THINKING
New Perspectives on Anthropomorphism
WITH ANIMALS

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CHAPTER 8

Pachyderm Personalities

The Media of Science, Politics, and Conservation

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> *"I defy any one to look upon elephants without a sense of wonder. Their very enormity, their clumsiness, their giant stature, represent a mass of liberty that sets you dreaming. They're . . . yes, they're the last individuals.*
>
> *"No, mademoiselle, I don't capture elephants. I content myself with living among them. I like them. I like looking at them, listening to them, watching them on the horizon. To tell you the truth, I'd give anything to become an elephant myself."*
>
> —Romain Gary, *The Roots of Heaven*

To become an elephant: a fictional idea when Romain Gary published his internationally best-selling novel in 1958, this became an important scientific question a decade later among a generation of elephant researchers inspired by Gary's novel to pursue their own single-minded cause to save the African elephant. The Los Angeles premiere of the Discovery Channel's forty-minute large-format film, *Africa's Elephant Kingdom*, in May 1998, drew upon thirty years of ethological research to bring viewers an intimate portrait of elephant family life and social relations told through the eyes of Old Bull, a sixty-year-old male elephant in Amboseli National Park who "lived through World War II, the Mau-Mau rebellion and the independence movement in Kenya."[1] Filmmaker Tim Cowling spoke of the challenges of being like a "wide-angle eye inside an elephant."[2] To aid him in thinking, seeing, feeling like an elephant, Cowling had at his disposal the

film's scientific consultant, Iain Douglas-Hamilton, who had spent his entire adult life living among the elephants, waging guerilla warfare in their defense, and helping orchestrate a worldwide ban on the elephant-ivory trade. In describing a scene from *Africa's Elephant Kingdom* when a mother makes a futile attempt to lift her dying infant off the ground and is, in an alleged gesture of compassion, touched by an elephant from another family, Douglas-Hamilton remarks: "They can't tell us what was going on in their heads, but to me it looked as if they understood very well what she was feeling. And animals that can do that are really very high on the order of consciousness, animals that have the mind and tools to be able to reconstruct what is going on in the mind of another animal's head."[3]

Douglas-Hamilton was speaking not just of the elephant's abilities to transcend individual experience but of his abilities and those of a handful of researchers—Cynthia Moss, Joyce Poole, Katy Payne—to cross the species divide. In the thirty years since Douglas-Hamilton first began his pioneering study of the Lake Manyara elephants, a detailed, intimate understanding of elephants as individuals has emerged. The introduction of a number of innovative methodological field techniques related to communications technology drew researchers not only into the world of animal communication but into the mass-communications industry. This alliance has forged new networks in the practice and promotion of conservation biology where personalities and emotions, prominent features in the "highly personalized topography" of media culture, have also become distinguishing landmarks in elephant research and conservation.[4]

Unlike other areas of science and public policy, the authority and expertise of scientist-activists like Iain Douglas-Hamilton and Cynthia Moss among politicians and the general public derives not from their detachment but from their long years of intimate associations with elephants in the wild. Just as Hollywood stars encourage a sense of intimacy with their audience, so too do these biologists achieve fame through their ability to bring humans into intimate contact with elephants.[5] It is the very interplay between elephant and human, as biologists take on characteristics of elephants and vice versa, that has been of critical importance in the rise to stardom of both researchers and their extended elephant families. While an appeal to numbers has often shored up the authority and expertise of scientists in the political realm, in the case of elephant conservation, anthropomorphism and emotion, more than numbers, have lent greater credence to science in the public sphere.[6] It is the morphic aspects of anthropomorphism that interest me in this essay, along with the transformative aspects of photography and film in altering the topographic spaces where biological knowledge gets produced and consumed. In their deployment

of film and photography as instruments of research and weapons of activism, ethologists and the media networks that sustain their work and image have fashioned themselves and their subjects into popular celebrities, creating new systems of patronage and research that do not fit readily into the standard funding patterns or research practices of twentieth-century life science.

THE FAMILY THAT LIVES WITH ELEPHANTS

DAUGHTER: What does "objective" mean?

FATHER: Well. It means that you look very hard at those things which you choose to look at.

DAUGHTER: That sounds right. But how do the objective people choose which things they will be objective about?

FATHER: Well. They choose those things about which it is easy to be objective.

DAUGHTER: You mean easy for them?

FATHER: Yes.

DAUGHTER: But how do you KNOW that those are the easy things?

FATHER: I suppose they try different things and find out by experience.

DAUGHTER: So, it's a subjective choice?

FATHER: Oh, yes. All experience is subjective.

DAUGHTER: But it's HUMAN and subjective. They decide which bits of animal behavior to be objective about by consulting human subjective experience. Didn't you say that anthropomorphism is a bad thing?

FATHER: Yes—but they do try to be not human.[7]

The above—an excerpt from Gregory Bateson's metalogue to a 1965 international conference on "Approaches to Animal Communication" sponsored by the Wenner-Gren Foundation for Anthropological Research—appeared at a time when the mechanomorphism of classical ethology had begun to show signs of strain. In regarding animals as "limited to existing and reacting" rather than viewing them as "thinking and feeling," ethologists like Konrad Lorenz and Niko Tinbergen had developed an approach to the study of animal behavior that yielded impressive results in understanding the role of communication in the animal world.[8] But, as the Bateson metalogue implies, it did so at a cost, excluding any reference to the

individual subjective experience of either the animal or human. Bateson's metalogue calls into question criticisms of anthropomorphism by suggesting that excluding various behaviors from study, what Frans de Waal has labeled anthropodenial, is as much a subjective act as is anthropomorphism. In the daughter-father conversations that followed, the problem of subjectivity—not of the observer but of the individual animal, inaccessible to human experience—became a topic of discussion. It is this focus on individuality in ethological research, which lends itself so readily to "the individualizing production aesthetic of television culture," that is of central importance to the production of celebrity scientists and elephants.[9]

