Teddy Bear Patriarchy Taxidermy in The Garden of Eden, New York City, 1908–1936

Nature teaches law and order and respect for property. If these people cannot go to the country, then the Museum must bring nature to the city.

I started my thoughts on the legend of Romulus and Remus who had been suckled by a wolf and founded Rome, but in the jungle I had my little Lord Greystoke suckled by an ape.[‡]

Experience

n the heart of New York City stands Central Park—the urban garden designed by Frederick Law Olmsted to heal the overwrought or decadent city dweller L with a prophylactic dose of nature. Across from the park the Theodore Roosevelt Memorial presides as the central building of the American Museum of Natural History, a monumental reproduction of the Garden of Eden.3 In the Garden, Western "man" may begin again the first journey, the first birth from within the sanctuary of nature. Founded just after the Civil War and dedicated to popular education and scientific research, the American Museum of Natural History is the place to undertake this genesis, this regeneration. Passing through the Museum's Roosevelt Memorial atrium into the African Hall, opened in 1936, the ordinary citizen enters a privileged space and time: the Age of Mammals in the heart of Africa, scene origins. A hope is implicit in every architectural detail: in immediate vision of the origin, perhaps the future can be fixed. By saving the beginnings, the end can be achieved and the present can be transcended. African Hall offers a unique communion with nature at its highest and yet most vulnerable moment, the moment of the interface of the Age of Mammals with the Age of Man. This communion is offered through the sense of vision by the craft of taxidermy. Its most ecstatic and skillful moment joins ape and man in visual embrace.

Restoration of the origin, the task of genetic hygiene, is achieved in Carl Akeley's African Hall by an art that began for him in the 1880s with the crude stuffing of

P. T. Barnum's elephant, Jumbo, who had been run down by a railroad train, the emblem of the Industrial Revolution. The end of his task came in the 1920s, with his exquisite mounting of the Giant of Karisimbi, the lone silverback male gorilla that dominates the diorama depicting the site of Akeley's own grave in the mountainous rain forest of the Congo, today's Zaire. So it could inhabit Akeley's monument to the purity of nature, this gorilla was killed in 1921, the same year the Museum hosted the Second International Congress of Eugenics. From the dead body of the primate, Akeley crafted something finer than the living organism; he achieved its true end, a new genesis. Decadence—the threat of the city, civilization, machine—was stayed in the politics of eugenics and the art of taxidermy. The Museum fulfilled its scientific purpose of conservation, preservation, and the production of permanence. Life was transfigured in the principal civic arena of western political theory—the natural body of man.

Behind every mounted animal, bronze sculpture, or photograph lies a profusion of objects and social interactions among people and other animals, which can be recomposed to tell a biography embracing major themes for twentieth-century United States. But the recomposition produces a story that is reticent, even mute, about Africa. H. F. Osborn, president of the American Museum from 1908–33, thought Akeley was Africa's biographer. But in a stronger sense, Akeley is America's biographer, at least for part of North America. Akeley thought in African Hall the visitor would experience nature at its moment of highest perfection. He did not dream that he crafted the means to experience a history of race, sex, and class in New York City that reached to Nairobi.

To enter the Theodore Roosevelt Memorial, the visitor must pass by a James Earle Fraser equestrian statue of Teddy majestically mounted as a father and protector between two "primitive" men, an American Indian and an African, both standing, dressed as "savages." The facade of the memorial, funded by the State of New York and awarded to the American Museum of Natural History on the basis of its competitive application in 1923, is classical, with four Ionic columns 54 feet high topped by statues of the great explorers Boone, Audubon, Lewis, and Clark. The coin-like, bas-relief seals of the United States and of the Liberty Bell are stamped on the front panels. Inscribed across the top are the words TRUTH, KNOWLEDGE, VISION and the dedication to Roosevelt as "a great leader of the youth of America, in energy and fortitude in the faith of our fathers, in defense of the rights of the people, in the love and conservation of nature and of the best in life and in man." Youth, paternal solicitude, virile defense of democracy, and intense emotional connection to nature are the unmistakable themes.

The building presents itself in many visible faces. It is at once a Greek temple, a bank, a scientific research institution, a popular museum, a neoclassical theater. One is entering a space that sacralizes democracy, Protestant Christianity, adventure, science, and commerce. Entering this building, one knows that a drama will be enacted inside. Experience in this public monument will be intensely personal; this structure is one of North America's spaces for joining the duality of self and community.

Just inside the portals, the visitor enters the sacred space where transformation of consciousness and moral state will begin. The walls are inscribed with Roosevelt's words under the headings Nature, Youth, Manhood, the State. The seeker begins in Nature: "There are no words that can tell the hidden spirit of the wilderness,

that can reveal its mystery. ... The nation behaves well if it treats its natural resources as assets which it must turn over to the next generation increased and not impaired in value." Nature is mystery and resource, a critical union in the history of civilization. The visitor-necessarily a white boy in moral state, no matter what accidents of biology or social gender and race might have pertained prior to the Museum excursion-progresses through Youth: "I want to see you game boys . . . and gentle and tender. . . . Courage, hard work, self mastery, and intelligent effort are essential to a successful life." Youth mirrors Nature, its pair across the room. The next stage is Manhood: "Only those are fit to live who do not fear to die and none are fit to die who have shrunk from the joy of life and the duty of life." Opposite is its spiritual pair, the State: "Aggressive fighting for the right is the noblest sport the world affords. . . . If I must choose between righteousness and peace, I choose righteousness." The walls of the atrium are full of murals depicting Roosevelt's life, the perfect illustration of his words. His life is inscribed in stone in a peculiarly literal way appropriate to this museum. One sees the man hunting big game in Africa, conducting diplomacy in the Philippines and China, helping boy and girl scouts, receiving academic honors, and presiding over the Panama Canal ("The land divided, the world united").

Finally, in the atrium stand the striking life-size bronze sculptures by Carl Akeley of the Nandi spearmen of East Africa on a lion hunt. These African men and the lion they kill symbolize for Akeley the essence of the hunt, of what would later be named "man the hunter." Discussing the lion spearers, Akeley referred to them as men. In every other circumstance he referred to adult male Africans as boys. Roosevelt, the modern sportsman, and the "primitive" Nandi share in the spiritual truth of manhood. The noble sculptures express Akeley's great love for Roosevelt, his friend and hunting companion in Africa in 1910 for the killing of one of the elephants which Akeley mounted for the Museum. Akeley said he would follow Roosevelt anywhere because of his "sincerity and integrity" (Akeley 1923: 162).

In the Museum shop in the atrium in the 1980s, one may purchase T.R.: Champion of the Strenuous Life, a photographic biography of the 26th president. Every aspect of the fulfillment of manhood is depicted, even death is labeled "The Great Adventure." One learns that after defeat in the presidential campaign of 1912, Roosevelt undertook the exploration of the Amazonian tributary, the River of Doubt, under the auspices of the American Museum of Natural History and the Brazilian Government. It was a perfect trip. The explorers nearly died, the river had never before been seen by white men, and the great stream, no longer doubtful, was renamed Rio Roosevelt by the Brazilian State. In the picture biography, which includes a print of the adventurers paddling their primitive dugout canoe (one assumes before starvation and jungle fever attenuated the ardor of the photographer), the former president of a great industrial power explains his return to the wilderness: "I had to go. It was my last chance to be a boy" (Johnson 1958: 138, 126-7).

The joining of life and death in these icons of Roosevelt's journeys and in the architecture of his stony memorial announces the central moral truth of the Museum. This is the effective truth of manhood, the state conferred on the visitor who successfully passes through the trial of the Museum. The body can be transcended. This is the lesson Simone de Beauvoir so painfully remembered in the Second Sex; man is the sex which risks life and in so doing, achieves his existence. In the upside down world of Teddy Bear Patriarchy, it is in the craft of killing that life is

constituted moral the accident of personal, material birth. Roosevelt is the perfect locustical to the Museum's task of regeneration of a miscellaneous, incoherent urban public threatened with genetic and social decadence, threatened with the prolific bodies of the new immigrants, threatened with the failure of manhood. The Akeley African Hall itself is simultaneously a very strange place and an

ordinary operience for literally millions of North Americans over more than five decades. The types of display in this hall are spread all over the country, and even the world partly due to the craftspeople Akeley himself trained. In the 1980s sacrilege is perhaps more evident than liminal experience of nature. What is the experience of New York streetwise kids wired to Walkman radios and passing the Friday afternoon cocktail bar by the lion diorama? These are the kids who came to the Museum to see the high tech Nature-Max films. But soon, for those not physically wired into the communication system of the late twentieth century, another time begins to take form. The African Hall was meant to be a time machine, and it is (Fabian 1983: 144). The individual enters the age of Mammals. But one enters alone, each individual soul, as part of no stable prior community and without confidence in the substance of one's body, in order to be received into a saved community. One begins in the threatening chaos of the industrial city, part of a horde, but here one will come to belong, to find substance. No matter how many people crowd the Great Hall, the experience is of individual communion with nature. The sacrament will be enacted for each worshipper. This nature is not constituted from a probability calculus. This is not a random world, populated by late twentieth-century cyborgs, for whom the threat of decadence is a nostalgic memory of a dim organic past, but the moment of origin where nature and culture, private and public, profane and sacred meet-a moment of incarnation in the encounter of man and animal.

The Hall is darkened, lit only from the display cases which line the sides of the spacious room. In the center of the Hall is a group of elephants so lifelike that a moment's fantasy suffices for awakening a premonition of their movement, perhaps an angry charge at one's personal intrusion. The elephants stand like a high altar in the nave of a great cathedral. That impression is strengthened by one's growing consciousness of the dioramas that line both sides of the main Hall and the spacious gallery above. Lit from within, the dioramas contain detailed and lifelike groups of large African mammals—game for the wealthy New York hunters who financed this experience. Called habitat groups, they are the culmination of the taxidermist's art. Called by Akeley a "peep-hole into the jungle," each diorama presents itself as a side altar, a stage, an unspoiled garden in nature, a hearth for home and family. As an altar, each diorama tells a part of the story of salvation history; each has its special emblems indicating particular virtues. Above all, inviting the visitor to share in its revelation, each tells the truth. Eachs offers a vision. Each is a window onto knowledge.

