

Cover Story:

Jane Goodall: Living With Close Relatives

Sue E. Simon

Jane Goodall is an excellent example of what can be accomplished if a person wants to do something badly enough. Timothy Green (1970) states, in his book entitled *The Restless Spirit*: "Before she was thirty, after many months of patient observation of chimpanzees living in the wild in the Gombe Stream Reserve in Tanzania, this young English naturalist built up the best picture ever achieved of the ape that is closest to man. The life that she has led . . . shows that a young person with imagination and determination can still break free from the treadmill of the industrial society. The horizon for adventure may be shrinking, but those with determination can still set out for it." Jane Goodall obviously did.

Throughout her entire life she wanted to study animals in Africa. Even as a small child she kept journals on the animal behavior she observed and she saved her money to buy books on animals. However, when she left high school she qualified as a secretary and took a position as such. When a friend invited her to come to Africa and visit, she seized the opportunity and immediately set about preparing for the trip. Shortly after her arrival she contacted Dr. Louis B. Leaky. It was while working as Dr. Leaky's secretary that she was to come across an opportunity that was to change not only her life, but the entire way in which the scientific community thought of chimpanzees and humans. Since others had tried to study chimpanzees (*Pan troglodytes schweinfurthii*) in their natural habitat, but had given up after a few short months, Dr. Leaky felt that such a study required someone who was dedicated and patient. He thought that Jane Goodall was that someone and asked her if she was interested in studying chimpanzees. Dr. Leaky was absolutely correct. David Hamburg, who wrote the forward to *In The Shadow Of Man* (Goodall 1971), had this to say of her work: "Once in a generation, there occurs a piece of research that changes man's view of him-

self. The reader of this book has the privilege of sharing such an experience."

During the three years it took to prepare for her research she studied primate zoology at the Royal Free Hospital and at the London Zoo. Meanwhile Dr. Leaky arranged for funding through the Wilkie Foundation in Illinois. Arrangements had to be made for someone to accompany her since there was civil unrest near the Gombe Stream Reserve where she was to conduct her study. When a companion could not be found, her mother, Vanne Goodall, volunteered and, surprisingly enough, authorities agreed. Ms. Goodall first set foot on the reserve in July of 1960, accompanied only by her mother and the camp cook, Dominick. She considered it to be the happiest day of her life. To venture so far, so alone, and so isolated must have taken a great deal of courage. To make it one's home is an astounding feat. That she intended to study wild animals whose average height is 5 feet, whose weight is 125 to 175 pounds, and who could easily crush a human being, without any intent of harm, makes it all the more incredible. Although Dr. Leaky had felt it would take a special person to complete the study, neither he nor Ms. Goodall could have foreseen the fortitude that was required. She lived through malaria (when told there was no malaria in the area), attacks by chimpanzees, walking into buffalo and leopards (literally), having lions and a rhinoceros walk into camp, and the rainy season. Once she was called upon by natives to help deliver a baby; it was the first time she was to witness a birth.

She even raised her own son, nicknamed "Grub," in the bush (modeling a few mothering techniques after chimpanzee mothers). She felt that chimpanzee mothers often showed amazing abilities and tried to use some of the more positive aspects of childrearing that they used, such as distracting an infant who is being bothersome or getting into trouble. She once stated: "Today the opportunities just to go out and study animals are few and far between. I was just in time. I often feel so sorry for Grub—my little boy—that I am bringing him up in a way of life that he'll never be able to have when he is grown up." Even though her son spent much of his school years in England, he spent time each year with his mother on the reserve, learning what it is like to be truly involved with nature.

Before Jane Goodall studied the chimpanzees on the Gombe Stream Reserve, little was known about

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their natural behavior. It was thought that they spent most of their travel time brachiating (swinging arm over arm) through the trees, that they seldom built nests, and that they were strict herbivores. Her findings were to dispel these misconceptions and she was to shake the scientific community to the extent that the definition of "man" had to be re-evaluated. "Man" could no longer be defined as the only tool maker. The shock waves were felt for quite some time.