Historians have yet to explore when and why questions of subjective emotional and mental states became once again legitimate, albeit controversial lines of inquiry within ethology and comparative psychology, but one important factor is surely the long-term behavioral field studies that began in the 1960s and relied upon the identification, recognition, and naming of individual animals, most notably the primate studies of Jane Goodall and George Schaller. While Tinbergen followed individuals to understand signals of communication among herring gulls, his interest in the individual was only as a marker of species-specific behavior. In the act of naming, however, Goodall, Schaller, and others offered the possibility of understanding individuals not as simply placeholders of animal behavior but as subjective beings. Schaller himself remarked that only by looking at gorillas as "living, feeling beings" was he "able to enter into the life of the group with comprehension, instead of remaining an ignorant spectator," although he reserved such reflections for his popular 1964 book *The Year of the Gorilla* and not his scientific monograph.[10] When Iain Douglas-Hamilton set out in 1965 to pursue his doctoral research on the behavioral ecology of elephants in Lake Manyara National Park, he was among the first of a generation of ethologists and behavioral ecologists to focus on individual life histories in understanding complex social relationships.

Douglas-Hamilton's initial interest was not individual elephants. Rather, his dissertation research was undertaken on behalf of John Owen, director of Tanzania National Parks, to advise on whether the elephant population in Lake Manyara needed to be culled based upon "knowledge of rates of habitat change and elephant population dynamics."[11] A quick, two-day aerial census of large mammals in Lake Manyara conducted by Murray Watson of the Serengeti Research Project and Myles Turner of Tanzania National Parks in April 1965 had produced estimates of twelve elephants per square mile, the largest density to be found in all of East Africa. Unless the herds of elephant and buffalo were reduced, Watson and Turner believed that the plains game populations of wildebeest and zebra faced imminent extinction.[12]

The recommendations of Watson and Turner for Lake Manyara appeared at a time when a heated controversy over management of elephant populations in East Africa was stirring, which culminated in a bitter public dispute. Tsavo National Park, located 150 kilometers to the northeast of Lake Manyara in Kenya, was the largest national park in East Africa. Established in 1948, Tsavo became a favored spot for elephant poaching, with an estimated 3,000 elephants killed between 1954 and 1957. In 1956, special antipoaching teams organized by David Sheldrick, a former British military office, professional hunter, and warden of the eastern district of Tsavo National Park, significantly curtailed the poaching activities of local Waliangulu and Wakamba tribes. By the early 1960s, an estimated 10,000 elephants inhabited Tsavo as their movements became more restricted by poaching activities and habitat loss outside the park's boundaries and as wells drilled inside the park became attractive watering holes. In 1948, when the park was established, the vegetation of Tsavo was largely woodland, consisting of thick commiphora and acacia trees that made wildlife viewing difficult for tourists. By the early 1960s, however, as a result of a drought and an increasing elephant population, eastern sections of the park looked like a "lunar landscape," as elephants destroyed large numbers of baobab, commiphora, and acacia trees, converting what was once bush country into grassland.[13]

In the early 1960s, the trustees of Kenya National Parks believed the deteriorating landscape in Tsavo East warranted the killing of 2,000 elephants to bring the population in line with the area's carrying capacity. Originally supportive of culling, Sheldrick began to have doubts as the rains returned and the country became a lush, open grassland, attractive to both grazing wildlife populations and tourists. Sheldrick wondered whether woodland represented the natural climax community or whether the region was marked by a repeating vegetation cycle from woodland to open savanna, aided by elephants. If the latter, then a reduction in the elephant population instituted a management scheme that hindered rather than abetted "natural" ecological processes and cycles. His reluctance to support the wholesale slaughter of elephants in Tsavo, known as "cropping" in wildlife-management circles, which he believed would undermine the park's successful antipoaching efforts, prompted the Kenya national government, with the assistance of the Ford Foundation, to fund a research study to investigate the problem.

Richard M. Laws, a Cambridge biologist with an expertise in marine mammal populations in the Antarctic, was selected as director of the Tsavo Research Project in 1966. In 1961, Laws had abandoned the icy waters of the Antarctic for the tropics when he accepted the directorship of Cambridge

University's Nuffield Unit of Tropical Animal Ecology in Uganda. It was in Murchison Falls National Park in Uganda that Laws first perfected his techniques for studying the population ecology, conservation, and management of elephants, methods he transferred to the study of the elephant problem in Tsavo. To arrive at a detailed understanding of elephant population dynamics, including social structure, age structure, growth, population size, and mortality and reproductive rates, Laws conducted aerial census surveys and large-scale sampling that involved killing hundreds of elephants. Laws contracted Ian Parker's firm, Wildlife Services Limited, to crop elephants and assist in performing speedy postmortems. Using semiautomatic rifles, Parker and his team could kill a family of ten or more elephants within thirty seconds. Scientific sampling techniques that gathered data on age, sex, and body size of elephants proved a lucrative business, since Parker's company harvested the ivory, meat, and hides for sale (figure 8.1). In a three-month period in 1965, Parker and Laws fine-tuned their sampling techniques, killing 563 elephants in Murchison Falls National Park. Convinced that the methods Laws and Parker had refined were sufficiently efficient and humane, the National Park trustees granted the Nuffield Unit of Tropical Animal Ecology and Wildlife Services Limited a contract to kill a total of 2,000 elephants over the course of the next two years for cropping purposes and scientific investigation.[14] When Laws took up his new post at Tsavo in 1966, he requested and was granted a permit to kill 300 elephants for experimental, scientific purposes. In July of 1967, when he asked to extend that number to 1,800 elephants for simultaneous cropping and scientific research, Sheldrick and the National Park trustees objected. Laws resigned his position, accusing Sheldrick and others of adopting an attitude that was "irrational and entirely based on emotion." "It is sad to consider that the fate of these impressive populations of elephants and other species depends on emotion and politics," he continued, "rather than study, rationale debate, decision, and action."[15]