A diorama is eminently a story, a part of natural history. The story is told in the pages of nature, read by the naked eye. The animals in the habitat groups are captured in a photographer's and sculptor's vision. They are actors in a morality play on the stage of nature, and the eye is the critical organ. Each diorama contains a small group of animals in the foreground, in the midst of exact reproductions of plants, insects, rocks, soil. Paintings reminiscent of Hollywood movie set art curve in back of the group and up to the ceiling, creating a great panoramic vision of a

scene on the African continent. Each painting is minutely appropriate to the particular animals in the foreground. Among the 28 dioramas in the Hall, all the major geographic areas of the African continent and most of the large mammals are represented.

Gradually, the viewer begins to articulate the content of the story. Most groups are made up of only a few animals, usually a large and vigilant male, a female or two, and one baby. Perhaps there are some other animals—a male adolescent maybe. never an aged or deformed beast. The animals in the group form a developmental series, such that the group can represent the essence of the species as a dynamic, living whole. The principles of organicism, that is, of the laws of organic form, rule the composition. 11 There is no need for the multiplication of specimens because the series is a true biography. Each animal is an organism, and the group is an organism. Each organism is a vital moment in the narrative of natural history, condensing the flow of time into the harmony of developmental form. The groups are peaceful, composed, illuminated—in "brightest Africa."12 Each group forms a community structured by a natural division of function; the whole animal in the whole group is nature's truth. The physiological division of labor that has informed the history of biology is embodied in these habitat groups which tell of communities and families, peacefully and hierarchically ordered. Sexual specialization of functionthe organic bodily and social sexual division of labor-is unobtrusively ubiquitous, unquestionable, right. The African buffalo, the white and black rhinos, the lion, the zebra, the mountain nyala, the okapi, all find their place in the differentiated developmental harmony of nature. The racial division of labor, the familial progress from youthful native to adult white man, was announced at the steps leading to the building itself; Akeley's original plan for African Hall included bas-relief sculptures of all the "primitive" tribes of Africa complementing the other stories of natural wild life in the Hall. Organic hierarchies are embodied in every organ in the articulation of natural order in the Museum.15

But there is a curious note in the story; it begins to dominate as scene after scene draws the visitor into itself through the eyes of the animals in the tableaux.14 Each diorama has at least one animal that catches the viewer's gaze and holds it in communion. The animal is vigilant, ready to sound an alarm at the intrusion of man, but ready also to hold forever the gaze of meeting, the moment of truth, the original encounter. The moment seems fragile, the animals about to disappear, the communion about to break; the Hall threatens to dissolve into the chaos of the Age of Man. But it does not. The gaze holds, and the wary animal heals those who will look. There is no impediment to this vision, no mediation. The glass front of the diorama forbids the body's entry, but the gaze invites his visual penetration. The animal is frozen in a moment of supreme life, and man is transfixed. No merely living organism could accomplish this act. The specular commerce between man and animal at the interface of two evolutionary ages is completed. The animals in the dioramas have transcended mortal life, and hold their pose forever, with muscles tensed, noses aquiver, veins in the face and delicate ankles and folds in the supple skin all prominent. No visitor to a merely physical Africa could see these animals. This is a spiritual vision made possible only by their death and literal re-presentation. Only then could the essence of their life be present. Only then could the hygiene of nature cure the sick vision of civilized man. Taxidermy fulfills the fatal desire to represent, to be whole; it is a politics of reproduction.

There is one diorama that stands out from all the others, the gorilla group. It is not simply that this group is one of the four large corner displays. There is something special in the painting with the steaming volcano in the background and Lake Kivu below, in the pose of the enigmatic large silverback rising above the group in a chest-beating gesture of alarm and an unforgettable gaze in spite of the handicap of glass eyes. The painter's art was particularly successful in conveying the sense of limitless vision, of a panorama without end around the focal lush green garden. This is the scene that Akeley longed to return to. It is where he died, feeling he was at home as in no other place on earth. It is where he first killed a gorilla and felt the enchantment of a perfect garden. After his first visit in 1921, he was motivated to convince the Belgian government to make this area the first African national park to ensure a sanctuary for the gorilla. But the viewer does not know these things when he sees the five animals in a naturalistic setting. It is plain that he is looking at a natural family of close human relatives, but that is not the essence of this diorama. The viewer sees that the elephants, the lion, the rhino, and the water hole group-with its peaceful panorama of all the grassland species, including the carnivores, caught in a moment outside the Fall-all these have been a kind of preparation, not so much for the gorilla group, as for the Giant of Karisimbi. This double for man stands in a unique personal individuality, his fixed face molded forever from the death mask cast from his corpse by a taxidermist in the Kivu Mountains. Here is natural man, immediately known. His image may be purchased on a picture postcard at the desk in the Roosevelt atrium. [Figure 3.1]

It would have been inappropriate to meet the gorilla anywhere else but on the mountain. Frankenstein and his monster had Mont Blanc for their encounter; Akeley and the gorilla first saw each other on the lush volcanoes of central Africa. The glance proved deadly for them both, just as the exchange between Victor Frankenstein and his creature froze each of them into a dialectic of immolation. But Frankenstein tasted the bitter failure of his fatherhood in his own and his creature's death; Akeley resurrected his creature and his authorship in both the sanctuary of Parc Albert and the African Hall of the American Museum of Natural History. Mary Shelley's story may be read as a dissection of the deadly logic of birthing in patriarchy at the dawn of the age of biology; her tale is a nightmare about the crushing failure of the project of man. But the taxidermist labored to restore manhood at the interface of the Age of Mammals and the Age of Man. Akeley achieved the fulfillment of a sportsman in Teddy Bear Patriarchy—he died a father to the game, and their sepulcher is named after him, the Akeley African

The gorilla was the highest quarry of Akeley's life as artist, scientist, and hunter, but why? He said himself (through his ghostwriter, the invisible Dorothy Greene), "To me the gorilla made a much more interesting quarry than lions, elephants, or any other African game, for the gorilla is still comparatively unknown" (Akeley 1923: 190). But so was the colobus monkey or any of a long list of animals. What qualities did it take to make an animal "game"? One answer is similarity to man, the ultimate quarry, a worthy opponent. The ideal quarry is the "other," the natural self. That is one reason Frankenstein needed to hunt down his creature. Hunter, scientist, and artist all sought the gorilla for his revelation about the nature and future of manhood. Akeley compared and contrasted his quest for the gorilla with the French-American Paul du Chaillu's, the first white man to kill a gorilla, in 1855,

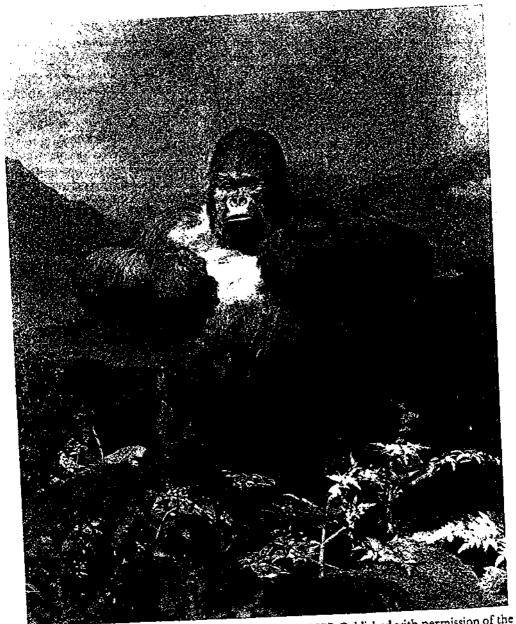


Figure 3.1 The Giant of Karisimbi. Negative no. 315077. Published with permission of the Department of Library Services, American Museum of Natural History.

eight years after it was "discovered" to science. Du Chaillu's account of the encounter stands as the classic portrayal of a depraved and vicious beast killed in the heroic, dangerous encounter. Disbelieving du Chaillu, Akeley told his own readers how many times du Chaillu's publishers made him rewrite until the beast was fierce enough. Frankenstein plugged up his ears rather than listen to his awful son claim a gentle and peace loving soul. Akeley was certain he would find a noble and

Bearen beast so he brought his guns, cameras, and white women into the garden to the women into the garden and white women into the garden to the face of a charging alter-

Eike auchaillu, Akeley came upon a sign of the animal, a footprint, or in Akeley's case all properties, before meeting face to face. "I'll never forget it. In that mud hole were the marks of four great knuckles where the gorilla had placed his hand on the grounds. There is no other track like this in the world—there is no other hand in therworlds o large. . . . As I looked at that track I lost the faith on which I had brought my party to Africa. Instinctively I took my gun from the gun boy" (Akeley 1923 203). Later, Akeley told that the handprint, not the face, gave him his greatest thrill the the hand the trace of kinship writ large and terrible struck the craftsman, But then, on the first day out from camp in gorilla country, Akeley did meet a gorlla face to face, the creature he had sought for decades, prevented from earlier success by mauling elephants, stingy millionaires, and world war. Within minutes of his first glimpse of the features of the face of an animal he longed more than anything to see, Akeley had killed him, not in the face of a charge, but through a dense forest screen within which the animal hid, rushed, and shook branches. Surely the taxidermist did not want to risk losing his specimen, for perhaps there would be no more. He knew the Prince of Sweden was just then leaving Africa after having shot fourteen of the great apes in the same region. The animals must be wary of new hunters; collecting might be very difficult.

Whatever the rational or fantastic logic that ruled the first shot, precisely placed into the aorta, the task that followed was arduous indeed—skinning the animal and transporting various remains back to camp. The corpse had nearly miraculously lodged itself against the trunk of a tree above a deep chasm. As a result of Herculean labors, which included casting the death mask pictured in *Lions, Gorillas, and their Neighbors* (Akeley and Akeley 1922), Akeley was ready for his next gorilla hunt on the second day after shooting the first ape. The pace he was setting himself was grueling, dangerous for a man ominously weakened by tropical fevers. "But science is a jealous mistress and takes little account of a man's feelings." The second quest resulted in two missed males, a dead female, and her frightened baby speared by the porters and guides. Akeley and his party had killed or attempted to kill every ape they had seen since arriving in the area.