Tool Making

After many months of patient watching, she was rewarded by observing a chimpanzee actually constructing a tool. Tool construction was something that only humans, by definition, were capable of doing. One of the chimpanzees, David Graybeard, was observed selecting grasses or vines, stripping them of leaves, carrying them to termite mounds, and "fishing" for termites. In order to be assured of her findings, she carefully observed other chimpanzees for a great length of time to ensure that this was not an isolated case. When she was positive, she cabled Dr. Leaky who cabled back that the definition of "man" must be changed or else chimpanzees needed to be reclassified as human. Another tool making action that she was the first to report was when she observed chimpanzees making leaf "sponges" by chewing the leaves and then using them to sop up water that they could not reach with their mouths.

Hunting and Meat Eating

She was also able to observe chimpanzees eating meat. She found that chimpanzees would also actively hunt bush pig, baboons, etc. in groups, obviously cooperating. She was astounded to find that they not only ate meat, but they seem to consider it a delicacy. She had not expected to observe cannibalism, but Goodall reported that a mother and her daughter had seized the infant of another chimpanzee and had devoured it. She suspected that it was not the first time that it had happened, although other chimpanzees have not been observed doing the same. Something which intrigues many behaviorists is the observation that the mother and daughter had not been well adjusted prior to the attack. The mother had never provided normal mothering and the daughter also had seemingly grown up to be maladjusted.

Nesting and Dancing

She showed that not only do chimpanzees build nests frequently, but they do so nightly. It is an art

the young learn through observing others. She reported that the nests actually were quite comfortable and clean. Each chimpanzee made its own nest each evening at dusk, except for mothers, who regularly shared their nests with their young offspring. She was also to observe the "carnival" or "rain dance" that Richard Garner had noted years earlier.

It was after these findings were publicized that the National Geographic Society agreed to fund her research in exchange for the rights to follow up on her work. She met her first husband, Baron Hugo Van Lawick, when he was assigned by the National Geographic Foundation to photograph the chimpanzees on the reserve. By mid-1970, the Gombe Stream Reserve was busy with graduate students, undergraduate students, assistants, and staff. The isolated tent she had lived in for so long was replaced by aluminum huts that the chimpanzees could not raid or chew on. Cement bunkers were set up to control the dispensing of bananas, which were used to entice chimpanzees into an observable area, but which also prevented chimps from overcrowding the area and forming unnaturally large groups.

Ms. Goodall is now Dr. Goodall. Each year she had spent a semester at Cambridge University, where they had waived their undergraduate requirements for her. Her doctoral thesis was on her study of chimpanzees at the reserve. Things have changed a lot since she spent 12 hours a day in the forest and what seemed to be another 12 hours each night transcribing notes by lantern light. After a divorce, she married Derek Bryceson, a Tanzanian National Parks administrator. He later died of cancer. In 1975 her study and those involved at the Gombe Stream Reserve were to receive a devastating blow. Guerrillas entered the camp, seized students and a foreign national, and held them for ransom. The reserve was then closed to students; the isolation which provided the means for studying chimpanzees was considered too much of a threat.

Nicholas E. and Elise C. Collias (1976) state that "Jane Van Lawick-Goodall has made some outstanding contributions to our knowledge . . . in her own classic studies of the chimpanzee. . . ." I couldn't agree more whole-heartedly. However I think it is important to realize that she has done much more. She and her first husband authored *Innocent Killers* (1971), on their study of hyenas, wild dogs, and jackals. She has published several books herself including *My Friends The Wild Chimpanzees* (1967) and *In The Shadow Of Man* (1971). Not only has she written numerous articles for scientific journals on her study of the chimpanzees, but she has also authored articles and done studies on vultures and baboons. She has had many books and articles written about her, and most people have, at some time, seen the

television specials done by the National Geographic Society about her work.