In the quantitative methods Laws utilized for obtaining knowledge about elephant population dynamics, individuals did not count. This was, in fact, why Laws could move so easily between marine mammals and elephants; his approach was derived foremost from statistical methods in population ecology, where patterns of numbers, rather than a detailed understanding of individual organisms and their behaviors, mattered most. Laws strongly believed numbers offered an "objective scientific approach" to the problem of elephant management, in contrast to the "wooly thinking" of preservationists like Sheldrick. And although Laws's appeal to politicians and the public was far removed from the intimate knowledge of pachyderm personalities for which ethologists like Iain Douglas-Hamilton

8.1 Elephant culls offered a methodological tool for collecting statistical information on the animals' sex, age, and body size. Courtesy of Iain Douglas-Hamilton, Oria Douglas-Hamilton, and their charitable organization, Save the Elephants.

would become so well known, his approach, grounded in population statistics, nevertheless relied upon an emotional response in winning support for his views.[16]

The "calculated aesthetic distance" so central to Laws's scientific study and management of East African elephants found its artistic expression in the work of Peter Beard.[17] A Yale graduate, Beard followed in the path of a previous generation of wealthy sportsmen and went to Africa on safari in search of manhood. He settled in Kenya in the 1960s next to Karen Blixen's farm, enchanted by the vanishing life in Blixen's *Out of Africa*. In 1966, his talents as a big-game hunter earned him a place among the staff of Wildlife Services Limited to assist in the scientific cropping of elephants in Murchison Falls National Park. In his 1977 edition of *The End of the Game*, a historical, photographic record of Africa's vanishing wildlife and people first published in 1963, Beard added a haunting series of photographs and an epilogue by Richard Laws that seemed to confirm Laws's conviction that the greatest threat to Africa's elephant populations was not poaching but the increasing population-growth rates of elephants coupled with habitat destruction. The drought years of 1969 and 1970 in Tsavo resulted in an estimated 6,000 elephants' dying

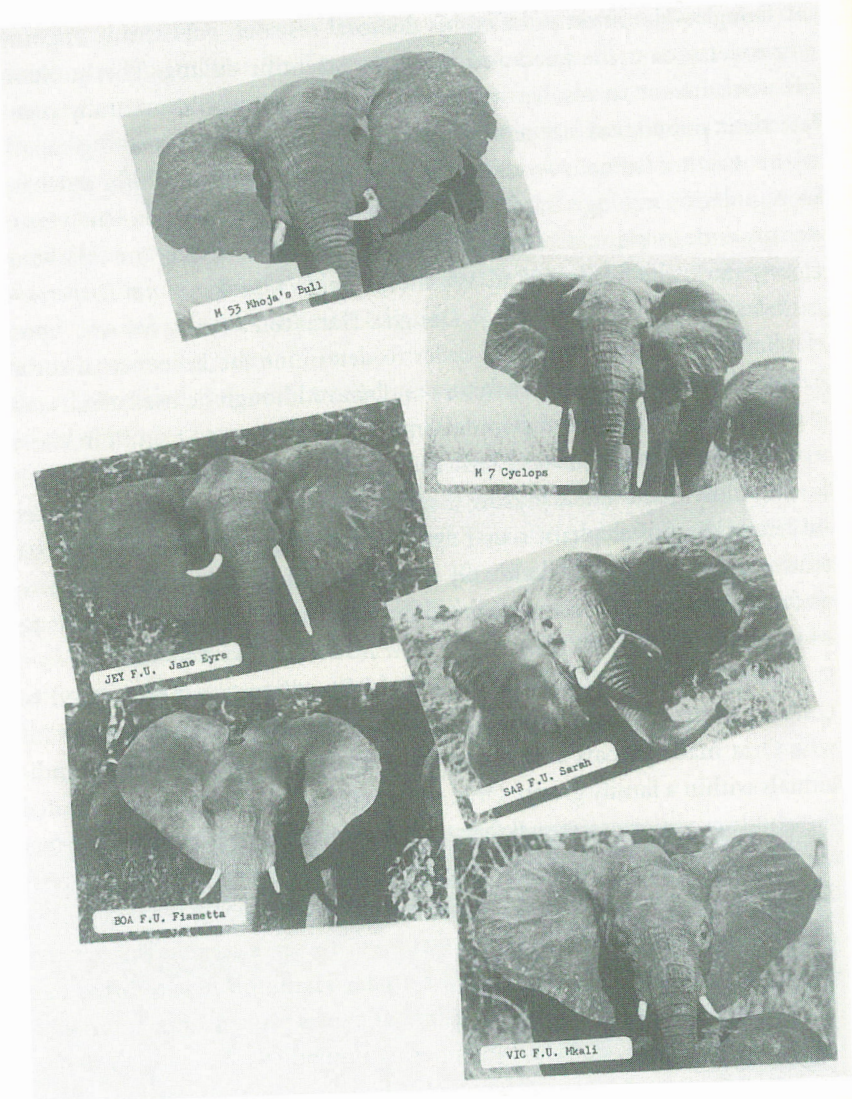
of starvation and a desert wasteland. Beard's aerial photographs of this death and destruction in Tsavo, on exhibit at the Manhattan International Center for Photography in 1978, haunted viewers not because of their intimacy but because of their detachment. The sheer number of photographs captured a stark, impersonal side to a disaster that was at once natural and manmade, which Beard and Laws hoped would call politicians and the public to action. Like Laws's population statistics, Beard's photographs played upon an aesthetics of detached objectivity meant to enlist public support (figure 8.2). Only culling, Laws believed, could save the elephants.[18] In 1996, in an exhibition of his work in Paris, Beard extended that recommendation to the human race as well. Asked about Africa's current ecological problems, Beard remarked: "Agents of mortality is what we need now. We should be campaigning for smallpox and cancer."[19] In advancing their cause, neither Laws nor Beard adopted ecological or photographic techniques that focused upon intimate, individual portraits. Beard, a regular in New York City's legendary Studio 54 and friend of celebrities such as Mick Jagger and Jackie Onassis, knew well that the camera's intimacy, which he readily put to work as a famed international fashion photographer, would only hinder public support of the elephant-culling operations he and Laws endorsed.