On his third day out, Akeley took his cameras and ordered his guides to lead toward easier country. With a baby, female, and male, he could do a group even if he got no more specimens. Now it was time to hunt with the camera. '6 "Almost before I knew it I was turning the crank of the camera on two gorillas in full view with a beautiful setting behind them. I do not think at the time I appreciated the fact that I was doing a thing that had never been done before" (Akeley 1923: 221). But the photogenic baby and mother and the accompanying small group of other gorillas had become boring after two hundred feet of film, so Akeley provoked an action shot by standing up. That was interesting for a bit. "So finally, feeling that I had about all I could expect from that band, I picked out one that I thought to be an immature male. I shot and killed it and found, much to my regret, that it was a female. As it turned out, however, she was such a splendid large specimen that the feeling of regret was considerably lessened" (Akeley 1923: 222).

Satisfied with the triumphs of his gun and camera, Akeley decided it was time to ask the rest of the party waiting in a camp below to come up to hunt gorillas. He

was getting considerably sicker and feared he would not fulfill his promise to his friends to give them gorilla. His whole purpose in taking white women into gorilla country depended on meeting this commitment: "As a naturalist interested in preserving wild life, I was glad to do anything that might make killing animals less attractive." The best thing to reduce the potency of game for heroic hunting is to demonstrate that inexperienced women could safely do the same thing. Science had already penetrated; women could follow.

Two days of hunting resulted in Herbert Bradley's shooting a large silverback, the one Akeley compared to Jack Dempsey and mounted as the lone male of Karisimbi in African Hall. It was now possible to admit another level of feeling: "As he lay at the base of the tree, it took all one's scientific ardour to keep from feeling like a murderer. He was a magnificent creature with the face of an amiable giant who would do no harm except perhaps in self defense or in defense of his family" (Akeley 1923: 230). If he had succeeded in his aborted hunt, Victor Frankenstein

The photograph in the American Museum film archive of Carl Akeley, Herbert Bradley, and Mary Hastings Bradley holding up the gorilla head and corpse to be recorded by the camera is an unforgettable image. The face of the dead giant evokes Bosch's conception of pain, and the lower jaw hangs slack, held up by Akeley's hand. The body looks bloated and utterly heavy. Mary Bradley gazes smilingly at the faces of the male hunters, her own eyes averted from the camera. Akeley and Herbert Bradley look directly at the camera in unshuttered acceptance of their act. Two Africans, a young boy and a young man, perch in a tree above the scene, one looking at the camera, one at the hunting party. The contrast of this scene of death with the diorama framing the giant of Karisimbi mounted in New York is total; the animal came to life again, this time immortal.

There was no more need to kill, so the last capture was with the camera. "The guns were put behind and the camera pushed forward and we had the extreme satisfaction of seeing the band of gorillas disappear over the crest of the opposite ridge none the worse for having met with white men that morning. It was a wonderful finish to a wonderful gorilla hunt" (Akeley 1923: 235). Once domination is complete, conservation is urgent. But perhaps preservation comes too late.

What followed was the return to the United States and active work for an absolute gorilla sanctuary providing facilities for scientific research. Akeley feared the gorilla would be driven to extinction before it was adequately known to science (Akeley 1923: 248). Scientific knowledge canceled death; only death before knowledge was final, an abortive act in the natural history of progress. His health weakened but his spirit at its height, Akeley lived to return to Kivu to prepare paintings and other material for the gorilla group diorama. Between 1921 and 1926, he mounted his precious gorilla specimens, producing that extraordinary silverback whose gaze dominates African Hall. When he did return to Kivu in 1926, he was so exhausted from his exertions to reach his goal that he died on November 17, 1926, almost immediately after he and his party arrived on the slopes of Mt. Mikena, "in the land of his dreams" (M. J. Akeley 1929b: Chpt. XV).

Akeley's was a literal science dedicated to the prevention of decadence, of biological decay. His grave was built in the heart of the rain forest on the volcano, where "all the free wild things of the forest have perpetual sanctuary" (M. J. Akeley 1940: 341). Mary Jobe Akeley directed the digging of an eight-foot vault

in a process and rock. The hole was lined with closely set wooden beams. The coffine affed on the site out of solid native mahogany and lined with heavy salvabled scel salvaged from the boxes used to pack specimens to protect them from moces and other damage. Then the coffin was upholstered with camp blanker a slab of cement ten by twelve feet and five inches thick was poured on top of the grave and inscribed with the name and date of death of the father of the game. The cement had been carried on porters' backs all the way from the nearest source in Kibale, Uganda. The men ditched the first load in the face of the difficult trails; they were sent back for a second effort. An eight-foot stockade fence was built around the grave to deter buffalo and elephant from desecrating the site. "Derscheid, Raddatz, Bill and I worked five days and five nights to give him the best home we could build, and he was buried as I think he would have liked with a simple reading service and a prayer" (M. J. Akeley 1929b 189-90). The grave was inviolate, and reincarnation of the natural self would be immortal in African Hall. In 1979, "grave robbers, Zairoise poachers, violated the site and carried off [Akeley's] skeleton" (Fossey 1983: 3).

Biography

For this untruthful picture Akeley substitutes a real gorilla." (Osborn, in Akeley 1923: xii)

Of the two I was the savage and the aggressor. (Akeley 1923: 216)

Akeley sought to craft a true life, a unique life. The life of Africa became his life, his telos. But it is not possible to tell his life from a single point of view. There is a polyphony of stories, and they do not harmonize. Each source for telling the story of Akeley's life speaks in an authoritative mode, but I felt compelled to compare the versions, and then to cast Akeley's story in an ironic mode, the register most avoided by my subject. Akeley wanted to present an immediate vision; I would like to dissect and make visible layer after layer of mediation. I want to show the reader how the experience of the diorama grew from the safari in specific times and places, how the camera and the gun together are the conduits for the spiritual commerce of man and nature, how biography is woven into and from a social and political tissue. I want to show how the stunning animals of Akeley's achieved dream in African Hall are the product of particular technologies, i.e., the techniques of effecting meanings.

Life Stories

In harmony with the available plots in U.S. history, it is necessary that Carl Akeley (1864–1926) was born on a farm in New York of poor, but vigorous, old, (white—the only trait that didn't need to be named), American stock. The time of his birth, near the end of the Civil War, was an end and a beginning for so much in North America, including the history of biology and the structure of wealth and social class. In a boyhood full of hard farm labor, he learned self-reliance and skill with tools and machines. He passed long hours alone watching and hunting the wildlife of New York. By the age of 13, aroused by a borrowed book on the subject, Akeley

was committed to the vocation of taxidermy. His vocation's bibliogenesis seems also ordained by the plot. At that age (or age 16 in some versions), he had a business card printed up. No Yankee boy could miss the connection of life's purpose with business, although young Carl scarcely believed he could make his living at such a craft. He took lessons in painting, so that he might provide realistic backgrounds for the birds he ceaselessly mounted. From the beginning Akeley's life had a single focus: the recapturing and representation of the nature he saw. On this point all the versions of Akeley's life concur.

After the crops were in, at the age of 19, Akeley set off from his father's farm "to get a wider field for my efforts" (Akeley 1923: 1). First he tried to get a job with a local painter and interior decorator whose hobby was taxidermy, but this man directed the boy to an institution which changed his life-Ward's Natural Science Establishment in Rochester, where Akeley would spend four years and form a friendship pregnant with consequences for the nascent science of ecology as it came to be practiced in museum exhibition. Ward's provided mounted specimens and natural history collections for practically all the museums in the nation. Several important men in the history of biology and museology in the United States passed through this curious institution, including Akeley's friend, William Morton Wheeler. Wheeler completed his career in entymology at Harvard, a founder of the science of animal ecology (which he called ethology—the science of the character of nature) and a mentor to the great organicists and conservative social philosophers in Harvard's biological and medical establishment (Russett 1966; Evans and Evans 1970; Cross and Albury 1987). Wheeler was then a young Milwaukee naturalist steeped in German "Kultur" who began tutoring the rustic Akeley for entry into Yale's Sheffield Scientific School. However, eleven hours of taxidermy in the day and long hours of study proved too much; so higher education was postponed, later permanently, in order to follow the truer vocation of reading nature's book directly.

Akeley was disappointed at Ward's because business imperatives allowed no room for improvement of taxidermy. He felt animals were "upholstered." Developing his own skill and technique in spite of the lack of encouragement, and the lack of money, he got a chance for public recognition when P. T. Barnum's famous elephant was run down by a locomotive in Canada in 1885. Barnum did not want to forego the fame and profit from continuing to display the giant (who had died trying to save a baby elephant, we are told), so Akeley and a companion were dispatched to Canada from Rochester to save the situation. Six butchers from a nearby town helped with the rapidly rotting carcass. What Akeley learned about very large mammal taxidermy from this experience laid the foundation for his later revolutionary innovations in producing light, strong, life-like pachyderms. The popular press followed the monumental mounting, and the day Jumbo was launched in his own railroad car into his post-mortem career, half the population of Rochester witnessed the resurrection.

In 1885, Wheeler returned to Milwaukee to teach high school and soon took up a curatorship in the Milwaukee Museum of Natural History. Wheeler urged his friend to follow, hoping to continue his tutoring and to secure Akeley commissions for specimens from the museum. Museums did not then generally have their own taxidermy departments, although around 1890 taxidermic technique flowered in Britain and the United States. Akeley opened his business shop on the Wheeler family property, and he and the naturalist spent long hours

discussing natural history, finding themselves in agreement about museum display and about the character of nature. The most important credo for them both was the need to develop scientific knowledge of the whole animal in the whole group in nature—i.e., they were committed organicists. Wheeler soon became director of the Milwaukee Museum and gave Akeley significant support. Akeley had conceived the idea for habitat groups and wished to mount a series illustrating the fur-bearing animals of Wisconsin. His completed muskrat group (1889), minus the painted backgrounds, was probably the first mammalian habitat group anywhere.

As a result of a recommendation from Wheeler, in 1894 the British Museum invited Akeley to practice his trade in that world-famous institution. On the way to London, Akeley visited the Field Museum in Chicago, met Daniel Giraud Elliot and accepted his offer of preparing the large collection of specimens the Museum had bought from Ward's. In 1896, Akeley made his first collecting expedition to Africa, to British Somaliland, a trip that opened a new world to him. This was the first of five safaris to Africa, each escalating his sense of the purity of the continent's vanishing wildlife and the conviction that the meaning of his life was its preservation through transforming taxidermy into an art. He was next in Africa for the Field Museum in 1905, with his explorer/adventurer/author wife, Delia, to collect elephants in British East Africa. On this trip Akeley escaped with his life after killing a leopard in hand-to-fang combat.

