rustling leaves of some giant forest tree into the greens and browns and black shadows that occasionally ensnared a bright fleck of the blue sky; or when I stood, as darkness fell, with one hand on the still-warm trunk of a tree and looked at the sparkling of an early moon on the never still, sighing water of the lake.

One day, when I was sitting by the trickle of water in Buffalo Wood, pausing for a moment in the coolness before returning from a scramble in Mlinda Valley, I saw a female bushbuck moving slowly along the nearly dry streambed. Occasionally she paused to pick off some plant and crunch it. I kept absolutely still, and she was not aware of my presence until she was little more than ten yards away. Suddenly she tensed and stood staring at me, one small forefoot raised. Because I did not move, she did not know what I was—only that my outline was somehow strange. I saw her velvet nostrils dilate as she sniffed the air, but

I was downwind and her nose gave her no answer. Slowly she came closer, and closer—one step at a time, her neck craned forward—always poised for instant flight. I can still scarcely believe that her nose actually touched my knee; yet if I close my eyes I can feel again, in imagination, the warmth of her breath and the silken impact of her skin. Unexpectedly I blinked and she was gone in a flash, bounding away with loud barks of alarm until the vegetation hid her completely from my view.

It was rather different when, as I was sitting on the Peak, I saw a leopard coming toward me, his tail held up straight. He was at a slightly lower level than I, and obviously had no idea I was there. Ever since arrival in Africa I had had an ingrained, illogical fear of leopards. Already, while working at the Gombe, I had several times nearly turned back when, crawling through some thick undergrowth, I had suddenly smelled the rank smell of cat. I had forced myself on, telling myself that my fear was foolish, that only wounded leopards charged humans with savage ferocity.

On this occasion, though, the leopard went out of sight as it started to climb up the hill—the hill on the peak of which I sat. I quickly hastened to climb a tree, but halfway there I realized that leopards can climb trees. So I uttered a sort of halfhearted squawk. The leopard, my logical mind told me, would be just as frightened of me if he knew I was there. Sure enough, there was a thudding of startled feet and then silence. I returned to the Peak, but the feeling of unseen eyes watching me was too much. I decided to watch for the chimps in Mlinda Valley. And, when I returned to the Peak several hours later, there, on the very rock which had been my seat, was a neat pile of leopard dung. He must have watched me go and then, very carefully, examined the place where such a frightening creature had been and tried to exterminate my alien scent with his own.

As the weeks went by the chimpanzees became less and less afraid. Quite often when I was on one of my food-collecting ex-

peditions I came across chimpanzees unexpectedly, and after a time I found that some of them would tolerate my presence provided they were in fairly thick forest and I sat still and did not try to move closer than sixty to eighty yards. And so, during my second month of watching from the Peak, when I saw a group settle down to feed I sometimes moved closer and was thus able to make more detailed observations.

It was at this time that I began to recognize a number of different individuals. As soon as I was sure of knowing a chimpanzee if I saw it again, I named it. Some scientists feel that animals should be labeled by numbers—that to name them is anthropomorphic—but I have always been interested in the *differences* between individuals, and a name is not only more individual than a number but also far easier to remember. Most names were simply those which, for some reason or other, seemed to suit the individuals to whom I attached them. A few chimps were named because some facial expression or mannerism reminded me of human acquaintances.

The easiest individual to recognize was old Mr. McGregor. The crown of his head, his neck, and his shoulders were almost entirely devoid of hair, but a slight frill remained around his head rather like a monk's tonsure. He was an old male—perhaps between thirty and forty years of age (chimpanzees in captivity can live more than fifty years). During the early months of my acquaintance with him, Mr. McGregor was somewhat belligerent. If I accidentally came across him at close quarters he would threaten me with an upward and backward jerk of his head and a shaking of branches before climbing down and vanishing from my sight. He reminded me, for some reason, of Beatrix Potter's old gardener in *The Tale of Peter Rabbit*.

Ancient Flo with her deformed, bulbous nose and ragged ears was equally easy to recognize. Her youngest offspring at that time were two-year-old Fifi, who still rode everywhere on her mother's back, and her juvenile son, Figan, who was always

to be seen wandering around with his mother and little sister. He was then about seven years old; it was approximately a year before he would attain puberty. Flo often traveled with another old mother, Olly. Olly's long face was also distinctive; the fluff of hair on the back of her head—though no other feature—reminded me of my aunt, Olwen. Olly, like Flo, was accompanied by two children, a daughter younger than Fifi, and an adolescent son about a year older than Figan.

Then there was William, who, I am certain, must have been Olly's blood brother. I never saw any special signs of friendship between them, but their faces were amazingly alike. They both had long upper lips that wobbled when they suddenly turned their heads. William had the added distinction of several thin, deeply etched scar marks running down his upper lip from his nose.

Two of the other chimpanzees I knew well by sight at that time were David Graybeard and Goliath. Like David and Goliath in the Bible, these two individuals were closely associated in my mind because they were very often together. Goliath, even in those days of his prime, was not a giant, but he had a splendid physique and the springy movements of an athlete. He probably weighed about one hundred pounds. David Graybeard was less afraid of me from the start than were any of the other chimps. I was always pleased when I picked out his handsome face and well-marked silvery beard in a chimpanzee group, for with David to calm the others, I had a better chance of approaching to observe them more closely.

Before the end of my trial period in the field I made two really exciting discoveries—discoveries that made the previous months of frustration well worthwhile. And for both of them I had David Graybeard to thank.