8.2 The calculated aesthetic distance of population ecology, aided by the airplane, found its artistic expression in the work of Peter Beard. Courtesy of Peter Beard/Art and Commerce Anthology.

Douglas-Hamilton pursued his doctoral research amidst this ongoing controversy over the need and merits of scientific culling. The question his work meant to resolve was whether elephants would naturally regulate their population size as they reached the ecosystem's carrying capacity or whether humans would need to intercede. Framed within a debate in population ecology over the significance of density-dependent versus density-independent factors regulating population numbers, and following closely upon the heels of V. C. Wynne-Edwards's book *Animal Dispersion in Relation to Social Behavior*,[20] Douglas-Hamilton's study focused upon elephant social organization in order to determine the influence of social behavior upon population structure and size. Although he used aerial census techniques to arrive at population estimates, Douglas-Hamilton chose as his primary unit of analysis individuals within a population. Only by following individuals and analyzing their behaviors could he arrive at a better understanding of elephant social dynamics. By the time he completed his study in 1972, he could individually recognize and identify 300 elephants in 25 family groups out of an estimated population of 420 elephants in Lake Manyara National Park.

The "calculated aesthetic distance" of Beard's photographs stood in contrast to the intimate elephant portraits Iain Douglas-Hamilton and his wife Oria made as part of a recognition system devised to identify individuals within a family group. Oria, whose cousin Jean de Brunhoff created the children's stories about Babar the elephant, found her skills as a former fashion photographer well-suited to the demands of Iain's field study. Close-up photographs of elephants revealed characteristic features of the ears and tusks that were distinctive enough to serve as reliable markers of individuals (figure 8.3). Although Douglas-Hamilton first resorted to a numbering system, he found that assigning names proved a much more effective mnemonic device for remembering individuals. To my knowledge, his dissertation is the first to be written and published under his adviser Niko Tinbergen that actually referenced animals by personal names instead of numbers.

In naming female elephants—like Boadicea, the queen of the elephant matriarchs in Lake Manyara, named after the fierce ancient British queen who led the Iceni Celts against the conquering Romans in A.D. 61—and in his use of close-up photographs shot with the eye of a former fashion photographer, Douglas-Hamilton foregrounded personality and emotion in his analysis of elephant social life (figure 8.4). Earlier in his life, Niko Tinbergen, Douglas-Hamilton's mentor, had worked arduously to develop an "objectivist study of innate behavior among animals." By the early 1970s, however, Tinbergen suggested that without the "emotional, personal

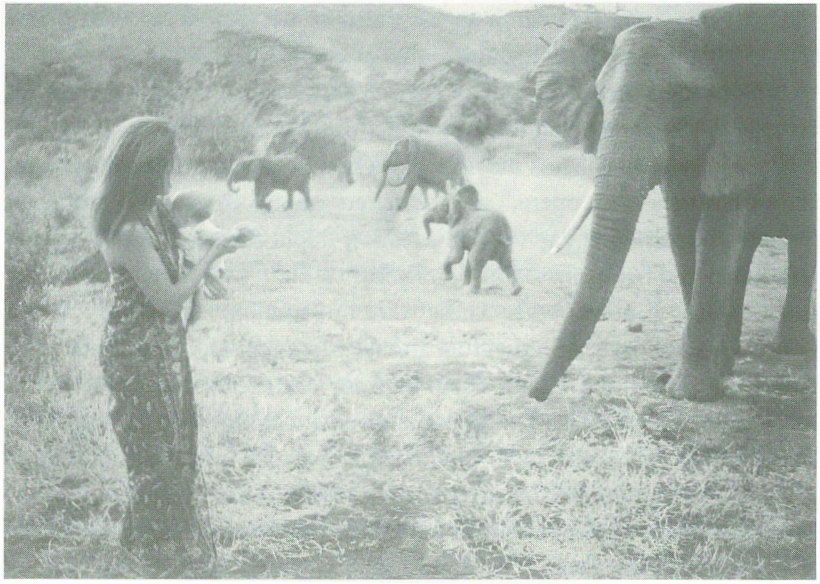


8.3 Close-up photographs of elephants taken by Iain and Oria Douglas-Hamilton served as an important recognition system for both identifying individual elephants and capturing their individualities. Courtesy of Iain Douglas-Hamilton, Oria Douglas-Hamilton, and their charitable organization, Save the Elephants.

involvement" of Douglas-Hamilton, "no man could have had the perseverence [*sic*] to carry out this type of study." Douglas-Hamilton similarly remarked that despite his strict scientific training at Oxford "not to give human interpretations to animal behaviour, it was impossible not to anthropmorphize." As Tinbergen came to recognize, Douglas-Hamilton's emotional attachment to individual animals was precisely what led him to a detailed understanding of elephant behavior and social life far beyond what any biologist had previously described.[21] His intimate portrait of individual elephants through both the camera and the pen also made his work appeal more to film and television crews than the work of biologists like Laws, whose quantitative approach to elephant research and conservation did not fit easily into the narrative and visual conventions of the commercial media industry.