In Chicago Akeley spent four years largely at his own expense preparing the justly famous Four Seasons deer dioramas. In 1908, at the invitation of the new president, H. F. Osborn, who was anxious to mark his office with the discovery of major new scientific laws and departures in museum exhibition and public education, Akeley moved to New York and the American Museum of Natural History in hope of preparing a major collection of large African mammals. From 1909–11 Carl and Delia collected in British East Africa, a trip marked by a hunt with Theodore Roosevelt and his son Kermit, who were collecting for the Washington National Museum. The safari was brought to a limping conclusion by Carl's being mauled by an elephant, delaying fulfillment of his dream of collecting gorillas. His plan for the African Hall took shape by 1911 and ruled his behavior thereafter. In World War I he was a civilian Assistant Engineer to the Mechanical and Devices Section of the Army. He is said to have refused a commission in order to keep his freedom to speak freely to anyone in the hierarchy.

During the war, his work resulted in several patents in his name. The theme of Akeley the inventor recurs constantly in his life story. Included in his roster of inventions, several of which involved subsequent business development, were a motion picture camera, a cement gun, and new taxidermic processes.

With the close of war, Akeley focused his energy on getting backing for the African Hall. He needed more than a million dollars. Lecture tours, articles, a book, and endless promotion brought him into touch with the major wealthy sportsmen of New York, but sufficient financial commitment eluded him. In 1921, financing half the expense himself, Akeley left for Africa, this time accompanied by a married couple, their 5-year-old daughter, their governess, and Akeley's adult niece whom he had promised to take hunting in Africa. In 1923 in New York, Carl and Delia divorced—an event unrecorded in versions of his life; Delia just disappears from the narratives. In 1924 Akeley married Mary L. Jobe, the explorer/adventurer/

author who accompanied him on his last adventure, the Akeley-Eastman-Pomeroy African Hall Expedition, that collected for ten dioramas of the Great Hall. George Eastman, of Eastman Kodak fortunes, and Daniel Pomeroy, the benefactors, accompanied the taxidermist-hunter to collect specimens. Eastman, then 71 years old, went with his own physician and commanded his own railroad train for part of the excursion.

En route to Africa the Akeleys were received by the conservationist and war hero Belgian king, Albert. He was the son of the infamous Leopold II, whose personal rapacious control of the Congo for profit was wrested away and given to the Belgian government by other European powers in 1908. Leopold II had financed Henry Stanley's explorations of the Congo. Akeley is narrated as a man like the great explorers, Stanley and Livingstone, but also as the man who witnessed, and helped birth, a new "bright" Africa. The "enlightened" Albert, led to his views on national parks by a visit to Yosemite, confirmed plans for the Parc Albert and commissioned the Akeleys to prepare topographical maps and descriptions of the area in cooperation with the Belgian naturalist, Jean Derscheid. There was no room for a great park for the Belgians in Europe, so "naturally" one was established in the Congo. Mandating protection for the Pygmies within park boundaries, the park was to provide sanctuary for "natural primitives," as well as foster scientific study by establishing permanent research facilities. After ten months of collecting, Carl and Mary Jobe set off for the Kivu forest, the heart of remaining unspoiled Africa, where he died and was buried "in ground the hand of man can never alter or profane" (M. J. Akeley 1940: 340).

Taxidermy: From Upholstery to Epiphany

Transplanted Africa stands before him—a result of Akeley's dream. (Clark 1936: 73)

The vision Carl Akeley had seen was one of jungle peace. His quest to embody this vision justified to himself his hunting, turned it into a tool of science and art, the scalpel that revealed the harmony of an organic, articulate world. Let us follow Akeley briefly through his technical contributions to taxidermy in order to grasp more fully the stories he needed to tell about the biography of Africa, the life history of nature.

It is a simple tale: Taxidermy was made into the servant of the "real." Artifactual children, better than life, were birthed from dead matter (Sofoulis 1988). Akeley's vocation, and his achievement, was the production of an organized craft for eliciting unambiguous experience of organic perfection. Literally, Akeley "typified" nature, made nature true to type. Taxidermy was about the single story, about nature's unity, the unblemished type specimen. Taxidermy became the art most suited to the epistemological and aesthetic stance of realism. The power of this stance is in its magical effects: what is so painfully constructed appears effortlessly, spontaneously found, discovered, simply there if one will only look. Realism does not appear to be a point of view, but appears as a "peephole into the jungle" where peace may be witnessed. Epiphany comes as a gift, not as the fruit of merit and toil, soiled by the hand of man. Realistic art at its most deeply magical issues in revelation. This art repays labor with transcendence. Small wonder that artistic realism and biological

scient were twin brothers in the founding of the civic order of nature at the American Museum of Natural History. It is also natural that taxidermy and biology depend indamentally upon vision in a hierarchy of the senses; they are tools for the construction, discovery of form.

Ateley's eight years in Milwaukee from 1886 to 1894 were crucial for his working four techniques that served him the rest of his life. The culmination of that period was a field of a male Virginia deer that won first place in the first Sportsman's Show, in New York City in 1895. The judge in that national competition was Theodore Roosevelt, whom Akeley did not meet until they befriended each other on safari in Africa in 1906. The head, entitled "The Challenge," displayed a buck "in the full frenzy of his virility as he gave the defiant roar of the rutting season—the call to fierce combat" (M. J. Akeley 1940: 38). Jungle peace was not a passive affair, nor one unmarked by gender.

The head was done in a period of experimentation leading to the production of the Four Seasons group in Chicago, installed in 1902. In crafting those groups over four years, Akeley worked out his manikin method, clay modeling, plaster casting, vegetation molding techniques, and the organized production system. He hired women and men workers by the hour to turn out the thousands of individual leaves needed to clothe the trees in the scenes. Charles Abel Corwin painted background canvases from studies in the Michigan Iron Mountains where the animals were collected. Akeley patented his vegetation process, but gave rights for its use free of charge to the Field Museum in Chicago. He allowed free, worldwide use of his patented methods of producing light, strong papier-mache manikins from exact clay models and plaster casts. Cooperation in museum development was a fundamental value for Akeley, who did not make much money at his craft and whose inventions were significant for economic survival.

Akeley continued to make improvements in his taxidermic technique throughout his life, and he taught several other key workers, including James Lipsitt Clark, who was the Director of Arts, Preparation, and Installation at the American Museum after Akeley's death when African Hall was actually constructed. While Akeley worked long hours alone, taxidermy as he helped to develop it was not a solitary art. Taxidermy requires a complex system of coordination and division of labor. beginning in the field during the hunting of the animals and culminating in a finished diorama. A minimum list of workers on one of Akeley's projects includes taxidermists, collectors, artists, anatomists, and "accessory men" (M. J. Akeley 1940: 217). Pictures of work in the Museum taxidermy studios show men (males, usually white) tanning hides, working on clay models of sizable mammals (including elephants) or on plaster casts, assembling skeleton and wood frames, consulting scale models of the planned display, doing carpentry, making vegetation, sketching, etc. Clark reports that between 1926 and 1936, when African Hall opened, still unfinished, the staff of the project usually employed about 45 men. Painting the backgrounds was a major artistic specialization, and the artists based their final panoramas on numerous studies done at the site of collection. In the field, the entire operation rested on the organization of the safari, a complex social institution where race, sex, and class came together intensely. Skinning a large animal could employ 50 workers for several hours. Photographs, moving picture records, death masks, extensive anatomical measurements, initial treatment of skins, and sketches occupied the field workers. The production of a modern diorama involved the work of

hundreds of people in a social system embracing structures of skill and authority on a worldwide scale.

How can such a system produce a unified biography of nature? How is it possible to refer to Akeley's African Hall when it was constructed after he died? On an ideological level, the answer to these questions connects to the ruling conception of organicism, an organic hierarchy, conceived as nature's principle of organization. Clark stressed the importance of "artistic composition" and described the process as a "recreation" of nature based on the principles of organic form. This process required a base of "personal experience," ideally actual presence in Africa, at the site of the animal's life and death. Technical crafts are always imagined to be subordinated by the ruling artistic idea, itself rooted authoritatively in nature's own life. "Such things must be felt, must be absorbed and assimilated, and then in turn, with understanding and enthusiasm, given out by the creator. . . . Therefore, our groups are very often conceived in the very lair of the animals" (Clark 1936: 71).

The credos of realism and organicism interdigitate; both are systematizations of organization by a hierarchical division of labor, perceived as natural and so productive of unity. Unity must be authored in the Judeo-Christian myth system; just as nature has an Author, so does the organism or the realistic diorama. The author must be imagined with the aspects of mind, in relation to the body which executes. Akeley was intent on avoiding lying in his work; his craft was to tell the truth of nature. There was only one way to achieve such truth—the rule of mind rooted in the claim to experience. All the work must be done by men who did their collecting and studies on the spot because "[o]therwise, the exhibit is a lie and it would be nothing short of a crime to place it in one of the leading educational institutions of the country" (Akeley 1923: 265). A single mind infused collective experience: "If an exhibition hall is to approach its ideal, its plan must be that of a master mind, while in actuality it is the product of the correlation of many minds and hands" (Akeley 1923: 261). The "mind" is spermatic.

But above all, this sense of telling a true story rested on the selection of individual animals, the formation of groups of "typical" specimens. What was the meaning of "typical" for Akeley and his contemporaries in the biological departments of the American Museum of Natural History? What are the contents of these stories, and what must one do to see these contents? To respond, we must follow Carl Akeley into the field and watch him select an animal to mount. Akeley's concentration on finding the typical specimen, group, or scene cannot be overemphasized. But how could he know what was typical, or that such a state of being existed? This problem has been fundamental in the history of biology; one effort at solution is embodied in African Hall.

First, the concept includes the notion of perfection. The large bull giraffe in the water hole group in African Hall was the object of a hunt over many days in 1921. Several animals were passed over because they were too small or not colored beautifully enough. Remembering record trophies from earlier hunters undermined satisfaction with a modern, smaller specimen taken from the depleted herds of vanishing African nature. When at last the bull was taken as the result of great skill and daring, the minute details of its preservation and recreation were lovingly described.