Her work is valuable in many ways. Her studies provide a baseline for behavioral analysis of captive chimpanzees in laboratories all over the world. They also provide these same laboratories and zoos with valuable information about the necessary care of chimpanzees. Incidents that she has observed in the wild dealing with mother-child relationships, the effects of death on family, and others have provided insights into the workings of the human mind for psychologists. The tool making that she reported has provided information that could be useful in determining how our own tool making came about. Did we construct our first tools as helpful utensils or as weapons? Some believe that utilitarian use of modified grasses, sticks, etc. in everyday life came about before the construction of weapons. Studies of chimpanzee tool making could provide illumination in this area.

Much of the research done on chimpanzees can be relevant to humans. As David A. Hamburg states in the forward of Goodall's book *In The Shadow Of Man*: "Whether one examines the nature of immune responses, the structure of blood proteins, or even the structure of the hereditary material itself (DNA), the chimp is closer to man than is any other species." Jane Goodall has done more than any other single individual to promote our understanding not only of chimpanzees, but to make us see that we cannot truly understand any animal until we have studied it

in its natural habitat. She has demonstrated a way of treating our laboratory animals with more care and respect. In doing so, she has not only benefitted chimpanzees (or any other species she has studied), we ourselves are benefitting from more accurate and relevant descriptions upon which to base further research. Goodall states in *In The Shadow of Man*:

"... the chimpanzee is extremely close to man. . . . Because of this, he is probably the only really effective substitute when for ethical reasons research cannot be carried out on humans. . . . Also, because of the similarity of the chimpanzee brain to the human brain, experiments carried out with chimpanzees will undoubtedly be of great value to those scientists who are grappling with the problems of human mental illness. Some people may not be aware of either the prevalence or the tragedy involved in disorders of the brain such as, for example, schizophrenia or severe depression. It is not only the victims themselves who are affected but also their families and friends. Chimpanzees may serve as experimental models for some of these disorders and thus assist science in its fight to alleviate human suffering."

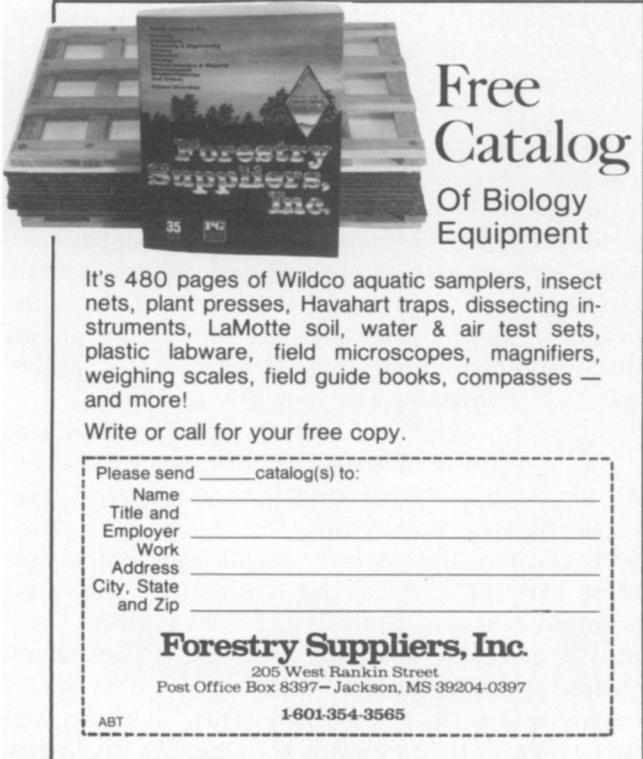
As to whether or not chimpanzees should be experimental subjects she also says:

"... while I agree that the chimpanzee should take part, if absolutely necessary, in some . . . experiments, I also feel strongly that laboratory chimpanzees, in nearly all cases, should be given much-improved living conditions. Surely if we want to use this ape as a guinea pig in medical research, whether it be in connection with kidney transplants, drug addiction, or long term effects of the Pill, if we desire him to help man in his conquest of space—then we should make every effort to see that he is a well-treated and honored guest in our laboratories."

Jane Goodall has made this much more possible than ever before.

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