In his intimate associations with elephants for a period of four and a half years, Douglas-Hamilton found elephant social life to be organized around tightly knit matriarchal family units that had distinct but widely overlapping home ranges and would associate in larger kinship groups without any territorial aggression. Note that unlike Richard Laws, the sum total of individuals in Douglas-Hamilton's study resulted in an elephant society, not a population. The prolonged years of dependence, Douglas-Hamilton observed, of calves upon mothers and older siblings led him to believe that elephants displayed a high order of intelligence acquired through learned experience. With one particular female, Virgo, Douglas-Hamilton felt he was on "the brink of an understanding" as she came to greet him with her trunk and a warm gush of air.[22] But crossing the species divide always proved an elusive goal, even as his family lived among the elephants and adopted certain aspects of their way of life. In *The Family that Lives with Elephants*, a half-hour episode of *Suvival* that aired on British television in 1975, for example, Oria Douglas-Hamilton speaks of how "as a mother observing elephants," she became "much more aware of the importance of tactile care, because baby elephants . . . always had a young female who would touch them, put their trunks around them. . . . It was this special tactile care," she observed, "that I was trying to relate to the way I brought up my children because this I thought was important. Just as important as it is for elephants to live close to each other, it was important for us to live close to each other"[23] (see figure 8.5). It is curious, yet perhaps not unsurprising, that an article published in *Psychology Today* in the early 1970s referred to Iain Douglas-Hamilton as an anthropologist. But had elephants become human or had he become elephant? This was always the danger of going native.[24]

8.4 Boadicea, the queen of the elephant matriarchs in Lake Manyara. Courtesy of Iain Douglas-Hamilton, Oria Douglas-Hamilton, and their charitable organization, Save the Elephants.



8.5 Crossing the species divide. Courtesy of Iain Douglas-Hamilton, Oria Douglas-Hamilton, and their charitable organization, Save the Elephants.

BATTLE FOR THE ELEPHANTS

> *"It seems to me that what you and your husband are doing, counting elephants, is not going to solve the problem. You need proper people and proper guns."*
>
> —J. A. Mull, 1981, in Iain and Oria Douglas-Hamilton, *Battle for the Elephants*

During the 1970s, a second generation of ethologists and behavioral ecologists, who became equally important celebrities in the fight to save the elephant, furthered the work Iain Douglas-Hamilton had begun. Cynthia Moss, the guardian of elephant herds in Amboseli National Park, was first introduced to the study of elephant behavior during eight months spent with Iain Douglas-Hamilton in the field in 1968. A former theater reporter for *Newsweek*, she gathered around her a handful of other researchers, including Joyce Poole and Katy Payne, devoted to the study of elephant social behavior and communication. Through these studies, which have lent support to the view that elephants are "extremely social, long-lived beings whose intelligence is formed by deep memories

and passions," these researchers have also come to actively defend and promote the moral standing and rights of elephants.[25]

The lives of these researchers have in fact become so enmeshed with those of the elephants that it is sometimes difficult to discern the boundaries between the two. Moss has remarked how "studying elephants is a bit like watching a soap opera," as researchers engage in gossip about their favorite animals. One day the conversation might turn to Lolita's coming into estrus and being chased by "dinky little bulls"; the next day, to Jezebel and who she was seen with. These were not random names but chosen to convey something of individual animal personalities. As for anthropomorphism, Moss and others argue that any such fears are unwarranted. Moss, who adopted Iain Douglas-Hamilton's technique of naming individual female elephants, had little concerns that such names would impose a "person's characteristic on the animal." Instead, Moss remarked that she had the opposite problem. "When I am introduced to a person named Amy or Amelia or Alison, across my mind's eye flashes the head and ears of that elephant." These elephantic associations extended to researchers themselves. M13, a large male bull in Amboseli, for example, became affectionally known as Iain among this tight-knit group of female researchers. Alphanumeric codes, rather than human names, were more commonly used to refer to male elephants, indicating how tangential researchers considered them to be in this matrilineal society.[26]

During the late 1970s and 1980s, Douglas-Hamilton's life did indeed begin to resemble that of the "rogue elephant" Morel, the protagonist in Romain Gary's novel who would do "anything to become an elephant" and launches a crusade in their defense.[27] On the basis of his dissertation research, Douglas-Hamilton concluded that there was no evidence to suggest that elephants would naturally regulate their population size through behavioral mechanisms such as territoriality or aggression as they approached the upper limit of available food supply. The high densities of elephants in Lake Manyara National Park were having a destructive impact on the *Acacia tortilis* woodland, but Douglas-Hamilton strongly opposed the culling measures advocated by Laws because of their impact on the elephants' complex social organization. Instead, he urged the Tanzania National Parks to extend the park's range to the southwest by buying back eighty square kilometers of farmland and establishing access routes to the Marang Forest. When a drought, similar to that which ravaged Tsavo in the early 1970s hit Manyara in 1976, escalating woodland destruction, Douglas-Hamilton reluctantly advised Derek Bryceson, director of Tanzania National Parks, to institute a culling program. He insisted, however, that his study groups in the central and northern regions of the park be left intact. Only elephants in the southern portions of the park,

which were recent refugees and thus unknown to Douglas-Hamilton, were to be shot. Although the rains returned the following spring, briefly sparing the Manyara elephants, soaring ivory prices were taking an increased toll on elephant populations across the African continent. Abandoning the cause of the Lake Manyara elephants, Douglas-Hamilton launched a concerted effort on behalf of the entire species.[28]

In moving from the individual to the species, Douglas-Hamilton "regrettably" abandoned his "intimate study of known elephants" and took to the air, compiling the first continental census of African elephants, organized through the International Union for the Conservation of Nature with funds from the New York Zoological Society and the World Wildlife Fund.[29] The distance from his beloved elephants was both literal and figurative. Between 1976 and 1979, using a combination of standardized aerial census techniques and a network of scientific informants, he gathered numbers to arrive at an estimate of 1.3 million elephants remaining in Africa. If the numbers seemed high, Douglas-Hamilton was convinced that they showed an alarming declining trend, precipitated first and foremost in his opinion by poaching and an expanding ivory trade.