Similarly, in 1910-11, the hunt for a large bull elephant provided the central drama of the safari for the entire two years. An animal with asymmetrical tusks was

rejected, despite his imposing size. Character, as well as mere physical appearance, was important in judging an animal to be perfect. Cowardice would disqualify the most lovely and properly proportioned beast. Ideally, the killing itself had to be accomplished as a sportsmanlike act. Perfection was heightened if the hunt were a meeting of equals. So there was a hierarchy of game according to species: lions, elephants, and giraffes far outranked wild asses or antelope. The gorilla was the supreme achievement, almost a definition of perfection in the heart of the garden at the moment of origin. Perfection inhered in the animal itself, but the fullest meanings of perfection inhered in the meeting of animal and man, the moment of perfect vision, of rebirth. Taxidermy was the craft of remembering this perfect experience. Realism was a supreme achievement of the artifactual art of memory, a rhetorical achievement crucial to the foundations of Western science (Fabian 1983: 105–41). Memory was an art of reproduction.

There is one other essential quality for the typical animal in its perfect expression: it must be an adult male. Akeley describes hunting many fine females, and he cared for their hides and other details of reconstruction with all his skill. But never was it necessary to take weeks and risk the success of the entire enterprise to find the perfect female. There existed an image of an animal which was somehow the gorilla or the elephant incarnate. That particular tone of perfection could only be heard in the male mode. It was a compound of physical and spiritual quality judged truthfully by the artist-scientist in the fullness of direct experience. Perfection was marked by exact quantitative measurement, but even more by virile vitality known by the hunter-scientist from visual communion. Perfection was known by natural kinship; type, kind, and kin mutually and seminally defined each other.

Akeley hunted for a series or a group, not just for individuals. How did he know when to stop the hunt? Two groups give his criterion of wholeness, the gorilla group collected in 1921 and the original group of four elephants mounted by Akeley himself after the 1910–11 safari. Akeley once shot a gorilla, believing it to be a female, but found it to be a young male. He was disturbed because he wished to kill as few animals as possible and he believed the natural family of the gorilla did not contain more than one male. When he later saw a group made up of several males and females, he stopped his hunt with relief, confident that he could tell the truth from his existing specimens. Also, the photograph of Akeley's original group of four elephants unmistakably shows a perfect family. Nature's biographical unit, the reproductive group had the moral and epistemological status of truth-tellers.

Akeley wanted to be an artist and a scientist. Giving up his early plan of obtaining a degree from Yale Sheffield Scientific School and then of becoming a professional sculptor, he combined art and science in taxidermy. Since that art required that he also be a sculptor, he told some of his stories in bronzes as well as in dioramas. His criteria were similar; Akeley had many stories to tell, but they all expressed the same fundamental vision of a vanishing, threatened scene. In his determination to sculpt "typical" Nandi lion spearmen, Akeley used as models extensive photographs, drawings, and "selected types of American negroes which he was using to make sure of perfect figures" (Johnson 1936: 47). The variety of nature had a purpose—to lead to discovery of the highest type of each species of wildlife, including human beings outside "civilization."

Besides sculpture and taxidermy, Akeley perfected another narrative tool, photography. All of his story-telling instruments relied primarily on vision, but each

caught and held slightly different manifestations of natural history. As a visual art, taxidermy occupied for Akeley a middle ground between sculpture and photography. Both sculpture and photography were subordinate means to accomplishing the final taxidermic scene. But photography also represented the future and sculpture the past. Akeley's practice of photography was suspended between the manual touch of sculpture, which produced knowledge of life in the fraternal discourses of organicist biology and realist art, and the virtual touch of the camera, which has dominated our understanding of nature since World War II. The nineteenth century produced the masterpieces of animal bronzes inhabiting the world's museums. Akeley's early twentieth-century taxidermy, seemingly so solid and material, appears as a brief frozen temporal section in the incarnation of art and science, before the camera technically could pervert his single dream into the polymorphous, absurdly intimate filmic reality we now take for granted. Critics accuse Akeley's taxidermy and the American Museum's expensive policy of building the great display halls in the years before World War II of being armature against the future, of having literally locked in stone one historical moment's way of seeing, while calling this vision the whole (Kennedy 1968: 204). But Akeley was a leader technically and spiritually in the perfection of the camera's eye. Taxidermy was not armed against the filmic future, but froze one frame of a far more intense visual communion to be consummated in virtual images. Akeley helped produce the armature—and armament-that would advance into the future.

Photography: Hunting with the Camera

Guns have metamorphosed into cameras in this earnest comedy, the ecology safari, because nature has ceased to be what it had always been—what people needed protection from. Now nature—tamed, endangered, mortal—needs to be protected from people. When we are afraid, we shoot. But when we are nostalgic, we take pictures. (Sontag 1977: 15)

Akeley and his peers feared the disappearance of their world, of their social world in the new immigrations after 1890 amd the resulting dissolution of the old imagined hygienic, pre-industrial America. Civilization appeared to be a disease in the form of technological progress and the vast accumulation of wealth in the practice of monopoly capitalism by the very wealthy sportsmen who were trustees of the Museum and the backers of Akeley's African Hall. The leaders of the American Museum were afraid for their health; that is, their manhood was endangered. Theodore Roosevelt knew the prophylaxis for this specific historical malaise: the true man is the true sportsman. Any human being, regardless of race, class, and gender, could spiritually participate in the moral status of healthy manhood in democracy, even if only a few (anglo-saxon, male, heterosexual, Protestant, physically robust, and economically comfortable) could express manhood's highest forms. From about 1890 to the 1930s, the Museum was a vast public education and research program for producing experience potent to induce the fertile state of manhood. The Museum, in turn, was the ideological and material product of the sporting life. As Mary Jobe Akeley realized, "[the true sportsman] loves the game as if he were the father of it" (M. J. Akeley 1929b: 116). Akeley believed that the highest expression of sportsmanship was hunting with the camera: "Moreover, according to any true conception of sport—the use of skill, daring, and endurance in overcoming difficulties—camera pointing takes twice the man that gun hunting takes" (Akeley 1923: 155). The first father of the game loves nature with the camera; it takes twice the man, and the children are in his perfect image. The eye is infinitely more potent than the cut. Both put a woman to shame—reproductively.

After the of Akeley's first collecting safari in 1896, cameras were a nearly useless

encumbrance incapable of capturing the goal of the hunt-life. According to Akeley The first notable camera hunters in Africa appeared around 1902, beginning with Edward North Burton. The early books like Burton's were based on still photographs; moving picture wildlife photography, owing much to Akeley's own camera did not achieve anything before the 1920s. On his 1910-11 safari to east Africativith the best available equipment, Akeley tried to film the Nandi lion spearing. His failure due to inadequate cameras, described with great emotional intensity, led him during the next five years to design the Akeley camera, which was used extensively by the Army Signal Corps during World War I. Akeley formed the Akeley Camera Company to develop his invention, which received its civilian christening by filming Man-o-War win the Kentucky Derby in 1920, and his camera's innovative telephoto lens caught the Dempsey-Carpentier heavyweight battle. Akeley's first taste of his own camera in the field was in 1921 in the Kivu forest. Within a few days, Akeley shot his first gorillas with both gun and camera: in these experiences he saw the culmination of his life. Awarded the John Price Wetherhill Medal at the Franklin Institute in 1926 for his invention, Akeley succeeded that year in filming to his satisfaction African lion spearing, on the same safari on which Rochester's George Eastman, of Eastman-Kodak fortunes, was both co-sponsor and hunter-collector.

The ambiguity of the gun and camera runs throughout Akeley's work. He is a transitional figure from the western image of darkest to lightest Africa, from nature worthy of manly fear to nature in need of motherly nurture. The woman/scientist/mother of orphaned apes popularized by the National Geographic Society's magazine and films in the 1970s was still half a century away. With Akeley, manhood tested itself against fear, even as the lust for the image of jungle peace held the finger on the gun long enough to take the picture and even as the intellectual and mythic certainty grew that the savage beast in the jungle was human, in particular, industrial human. The industrialist in the field with Akeley, George Eastman, was an object lesson in the monopoly capitalist's greater fear of decadence than of death. The narrative has a septagenarian Eastman getting a close-up photograph at 20 feet of a charging rhino, directing his white hunter when to shoot the gun, while his personal physician looks on. "With this adventure Mr. Eastman began to enjoy Africa thoroughly..." (M. J. Akeley 1940: 270).

Even at the literal level of physical appearance, "[t]o one familiar with the old types of camera the Akeley resembled a machine gun quite as much as it resembled a camera" (Akeley 1923: 166). Akeley said he set out to design a camera "that you can aim . . . with about the same ease that you can point a pistol" (Akeley 1923: 166). He enjoyed retelling the apocryphal story of seven Germans mistakenly surrendering to one American when they found themselves faced by an Akeley. "The fundamental difference between the Akeley motion-picture camera and the others is a panoramic device which enables one to swing it all about, much as one would swing a swivel gun, following the natural line of vision" (Akeley 1923: 167). Akeley

semi-joked in knowing puns on the penetrating, deadly invasiveness of the camera, naming one of his image machines "The Gorilla." "The Gorilla' had taken 300 feet of film of the animal that had never heretofore been taken alive in its native wilds by any camera. . . . I was satisfied—more satisfied than a man ever should be—but I revelled in the feeling."²¹

The taxidermist, certain of the essential peacefulness of the gorilla, wondered how close he should let a charging male get before neglecting the camera for the gun. "I hope that I shall have the courage to allow an apparently charging gorilla to come within a reasonable distance before shooting. I hesitate to say just what I consider a reasonable distance at the present moment. I shall feel very gratified if I can get a photograph at twenty feet. I should be proud of my nerve if I were able to show a photograph of him at ten feet, but I do not expect to do this unless I am at the moment a victim of suicidal mania" (Akeley 1923: 197). Akeley wrote these words before he had ever seen a wild gorilla. What was the boundary of courage; how much did nature or man need protecting? What if the gorilla never charged, even when provoked? What if the gorilla were a coward (or a female)? Who, precisely, was threatened in the drama of natural history in the early decades of monopoly capitalism's presence in Africa and America?