One day I arrived on the Peak and found a small group of chimps just below me in the upper branches of a thick tree. As I watched I saw that one of them was holding a pink-looking ob-

ject from which he was from time to time pulling pieces with his teeth. There was a female and a youngster and they were both reaching out toward the male, their hands actually touching his mouth. Presently the female picked up a piece of the pink thing and put it to her mouth: it was at this moment that I realized the chimps were eating meat.

After each bite of meat the male picked off some leaves with his lips and chewed them with the flesh. Often, when he had chewed for several minutes on this leafy wad, he spat out the remains into the waiting hands of the female. Suddenly he dropped a small piece of meat, and like a flash the youngster swung after it to the ground. Even as he reached to pick it up the undergrowth exploded and an adult bushpig charged toward him. Screaming, the juvenile leaped back into the tree. The pig remained in the open, snorting and moving backward and forward. Soon I made out the shapes of three small striped piglets. Obviously the chimps were eating a baby pig. The size was right and later, when I realized that the male was David Graybeard, I moved closer and saw that he was indeed eating piglet.

For three hours I watched the chimps feeding. David occasionally let the female bite pieces from the carcass and once he actually detached a small piece of flesh and placed it in her outstretched hand. When he finally climbed down there was still meat left on the carcass; he carried it away in one hand, followed by the others.

Of course I was not sure, then, that David Graybeard had caught the pig for himself, but even so, it was tremendously exciting to know that these chimpanzees actually ate meat. Previously scientists had believed that although these apes might occasionally supplement their diet with a few insects or small rodents and the like they were primarily vegetarians and fruit eaters. No one had suspected that they might hunt larger mammals.

It was within two weeks of this observation that I saw something that excited me even more. By then it was October and the

short rains had begun. The blackened slopes were softened by feathery new grass shoots and in some places the ground was carpeted by a variety of flowers. The Chimpanzees' Spring, I called it. I had had a frustrating morning, tramping up and down three valleys with never a sign or sound of a chimpanzee. Hauling myself up the steep slope of Mlinda Valley I headed for the Peak, not only weary but soaking wet from crawling through dense undergrowth. Suddenly I stopped, for I saw a slight movement in the long grass about sixty yards away. Quickly focusing my binoculars I saw that it was a single chimpanzee, and just then he turned in my direction. I recognized David Graybeard.

Cautiously I moved around so that I could see what he was doing. He was squatting beside the red earth mound of a termite nest, and as I watched I saw him carefully push a long grass stem down into a hole in the mound. After a moment he withdrew it and picked something from the end with his mouth. I was too far away to make out what he was eating, but it was obvious that he was actually using a grass stem as a tool.

I knew that on two occasions casual observers in West Africa had seen chimpanzees using objects as tools: one had broken open palm-nut kernels by using a rock as a hammer, and a group of chimps had been observed pushing sticks into an underground bees' nest and licking off the honey. Somehow I had never dreamed of seeing anything so exciting myself.

For an hour David feasted at the termite mound and then he wandered slowly away. When I was sure he had gone I went over to examine the mound. I found a few crushed insects strewn about, and a swarm of worker termites sealing the entrances of the nest passages into which David had obviously been poking his stems. I picked up one of his discarded tools and carefully pushed it into a hole myself. Immediately I felt the pull of several termites as they seized the grass, and when I pulled it out there were a number of worker termites and a few soldiers, with big red heads, clinging on with their mandibles. There they re-

mained, sticking out at right angles to the stem with their legs waving in the air.

Before I left I trampled down some of the tall dry grass and constructed a rough hide—just a few palm fronds leaned up against the low branch of a tree and tied together at the top. I planned to wait there the next day. But it was another week before I was able to watch a chimpanzee “fishing” for termites again. Twice chimps arrived, but each time they saw me and moved off immediately. Once a swarm of fertile winged termites—the princes and princesses, as they are called—flew off on their nuptial flight, their huge white wings fluttering frantically as they carried the insects higher and higher. Later I realized that it is at this time of year, during the short rains, when the worker termites extend the passages of the nest to the surface, preparing for these emigrations. Several such swarms emerge between October and January. It is principally during these months that the chimpanzees feed on termites.

On the eighth day of my watch David Graybeard arrived again, together with Goliath, and the pair worked there for two hours. I could see much better: I observed how they scratched open the sealed-over passage entrances with a thumb or forefinger. I watched how they bit the ends off their tools when they became bent, or used the other end, or discarded them in favor of new ones. Goliath once moved at least fifteen yards from the heap to select a firm-looking piece of vine, and both males often picked three or four stems while they were collecting tools, and put the spares beside them on the ground until they wanted them.

Most exciting of all, on several occasions they picked small leafy twigs and prepared them for use by stripping off the leaves. This was the first recorded example of a wild animal not merely *using* an object as a tool, but actually modifying an object and thus showing the crude beginnings of *toolmaking*.

Previously man had been regarded as the only tool-making

animal. Indeed, one of the clauses commonly accepted in the definition of man was that he was a creature who “made tools to a regular and set pattern.” The chimpanzees, obviously, had not made tools to any set pattern. Nevertheless, my early observations of their primitive toolmaking abilities convinced a number of scientists that it was necessary to redefine man in a more complex manner than before. Or else, as Louis Leakey put it, we should by definition have to accept the chimpanzee as Man.

I sent telegrams to Louis about both of my new observations—the meat-eating and the toolmaking—and he was of course wildly enthusiastic. In fact, I believe that the news was helpful to him in his efforts to find further financial support for my work. It was not long afterward when he wrote to tell me that the National Geographic Society in the United States had agreed to grant funds for another year’s research.