His pan-African survey nearly complete, Douglas-Hamilton flew to Washington, D.C., in December 1977 to testify before a congressional committee to debate whether the African elephant should be listed as a threatened or endangered species under the Endangered Species Act, effectively banning U.S. imports of ivory and other elephant products. The committee also faced the question of whether the United States should petition member countries of the Convention on International Trade in Endangered Species of Wild Flora and Fauna to raise the status of the African elephant from appendix II to appendix I, which would severely restrict the worldwide ivory trade. Two years later, he returned, this time to testify on behalf of a bill introduced to Congress to provide for the control of the import and export of elephants and elephant products into and out of the United States.

Minnesota Representative James Oberstar succinctly captured the protocol of science in the legislative arena when he remarked to Douglas-Hamilton: "It must be quite a contrast to sit here in the rather arid committee hearing room discussing the fate of the elephants, among whom you have lived for such a time, and with whom you had such a close relationship being able virtually to talk to them. I cite the contrast between the enormous study you have done and the relationship you had in the world of animals with the way we are trying to protect them in this legislation."[30] Oberstar was referring to the reams of reports grounded in statistics of elephant population sizes, densities, and ivory sales and trade that formed the basis of hearing testimonies, including those of Douglas-Hamilton. But

it was not numbers but a concern for individual elephants that motivated the public, who sent 4,000 letters to the committee chairman in support of House Bill 4685. This was the subtext of Oberstar's remark. Oberstar knew and respected Douglas-Hamilton not because of his census but because he was a charismatic ethologist, featured on television, in the pages of *National Geographic*, and in his best-selling book as the man who lived with elephants. Within the committee hearing room, however, the only scientific game in town in the late 1970s was statistics. To resort to anything but a "numbers game," Douglas-Hamilton would have appeared more like a diplomat sent on behalf of the elephants than a credible scientific witness.[31] Only on rare occasions did the testimony appeal to the mental and emotional life of elephants. In 400 pages of congressional hearings, the only explicit reference to elephants as individual beings came from Christine Stevens, founder of the Animal Welfare Institute, who lamented that in the hearings so little was heard about "the elephants themselves." Ten years later, the playing field would look quite different.[32]

Douglas-Hamilton played the numbers game and lost. House Bill 4685 was defeated. More devastating, however, was the lack of support for his million-dollar Elephant Action Plan and the questioning of his census figures at the first full meeting in 1981 of the IUCN's African Elephant Specialist Group, which Douglas-Hamilton cochaired. To Douglas-Hamilton's surprise and dismay, Ian Parker, contracted by the Elephant Specialist Group to provide an economic and statistical analysis of the ivory trade, launched a vociferous attack on the pan-African survey and suggested that the ivory crisis had been completely fabricated by Douglas-Hamilton. According to Parker's calculations, the African elephant faced no threat of extinction and the ivory trade was operating within sustainable limits.[33] As the tide turned in Parker's favor, Douglas-Hamilton lost his chairmanship of the African Elephant Specialist Group. Determined to take "real action," he headed for Uganda to save the remnant elephant population in Murchison Falls National Park from extinction.[34] Armed with G3 and AK-47 automatic rifles rather than numbers, he organized a paramilitary operation to protect the 160 elephants left after the fall of Idi Amin's brutal regime and threatened by the outbreak of violence that ensued.

CONCLUSION

In 1987, at a meeting of the IUCN African Elephant and Rhino Specialist Group in Nyeri, Douglas-Hamilton found scientific opinion turning once again in his favor. Successor to the African Elephant Specialist Group, the

AERSG had commissioned in the mid-1980s, under David Western's chairmanship, a census of forest-elephant populations in the Congo Basin. Accurate estimates of forest-elephant populations had proven difficult, and Western, an ecosystem ecologist and prominent leader in international conservation circles, believed such numbers held the key to knowing whether Douglas-Hamilton's predictions about an impending crisis were warranted. In addition to Douglas-Hamilton, Western also appointed Cynthia Moss to the AERSG. Moss's appointment was significant, since she represented another "champion of elephants as individuals" on the committee, in contrast to members like Western, for whom only numbers provided a "watertight scientific case." When the AERSG met in Nyeri, they were armed with new estimates at the population size of Africa's forest elephants, which put the total African elephant population at around 800,000, well below the maximum sustainable yield of the world ivory trade. A scientific consensus emerged at the AERSG meeting that the rapid decline in the population of the African elephant was due, in large part, to the ivory trade.[35]

Western attributes the scientific consensus among members of the AERSG to the incontrovertible estimates of forest-elephant populations. Douglas-Hamilton, Moss, Poole, and others at the meeting whose scientific studies approached elephants as individuals have a different perspective. Poole's presentation at the AERSG referred little to population dynamics or the ivory trade. Instead it focused on the complex social life and communication found among the elephants of Amboseli National Park and their moral status. After the AERSG meeting, Douglas-Hamilton, Moss, Payne, and Poole banded together to launch a public outreach campaign to generate a groundswell of support to raise the status of the elephant from appendix II to appendix I at the upcoming 1989 Convention on International Trade in Endangered Species meeting in Lausanne, Switzerland.