Aware of a disturbing potential of the camera, Akeley set himself against faking. He stuffed Barnum's Jumbo, but he wanted no part of the great circus magnate's cultivation of the American popular art form, the hoax (Harris 1973). But hoax luxuriated in early wildlife photography (and anthropological photography). In particular, Akeley saw unscrupulous men manipulate nature to tell the story of a fierce and savage Africa that would sell in the motion picture emporia across America. Taxidermy had always threatened to lapse from art into deception, from life to upholstered death as a poor sportsman's trophy. Photography too was full of philistines who could debase the entire undertaking of nature work, the Museum's term for its educational work in the early 1900s. The Museum was for public entertainment (the point that kept its Presbyterian trustees resisting Sunday opening in the 1880s despite that day's fine potential for educating the new Catholic immigrants, who worked a six-day week); but entertainment only had value if it communicated the truth. Therefore, Akeley encouraged an association between the American Museum and the wildlife photographers, Martin and Osa Johnson, who seemed willing and able to produce popular motion pictures telling the story of jungle peace. Johnson claimed in his 1923 prospectus to the American Museum, "The camera cannot be deceived . . . [therefore, it has] enormous scientific value."22

Entertainment was interwoven with science, art, hunting, and education. Barnum's humbug tested the cleverness, the scientific acumen, of the observer in a republic where each citizen could discover the nakedness of the emperor and the sham of his rationality. This democracy of reason was always a bit dangerous. There is a tradition of active participation in the eye of science in America which makes the stories of nature ready to erupt into popular politics. Natural history can be—and has sometimes been—a means for millenial expectation and disorderly action. Akeley himself is an excellent example of a self-made man who made use of the mythic resources of the independent man's honest vision, the appeal to experience the testimony of one's own eyes. He saw the Giant of Karisimbi. The camera, an eminently democratic machine, has been crucial to crafting stories in biology. Its control has eluded the professional and the moralist, the official scientist. But in

ame folioson: A keley hoped he had the man who would tame specular entertain-

on the social uplift promised by science. 2006 Martin Johnson shipped out with Jack London for a two-year south sea The slipp the Snark, was the photographer's Beagle. Its name could hardly be entire chosen for the ship carrying the two adventurers whose books and complemented Tarzan for recording the dilemma of manhood in the early onneth century. Lewis Carroll's The Hunting of the Snark parodically anticipates nevelation of men like Johnson, London, and Akeley:

> In one moment I've seen what has hitherto been Enveloped in absolute mystery, And without extra charge I will give you at large A Lesson in Natural History. (Carroll 1971: 225)

from 1908-13 Johnson ran five motion picture houses in Kansas. He and Osa raveled in the still mysterious, potent places to film "native life": Melanesia, Polynega Malekula, Borneo, Kenya Colony. In 1922 the Johnsons sought Akeley's opinion Timeir new film, Trailing African Wild Animals. Akeley was delighted, and the Museum set up a special corporation to fund the Johnsons on a five-year African film safari. They planned a film on "African Babies." "It will show elephant babies, Mon babies, zebra babies, giraffe babies, and black babies . . . showing the play of fold animals and the maternal care that is so strange and interesting a feature of wildlife."25 African human life had the status of wildlife in the Age of Mammals. That was the logic for "protection"—the ultimate justification for domination. Here was a record of jungle peace.

The Johnsons also planned a big animal feature film. The museum lauded both the commercial and educational values. Osborn enthused, "The double message of such photography is, first, that it brings the aesthetic and ethical influence of nature within the reach of millions of people . . . second, it spreads the idea that our generation has no right to destroy what future generations may enjoy."24 Johnson was confident that their approach of combining truth and beauty without hoax would ultimately be commercially superior, as well as scientifically accurate. "[T]here is no limit to the money it can make. . . . My past training, my knowledge of showmanship, mixed with the scientific knowledge I have absorbed lately, and the wonderful photographic equipment . . . make me certain that this Big Feature is going to be the biggest money maker ever placed on the market, as there is no doubt it will be the last big Africa Feature made, and it will be so spectacular that there will be no danger of another film of like nature competing with it. For these reasons it will produce an income as long as we live."25 Africa had always promised gold.

The "naked eye" science advocated by the American Museum perfectly suited the camera, ultimately so superior to the gun for the possession, production, preservation, consumption, surveillance, appreciation, and control of nature. Akeley's aesthetic ideology of realism was part of his effort to bridge the yawning gaps in the endangered self. To make an exact image is to insure against disappearance, to cannibalize life until it is safely and permanently a specular image, a ghost. The image arrested decay. That is why nature photography is so beautiful and so religious-and such a powerful hint of an apocalyptic future. Akeley's aesthetic combined the instrumental and contemplative into a photographic technology providing a transfusion for a steadily depleted sense of reality. The image and the real define each other, as all of reality in late capitalist culture lusts to become an image for its own security. Reality is assured, insured, by the image, and there is no limit to the amount of money that can be made. The camera is superior to the gun for the control of time; and Akeley's dioramas with their photographic vision, sculptor's touch, and taxidermic solidity were about the end of time (Sontag 1977).

Telling Stories

The synthetic story told so far has had three major and many minor sources. Telling a life synthetically masks the tones emerging from inharmonious versions. The single biography, the achieved unity of African Hall, can be unraveled to tie its threads into an imagined heteroglossic narrative of nature yet to be written. A polyphonic natural history waits for its sustaining social history. To probe more deeply into the tissue of meanings and mediations making the specific structure of experience possible for the viewer of the dioramas of African Hall, I would like to tease apart the sources for a major event in Akeley's life, an elephant mauling in British East Africa in 1910. This event leavens my story of the structure and function of biography in the construction of a twentieth-century primate order, with its multiform hierarchies of race, sex, species, and class. Whose stories appear and disappear in the web of social practices that constitute Teddy Bear Patriarchy? Questions about authorized writing enforced by publishing practices and about labor that never issues in acknowledged authorship (never becomes father of the game) make up my story. 26

Authors and Versions

She didn't write it.

She wrote it but she shouln't have.

She wrote it, but look what she wrote about. (Russ 1983: 76)

In Brightest Africa appears to be written by Carl Akeley. But we learn from Mary Jobe Akeley (1940: 222), a prolific author, that the taxidermist "hated to wield a pen." She elaborates that Doubleday and Page (the men, not the company), were enthralled by Carl's stories told in their homes at dinner and so "determined to extract a book from him." So one evening after dinner Arthur W. Page "stationed a stenographer behind a screen, and without Carl's knowledge, she recorded everything he said while the guests lingered before the fire." Editing of this material is credited to Doubleday and Page, and the author is named as Carl. The stenographer is an unnamed hand. Her notes gave rise to articles in a journal called World's Work, but the publishers wanted a book. Then Akeley read a newspaper account of his Kivu journey that he liked; it had been written by Dorothy S. Greene while she worked for the director of the American Museum. Akeley hired her as his secretary, to record his stories while he talked with explorers and scientists or lectured to raise funds for African Hall. "She unobtrusively jotted down material which could be used in a book" (M.J. Akeley 1940: 223). Who wrote In Brightest Africa? To insist on that question troubles official versions of the relation of mind and body in western authorship.

The physical appearance of the books is itself an eloquent story. The stamp of approval floor men like H. F. Osborn in the dignified prefaces, the presence of handsome pholographs, a publishing house that catered to wealthy hunters: all compose the authority of the books. The frontispieces are like Orthodox icons; the entire story and be read from them. In Lions, Gorillas and their Neighbors, published for young people, the frontispiece shows an elderly Carl Akeley in his studio gazing intently into the eyes of the plaster death mask of the first gorilla he ever saw. Maturity in the encounter with nature is announced. The Wilderness Lives Again, the biography that resurrected Carl through his wife's vicarious authorship, displays in the front a young Carl, arm and hand bandaged heavily, standing outside a tent beside a dead leopard suspended by her hind legs. The caption reads: "Carl Akeley, when still in his twenties, choked this wounded infuriated leopard to death with his naked hands as it attacked him with intent to kill."

Carl Akeley's story of his encounter with the elephant that mauled him is in a chapter titled "Elephant Friends and Foes." Moral lessons pervade the chapter, prominently those of human ignorance of the great animals—partly because hunters are only after ivory and trophies, so that their knowledge is only of tracking and killing, not of the animals' lives—and of Akeley's difference because of his special closeness to nature embodied in the magnificent elephants. Akeley witnessed two elephants help a wounded comrade escape from the scene of slaughter, inspiring one of the taxidermist's bronzes. But, the reader also sees Akeley making a table to seat eight people out of elephant ears from a specimen which nearly killed him and Delia, despite each of them shooting into his head about 13 times. In this chapter, the taxidermist is hunting as an equal with his wife. He does not hide stories which might seem a bit seedy or full of personal bravado; yet his "natural nobility" pervaded all these anecdotes, particularly for an audience of potential donors to African Hall, who might find themselves shooting big game in Africa.

His near fatal encounter with an elephant occurred when Akeley had gone off without Delia to get photographs, taking "four days' rations, gun boys, porters, camera men, and so forth—about fifteen men in all" (Akeley 1923: 45). He was tracking an elephant whose trail was very fresh, when he suddenly became aware that the animal was bearing down on him directly:

I have no knowledge of how the warning came. . . . I only know that as I picked up my gun and wheeled about I tried to shove the safety catch forward. It refused to budge. . . . My next mental record is of a tusk right at my chest. I grabbed it with my left hand, the other one with my right hand, and swinging in between them went to the ground on my back. This swinging in between the tusks was purely automatic. It was the result of many a time on the trails imagining myself caught by an elephant's rush and planning what to do, and a very profitable planning too: for I am convinced that if a man imagines such a crisis and plans what he would do, he will, when the occasion occurs, automatically do what he planned. . . . He drove his tusks into the ground on either side of me. (Akeley 1923: 48-49)

Akeley tells that he lay unconscious and untouched for hours because his men felt he was dead, and they came from groups which refused to touch a dead man. When he came to, he shouted and got attention. He relates that word had been sent to Mrs. Akeley at base camp, who valiantly mounted a rescue party in the middle

of the night against the wishes of her guides (because of the dangers of night travel through the bush), whom she pursued into their huts to force their cooperation. Sending word to the nearest government post to dispatch a doctor, she arrived at the scene of the injury by dawn. Akeley attributed his recovery to Delia's fast action, but more to the subsequent speedy arrival of a neophyte Scottish doctor, who sped through the jungle to help the injured man partly out of his ignorance of the foolishness of hurrying to help anyone mauled by an elephant—such men simply didn't survive to pay for one's haste. The more seasoned chief medical officer arrived considerably later.