In viewing elephants as individuals, Douglas-Hamilton, Moss, Payne, and Poole forged a critical alliance with animal rights groups and the media, outside the traditional network of scientists and international environmental organizations. Moss's hugely successful 1988 book *Elephant Memories* did much to promote pachyderm personalities and instill in the public a belief in their moral rights. Moss convinced the African Wildlife Foundation, a small, 24,000-member conservation group, to launch an advertising campaign in the spring of 1988 denouncing the ivory trade and alerting the public to its impact on elephants. One year later, it stepped up its efforts with a full-page ad in the Sunday *New York Times*, which featured Joyce Poole's photograph of a poached elephant with its face hacked off. The Douglas-Hamilton's Boadicea also became a featured celebrity in the ad campaign aimed to dissuade the public from buying ivory. Christine

Stevens, who was at the Washington center of the "Humaniacs," the derogatory label environmental groups like the World Wildlife Fund (WWF) commonly use to refer to animal rights organizations, helped organize the Humane Society, Friends of Animals, and the Animal Welfare Institute in their filing a petition with the Interior Department in the spring of 1989 to have the elephant declared an endangered species.[36] Ten years before, Douglas-Hamilton had grounded his case in statistics and aligned himself with established international environmental organizations like the WWF. But as the Humaniacs were quickly stealing the thunder from these groups over a worldwide ivory ban, Douglas-Hamilton found that his ethological and behavioral studies of individual elephants were far more compelling to powerful lobby groups and media organizations inside and outside of Washington than the methods of population ecologists. When CITES convened at Lausserne, Switzerland, in October of 1989, the moral rights of elephants were explicitly on the agenda for the first time.

Since the 1989 CITES convention, Douglas-Hamilton and Moss have traded upon their personalities and that of their elephants, as well as their photographic techniques, in enlisting the support of PBS, the BBC, the Discovery Channel, and Chivas Regal, to name a few, in funding and promoting their research and conservation efforts. The Discovery Channel's Web site for "Africa's Elephant Kingdom," for example, contains direct links to Iain Douglas-Hamilton's organization, Save the Elephants, where viewers can follow, thanks to the GPS, the movements of particular elephants accompanied by film clips of some featured elephant celebrities, like Esidai, and send in a contribution to help her cause. At Scirocco House, Oria's family estate on the shores of Lake Naivasha, wealthy tourists can dine with these Discovery Channel celebrities, lodge in one of their guest houses, and go on an elephant-watching safari. They can also pay homage to the legendary star Boadicaea, the grand matriarch of Manyara, whose skull sits on the veranda, staring toward Mount Longonot. In the fall of 2001, frequenters of eBay could bid for an exclusive five-day safari with the Douglas-Hamiltons that included a stay at their home and a trip to the Samburu Elephant Camp. Among the other events included in the Chivas 200 charity auction: a seven-day Tanzania safari that included a two-day visit with chimpanzee celebrity Jane Goodall at the celebrated Gombe reserve and a dinner with model and film star Charlize Theron that went for £26,300. A click on *Nature*'s Web site for Cynthia Moss's film *The Elephants of Africa* takes you through a series of hyperlinks into a host of organizations, including the Africa Wildlife Foundation and Moss's activist organization, the African Elephant Conservation Trust, where viewers can subscribe to receive recent news about the Amboseli elephants and contribute to their survival.[37]

Once on the fringes of traditional networks of power within science and conservation, Douglas-Hamilton and Moss have become powerful forces in the world of elephant conservation and research. Their success suggests the manifold ways that media networks have become an instrumental part of doing science. In the case of elephants, the research methods and techniques of ethologists, unlike population ecologists, are calibrated closely with the aesthetics and conventions of fashion photography, television, and film. Trading upon intimacy, individuals, and emotions, scientist-activists like Douglas-Hamilton and Moss have found themselves and the elephants they live with active participants in and beneficiaries of celebrity culture. We should not view this as an isolated incident of the media's powerful foothold in shaping the practice and vision of science. In media-chic fields like primatology, paleontology, and oceanography, the cultures of science and commercial media are rapidly converging. Recently, Discovery Communications, the parent company of the Discovery Channel, the Learning Channel, Animal Planet, and ten other networks provided the funding for Montana State University to launch the first MFA program of its kind in science and natural-history filmmaking. Hoping to recruit prospective filmmakers with degrees in science, the program is designed to train filmmakers "who walk the walk and talk the talk" of science.[38] And media giants like Discovery Communications are as likely to be on the list of contributors as the National Science Foundation in fostering and promoting research in certain fields. The most recent Discovery Channel/BBC epic series, *The Blue Planet*, for example, surpasses the great natural-history museum expeditions of the early twentieth century in publicity, personnel, and patronage. While few scientists have yet to worry about the paparazzi, the star-struck world of television and film are nevertheless transforming research practices and careers, as well as the subjects and sites of scientific research.[39]

NOTES

1. http://elephant.discovery.com/behind/notes.html.

2. http://elephant.discovery.com/behind/behind.html.

3. http://webcast.ucsd.edu:8080/ramgen/UCSD_TV/4618/Guestbook_DouglasHamilt.rm.

4. David L. Andrews and Steven J. Jackson, eds., *Sport Stars: The Cultural Politics of Sporting Celebrity* (London: Routledge, 2001), 3.

5. On the rise of celebrity culture and the importance of film and television technologies, see Jib Fowles, *Star Struck: Celebrity Performers and the American Public* (Washington, D.C.: Smithsonian Institution Press, 1992).

6. On the history of mechanical objectivity, see Lorraine Daston and Peter Galison, "The Image of Objectivity," *Representations* 40 (1992): 81–128; Theodore M. Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton, N.J.: Princeton University Press, 1995).

7. Gregory Bateson, "Metalogue: What is an Instinct?" in *Approaches to Animal Communication*, ed. Thomas A. Sebeok and Alexandra Ramsay (The Hague: Mouton, 1969), 20.

8. Donald Griffin, *Animal Minds* (Chicago: University of Chicago Press, 1992), 234. On mechanomorphism and classical ethology, see Eileen Crist, *Images of Animals: Anthropomorphism and Animal Mind* (Philadelphia: Temple University Press, 1999).