The remainder of the chapter recounts Akeley's chat with other old hands in Africa about their experiences surviving elephant attacks. Like his thoughts as he swung between the giant tusks, the tone is reasoned, scientific, focused on the behavior and character of those interesting aspects of elephant behavior. The ubiquitous moral concludes the chapter:

But although the elephant is a terrible fighter in his own defense when attacked by man, that is not his chief characteristic. The things that stick in my mind are his sagacity, his versatility, and a certain comradeship which I have never noticed to the same degree in other animals.... I like to think back to the day I saw the group of baby elephants playing with a great ball of baked dirt.... They have no enemy but man and are at peace amongst themselves. It is my friend the elephant that I hope to perpetuate in the central group in Roosevelt African Hall.... In this, which we hope will be an everlasting monument to the Africa that was, the Africa that is fast disappearing, I hope to place the elephant on a pedestal in the centre of the hall—the rightful place for the first among them. (Akeley 1923: 54-5)

Akeley sees himself as an advocate for "nature" in which "man" is the enemy, the intruder, the dealer of death. His own exploits in the hunt stand in ironic juxtaposition only if the reader evades their true meaning—the tales of a pure man whose danger in pursuit of a noble cause brings him into communion with nature through the beasts he kills. This nature is a worthy brother of man, a worthy foil for his manhood. Akeley's elephant is profoundly male, singular, and representative of the possibility of nobility. The mauling was an exciting tale, with parts for many actors, including Delia, but the brush with death and the details of rescue are told with the cool humor of a man ready for his end dealt by such a noble friend and brother, his best enemy, the object of his scientific curiosity. The putative behavior of the "boys" underlines the confrontation between white manhood and the noble beast. "I never got much information out of the boys as to what did happen, for they were not proud of their part in the adventure. . . . It is reasonable to assume that they had scattered through [the area which the elephant thoroughly trampled] like a covey of quail . . ." (1923: 49). Casual and institutional racism heightens the life story of the single adult man. The action in Akeley's stories focuses on the center of the stage, on the meeting of the singular man and animal. The entourage is inaudible, invisible, except for comic relief and anecdotes about native life. In Akeley's rendering, empowered by class and race, white woman stands without much comment in a similar moral position as white man-a hunter, an adult.

Mary Jobe Akeley published her biography of her husband, The Wilderness Lives Again, in 1940, four years after the Akeley African Hall opened to the public. Her

promote conservation and fulfill her life's purpose—accomplishing and site work. She presents herself as the inspired scribe for her husband's considered vicarious authorship and through African Hall and the Parc on the wilderness, but Akeley himself, whose meaning was the wilderness of had not always lived for a husband. An explorer since 1913, she had

of clinic not always lived for a husband." An explorer since 1913, she had complete entexpeditions to explore and map British Columbian wilderness; and the containing overnment named a peak Mt. Jobe. She recounts the scene at Carl's deads therefore accepted his commission for her, that she would live thereafter to high any work. The entire book is suffused with her joy in this task. Her self-constructions the other is breathtaking in its ecstasy. The story of the elephant making indergoes interesting emendations to facilitate her accomplishment. One must be defined by the story of the elephant reaches a definition of the story of the elephant with a solution and the story of the elephant that it is not the story of the elephant of the text. At no point does the wife give a source for his field diaries and public teors are quoted at great length with no typographical differentiation from the story of the text. At no point does the wife give a source for the husband's words; they may be from conversation, lectures, anywhere. It does not matter, because the two are one flesh. The stories of Carl and Mary Jobe blend imperceptibly—until the reader starts comparing other versions of the "same" incidents, even the ones written apparently in the direct words of the true, if absent, author-husband.

The key emendation is an absence; the entire biography of Carl Akeley by Mary Jobe Akeley does not mention the name or presence of Delia. Her role in the rescue is taken by the Kikuyu man Wimbia Gikungu, called "Bill," Akeley's gun bearer and companion on several safaris. Bill roused the recalcitrant guides and notified the government post, thus bringing on the Scotsman posthaste (M. J. Akeley, 1940: Chpt. IX). The long quotation from Carl in which the whole story is told simply lacks mention of his previous wife.

Mary Jobe tells a sequel to the mauling not in Akeley's published stories, and apparently taken from his field diaries or lectures. Because it is not uncommon for a man to lose his nerve after an elephant mauling and decline to hunt elephants again, it was necessary for Akeley to face elephants as soon as possible. Again, the first thing to notice is an absence; there is no question that such courage should be regained. But the explicit story does not ennoble Akeley. He tracked an elephant before he was really healthy, needing his "boys" to carry a chair on the trail for him to sit on as he tired; he wounded the elephant with unsportsmanlike hasty shots; and it was not found before dying. If Akeley's nobility is saved in this story, it is by his humility: "The whole thing had been stupid and unsportsmanlike" (M. J. Akeley 1940: 126).

Mary Jobe Akeley pictures herself as Carl's companion and soul mate, but not really as his co-adventurer and buddy hunter—with one exception. Mary Jobe fired two shots in Africa, and killed a magnificent male lion: "An hour later we came upon a fine old lion, a splendid beast, Carl said, and good enough for me to shoot. And so I shot. . . . Carl considered it a valuable specimen; but I was chiefly concerned that I fulfilled Carl's expectations and had killed the lion cleanly and without assistance" (M. J. Akerley 1940: 303). Mary Jobe's authority as a biographer does not depend on her being a hunter, but her status was enhanced by this most desirable transforming experience.

Delia Akeley pictures herself as a joyous and unrepentant hunter; but, by the publication of Jungle Portraits in 1930, her husband has some warts. Delia does not

bear the authorial moral status of the artist-scientist, Carl Akeley, or his socially sure second wife. Delia's tales clarify the kind of biography that was to be suppressed in African Hall. In Delia's story of the rescue, "Bill" also appears, and he behaves well. But her own heroism in confronting the superstitions of the "boys" and in saving her endangered husband is the central tale: "Examining and cleansing Mr. Akeley's wounds were my first consideration. . . . The fact that his wounds were cared for so promptly prevented infection, and without doubt saved his life" (D. Akeley 1930: 249).

Delia produced a biographical effect at odds with the official histories; she showed the messiness behind the "unified truth" of natural history museums. Delia dwelt on the sickness and injury of early collectors and explorers; she remarked pointedly on insects, weariness, and failure in the past and contrasted that with the experience provided the current (1930) traveler, the tourist, and museum visitor. She foregrounded the devoted and unrewarded wife who kept camp in the jungle and house at home. The wife-manager of Carl's safaris, aware of the material mediations in the quest for manhood and natural truth, showed pique at all the attention given her scientist-husband: "The thrilling story of the accident and his miraculous escape from a frightful death has been told many times by himself from the lecture platform. But a personal account of my equally thrilling night journey to his rescue through one of the densest, elephant-infested forests on the African continent is not nearly so well known" (D. Akeley 1930: 233). This is not the wife who devotes herself to her husband's authorship of wilderness. Indeed, she insisted on "darkest-Africa" throughout her book.

Delia foregrounded her glory at the expense of her husband's official nobility. Delia's reader discovers Carl frequently sick in his tent, an invalid dangerously close to death while the courageous wife hunts not only for food for the entire camp, but also for scientific specimens so that he may hasten out of this dangerous continent before it claims him. In the elephant hunt following the mauling, Carl was still searching to restore his endangered "morale." But this time his wife was his companion in what is portrayed as a dangerous hunt terminating in a thrilling kill marked by a dangerous charge. Delia's story demurred on who fired the fatal shot, but "fatigue and a desire to be sure of his shot made Mr. Akeley slow in getting his gun in position" (D. Akeley 1930: 93).

Delia published an extraordinary photograph of a dashing Carl Akeley smoking a pipe and lounging on the body of a large fallen elephant; her caption reads, "Carl Akeley and the first elephant he shot after settling the question of his morale." A reader will not find that particular photograph of Akeley in any other publication than Delia's. Further, my hunt in the Museum's archive for the image of Akeley lounging astride his kill caught Delia in a lie (hoax?) about that elephant. But the lie reveals another truth. The accompanying photos in the archive suggest a version of reality, a biography of Africa, which the Museum and its official representatives did not want displayed in their Halls or educational publications.

The images from the photo archive upstairs haunt the mind's eye as the viewer stands before the elephant group in African Hall. First, the particular elephant with the lounging Carl could not have been killed on the occasion Delia described. The cast of characters evidences a different year; a picture clearly taken on the same occasion shows the white hunter, the Scotsman Richard John Cunninghame, hired by Akeley in 1909 to teach him how to hunt elephants, lounging with Delia on the

in Museum archive labels the photo "Mrs. Akeley's first elephant." It has to hop order the separate photos in the folder into a narrative series. The next has shows the separated and still slightly bloody tusks of the elephant helpful doing arch over a pleased, informal Delia. She is standing confidently underly the feach arm reaching out to grasp a curve of the elephantine structure. Business a support for the ivory is elsewhere. Cut off at the edge of the picture are four plack arms; the hands come from the framing peripheral space to encircle the bask of ching over the triumphant white woman. The museum archive labels this place of the picture and the feather of the feather of the feather of the deceased elephant of the stands with her head bowed under the ivory arch, now supported by a single solemn African man. The Museum's spare comment reads, "The Christening Hagite 3.2]

Hereis in image of a sacrament, a mark on the soul signing a spiritual transformation effected by the act of first killing. It is a sacred moment in the life of the hunter, a rebirth in the blood of the sacrifice, of conquered nature. This elephant stands a fixed withess in Akeley African Hall to its dismembered double in the photograph, whose bloody member signed the intersection of race, gender, and nature on the soul of the western hunter. In this garden, the camera captured a retelling of a Christian story of origins, a secularized Christian sacrament in a baptism of blood



Figure 3.2 The Christening. Negative no. 211526. Published with permission of the Department of Library Services, American Museum of Natural History.

from the victim whose death brought spiritual adulthood, i.e., the status of hunter, the status of the fully human being who is reborn in risking life, in killing. Versions of this story proliferate in the history of American approaches to the sciences of life, especially primate life. With Delia, the story is near parody; with Carl it is near epiphany. His was authorized to achieve a fusion of science and art. Delia, the more prolific author, who neither had nor was a ghostwriter, was erased—by divorce and by duplicity.