9. Andews and Jackson, eds., *Sport Stars*, 4.

10. George Schaller, *The Year of the Gorilla* (Chicago: University of Chicago Press, 1964), 176. Sarah Blaffer Hrdy notes that it was through her identification of and with individual female primates that traditional scientific theories about female monogamy were overturned. See, Sarah B. Hrdy, *The Woman That Never Evolved* (Cambridge, Mass.: Harvard University Press, 1981). On the place of individuals in naturalistic field studies and popular natural history, see Gregg Mitman, "Life in the Field: The Sensuous Body as Popular Naturalist's Guide," in *Primate Encounters: Models of Science, Gender, and Society*, ed. Shirley C. Strum and Linda Marie Fedigan (Chicago: University of Chicago Press, 2000), 421–35.

11. Iain Douglas-Hamilton, "On the Ecology and Behavior of the African Elephant," Ph.D. diss., Oxford University, 1972.

12. R.M. Watson and M.I.M. Turner, "A Count of the Large Mammals of the Lake Manyara National Park: Results and Discussion," *East African Wildlife Journal* 3 (1965): 95–98.

13. Daphne Sheldrick, *The Tsavo Story* (London: Collins and Harvill Press, 1973), 113. Also see Daniel B. Botkin, *Discordant Harmonies* (New York: Oxford University Press, 1990), 15–26; Christopher Campbell, "A Place for Elephants: Science, Sentiment, and Local Knowledge," master's thesis, University of Oklahoma, 1999.

14. R.M. Law, I. S. C. Parker, and R. C. B. Johnstone, *Elephants and Their Habitats: The Ecology of Elephants in North Bunyoro, Uganda* (Oxford: Clarendon Press, 1975); S.K. Eltringham, "The Work of the Nuffield Unit of Tropical Animal Ecology in the Uganda National Parks," *J. Reproduction and Fertility, Supplemental* 6 (1969): 483–86.

15. R.M. Laws, "Elephants and Men in East Africa" (lecture, University of Saskatchewan, 23 October 1969), 5–6. Also see R.M. Laws, "The Tsavo Research Project," *J. Reprod. Fert. Suppl.* 6 (1969): 495–531.

16. Laws, "Elephants and Men in East Africa," 18.

17. Congress, House Subcommittee on Fisheries and Wildlife Conservation and the Environment and the Committee on Merchant Marine and Fisheries, *African Elephants—December 13, 1977: Hearings Before the Subcommittee on Fisheries and Wildlife Conservation and the Environment and the Committee on Merchant Marine and Fisheries*, 95 Cong., 1977, serial no. 95–50, 159.

18. Peter H. Beard, *The End of the Game* (New York: Doubleday, 1977).

19. http://www.cnn.com/WORLD/9611/09/african.photog.

20. V. C. Wynne-Edwards, *Animal Dispersion in Relation to Social Behavior* (Edinburgh; Oliver and Boyd, 1962).

21. Douglas-Hamilton, *Among the Elephants*, 15, 44.

22. Iain Douglas-Hamilton and Oria Douglas-Hamilton, *Battle for the Elephants* (New York: Viking, 1992), 27.

23. "The Family That Lives with Elephants," *Survival*, Anglia/Survival, 1975.

24. Jack C. Horn, "Unforgettable Elephants," *Psychology Today* (April 1977): 88.

25. Katy Payne, "Caring Beasts . . . ," *Washington Post*, 8 April 2000. See, for example, Cynthia Moss, *Elephant Memories: Thirteen Years in the Life of an Elephant Family* (New York: William Morrow, 1988); Cynthia Moss, *Echo of the Elephants: The Story of an Elephant Family* (New York: William Morrow, 1992); Katy Payne, *Silent Thunder: In the Presence of Elephants* (New York: Simon & Schuster, 1998); Joyce Poole, *Coming of Age with Elephants* (New York: Hyperion, 1996).

26. Moss, *Elephant Memories*, 139, 37.

27. Romain Gary, *The Roots of Heaven* (New York: Simon and Schuster, 1958), 6, 37.

28. Even in his doctoral thesis, published in 1972, Douglas-Hamilton recommended that if in the future a culling program was established in Lake Manyara National Park, the northern and central clans should be left untouched. Douglas-Hamilton, "On the Ecology and Behavior of the African Elephant," 215–16.

29. Congress, House Subcommittee on Fisheries and Wildlife Conservation and the Environment and the Committee on Merchant Marine and Fisheries, *African Elephants—December 13, 1977*, 38.

30. Congress, House Committee on Merchant Marine and Fisheries, *Elephants: Hearings*, 96 Cong., serial no. 96–13, 76.

31. Douglas-Hamilton and Douglas-Hamilton, *Battle for the Elephants*, 251.

32. Congress, House Committee on Merchant Marine and Fisheries, *Elephants: Hearings*, 96 Cong., 234.

33. Ian Parker and Mohamed Amin, *Ivory Crisis* (London: The Hogarth Press, 1983).

34. Douglas-Hamilton and Douglas-Hamilton, *Battle for the Elephants*, 187.

35. Douglas-Hamilton and Douglas-Hamilton, *Battle for the Elephants*, 250. David Western, *In the Dust of Kilimanjaro* (Washington, D.C.: Island Press, 1997), 197.

36. On the ad campaign, see Raymond Bonner, *At the Hand of Man: Peril and Hope for Africa's Wildlife* (New York: Alfred A. Knopf, 1993), 117–21; Douglas-Hamilton and Douglas-Hamilton, *Battle for the Elephants*, 329–30.

37. http://elephant.discovery.com; http://www.pbs.org/wnet/nature/elephants/index.html; http://www.elephanttrust.org/; http://www.pbs.org/wnet/nature/echo/index.html.

38. http://naturefilm.montana.edu/pifaq.htm.

39. Other fields that I think would be fruitful to explore include paleontology, primatology, and oceanography, each of which has close links to commercial media in both the funding and promotion of research.