Safari: A Life of Africa

Now with few exceptions our Kivu savages, lower in the scale of intelligence than any others I had seen in Equatorial Africa, proved kindly men... How deeply their sympathy affected mel As I think of them, I am reminded of the only playmate and companion of my early childhood, a collie dog... (M. J. Akeley 1929b: 200)

The great halls of the American Museum of Natural History would not exist without the labor of Africans (or South Americans or the Irish and Negroes in North America). The Akeleys would be the first to acknowledge this fact; but they would claim the principle of organization came from the white safari managers, the scientist-collector and his camp-managing wife, the elements of mind overseeing the principle of execution. From the safari of 1895, dependent upon foot travel and the strong backs of "natives," to the motor safaris of the 1920s, the everyday survival of Euro-Americans in the field depended upon the knowledge, good sense, hard work, and enforced subordination of people the white folk insisted on seeing as perpetual children or as wildlife. If a black person accomplished some exceptional feat of intelligence or daring, the explanation was that he (or she?) was inspired, literally moved, by the spirit of the master. As Mary Jobe (1929b: 199) put it in her unself-conscious colonial voice, "It was as if the spirit of his master had descended upon him, activating him to transcendent effort." This explanation was all the more powerful if the body of the master was physically far removed, by death or trans-Atlantic residence. Aristotle was as present in the safari as he was in the taxidermic studios in New York or in the physiological bodies of organisms. Labor was not authorized as action, as mind, or as form. Labor was the marked body.

Carl and Mary Jobe Akeley's books elucidate safari organization over a thirty-year span. The photographs of solemn African people in a semi-circle around the core of white personnel, with the cars, cameras, and abundant baggage in the background, are eloquent about race, gender, and colonialism. The chapters discuss the problems of cooks, the tasks of a headman, the profusion of languages which no white person on the journey spoke, numbers of porters (about thirty for most of the 1926 trip, many more in 1895) and problems in keeping them, the contradictory cooperation of local African leaders (often called "sultans"), the difficulty of providing white people coffee and brandy in an "unspoiled" wilderness, the hierarchy of pay scales and food rations for safari personnel, the behavior of gun bearers, and the punishment for perceived misdeeds. The chapters portray a social organism ordered by the principles of organic form: hierarchical division of labor called cooperation and coordination. The safari was an icon of the whole enterprise in its logic of mind and body, in its scientific marking of the body for functional efficiency

(Sohn-Rethel 1978; Young 1977b; Rose 1983). In western inscriptions of race, Africans were written into the script of the story of life—and written out of authorship.

Few of the black personnel appear with individual biographies in the safari literature, but there are exceptions, object lessons or type life histories. Africans were imagined as either "spoiled" or "unspoiled," like the nature they signified. Spoiled nature could not relieve decadence, the malaise of the imperialist and city dweller, but only presented evidence of decay's contagion, the germ of civilization, the infection which was obliterating the Age of Mammals. And with the end of that time came the end of the essence of manhood, hunting. But unspoiled Africans, like the Kivu forest itself, were solid evidence of the resources for restoring manhood in the healthy activity of sportsmanlike hunting. Hinting at the complexity of the relation of master and servant in the pursuit of science on the safari, the life story is told from the point of view of the white person. Wimbia Gikungu, the Kikuyu known as Bill who joined Carl Akeley in British East Africa in 1905 at thirteen years of age, did not write—or ghost write—my sources. He was not the author of his body, but he was the Akeleys' favorite "native."

Bill began as an assistant to Delia Akeley's "tent boy," but is portrayed as rapidly learning everything there was to know about the safari through his unflagging industry and desire to please. He was said to have extraordinary intelligence and spirit, but suffered chronic difficulty with authority and from inability to save his earnings. "He has an independence that frequently gets him into trouble. He does not like to take orders from any one of his own color" (Akeley 1923: 143). He served with Akeley safaris in 1905, 1909–11, and 1926, increasing in authority and power over the years until there was no African whom Carl Akeley respected more for his trail knowledge and judgment. Bill got into trouble serving on the Roosevelt safari, was dismissed and blacklisted. Nonetheless, Akeley immediately rehired him, assuming he had had some largely innocent (i.e., not directed against a white person) eruption of his distaste for authority (Akeley 1923: 144).

Akeley describes three occasions on which he "punished" Gikungu; these episodes are icons of Akeley's paternal ideology. Once Bill refused to give the keys for Carl's trunk to other white people when they asked, "saying that he must have an order from his own Bwana. It was cheek, and he had to be punished; the punishment was not severe, but coming from me it went hard with him and I had to give him a fatherly talk to prevent his running away" (Akeley 1923: 134). The "father to the game" claimed the highest game of all in the history of colonialism-the submission of man. Later, the Kikuyu shot at an elephant he believed was charging an unsuspecting Akeley. Akeley had seen the animal, but did not know his "gun boy" did not know. Akeley slapped Gikungu "because he had broken one of the first rules of the game, which is that a black boy must never shoot without orders, unless his master is down and at the mercy of a beast." Realizing his mistake, "my apologies were prompt and as humble as the dignity of a white man would permit" (M. J. Akeley 1940: 132). The African could not be permitted to hunt independently with a gun in the presence of a white man. The entire logic of restoring threatened white manhood depended on that rule. Hunting was magic; Bill's well-meaning (and well-placed) shot was pollution, a usurpation of maturity. Finally, Akeley had Gikungu put in jail during the 1909-11 safari when "Bill" actively declined to

submit when Carl "found it necessary to take him in hand for mild punishment" for another refusal of a white man's orders about baggage (Akeley 1923: 144). Gikungu spend two weeks in jail; the white man's paternal solicitude could be

quite a problem.

Akeley relied on Gikungu's abilities and knowledge. Always, his performance was attributed to his loyalty for the master. Collecting the ivory of a wounded elephant, organizing the rescue after the elephant mauling, assisting Mary Jobe Akeley after Carl's death—these deeds were the manifestations of subordinate love. There is no hint that Gikungu might have had other motives—perhaps a non-subservient pity for a white widow in the rain forest, pleasure in his superb skills, complex political dealings with other African groups, or even a superior hatred for his masters. Attributing intentions to "Bill" is without shadow of doubt; the African played his role in the safari script as the never quite tame, permanently good boy. Bill was believed to be visible; other Africans largely remained invisible. The willed blindness of the white lover of nature remained characteristic of the scientists who went to the Garden to study primates, to study origins, until cracks began to show in this consciousness around 1970.

Institution

Speak to the Earth and It Shall Teach Thee. (Job 12:8)²⁸ Every specimen is a permanent fact.²⁹

From 1890 to 1930 the "Nature Movement" was at its height in the United States. Conventional western ambivalence about "civilization" was never higher than during the early decades of monopoly capital formation (Marx 1964; Nash 1982). The woes of "civilization" were often blamed on technology—fantasized as "the Machine." Nature is such a potent symbol of innocence partly because "she" is imagined to be without technology. Man is not in nature partly because he is not seen, is not the spectacle. A constitutive meaning of masculine gender for us is to be the unseen, the eye (I), the author, to be Linnaeus who fathers the primate order. That is part of the structure of experience in the Museum, one of the reasons one has, willy nilly, the moral status of a young boy undergoing initiation through visual experience. The Museum is a visual technology. It works through desire for communion, not separation, and one of its products is gender. Who needs infancy in the nuclear family when we have rebirth in the ritual spaces of Teddy Bear Patriarchy?

Social relations of domination are built into the hardware and logics of technology, producing the illusion of technological determinism. Nature is, in "fact," constructed as a technology through social praxis. And dioramas are meaning-machines. Machines are maps of power, arrested moments of social relations that in turn threaten to govern the living. The owners of the great machines of monopoly capital were, with excellent reason, at the forefront of nature work—because it was one of the means of production of race, gender, and class. For them, "naked eye science" could give direct vision of social peace and progress despite the appearances of class war and decadence. They required a science "instaurating" jungle peace; and so they bought it.

This scientific discourse on origins was not cheap; and the servants of science, human and animal, were not always docile. But the relations of knowledge and

power at the American Museum of Natural History should not be narrated as a tale of evil capitalists in the sky conspiring to obscure the truth. Quite the opposite, the tale mustbe of committed Progressives struggling to dispel darkness through research education, and reform. The capitalists were not in the sky; they were in the field armed with the Gospel of Wealth. 30 They were also often armed with an elephant guinand an Akeley camera. Sciences are woven of social relations throughout their issues. The concept of social relations must include the entire complex of interactions, among people; objects, including books, buildings, and rocks; and animals.11

One band in the spectrum of social relations—the philanthropic activities of men in the American Museum of Natural History, which fostered exhibition (including public education and scientific collecting), conservation, and eugenics—is the optic tectum of naked eye science, i.e., the neural organs of integration and interpretation. After the immediacy of experience and the mediations of biography and story telling, we now must attend to the synthetic organs of social construction as they came together in an institution,32

Decadence was the threat against which exhibition, conservation, and eugenics were all directed as prophylaxis for an endangered body politic. The Museum was a medical technology, a hygienic intervention, and the pathology was a potentially fatal organic sickness of the individual and collective body. Decadence was a venereal disease proper to the organs of social and personal reproduction: sex, race, and class. From the point of view of Teddy Bear Patriarchy, race suicide was a clinical manifestation whose mechanism was the differential reproductive rates of anglosaxon vs. "non-white" immigrant women. Class war, a pathological antagonism of functionally related groups in society, seemed imminent. And middle class white women undertaking higher education might imperil their health and reproductive function. Were they unsexed by diverting the limited store of organic energy to their heads at crucial organic moments? Lung disease (remember Teddy Roosevelt's asthma), sexual disease (what was not a sexual disease, when leprosy, masturbation, and Charlotte Perkins Gilman's need to write all qualified?), and social disease (like strikes and feminism) all disclosed ontologically and epistemologically similar disorders of the relations of nature and culture. Decadence threatened in two interconnected ways, both related to energy-limited, productive systems-one artificial, one organic. The machine threatened to consume and exhaust man. And the sexual economy of man seemed vulnerable both to exhaustion and to submergence in unruly and primitive excess. The trustees and officers of the Museum were charged with the task of promoting public health in these circumstances.

Three public activities of the Museum were dedicated to preserving a threatened manhood: exhibition, eugenics, and conservation. Exhibition was a practice to produce permanence, to arrest decay. Eugenics was a movement to preserve hereditary stock, to assure racial purity, to prevent race suicide. Conservation was a policy to preserve resources, not only for industry, but also for moral formation, for the achievement of manhood. All three activities were prescriptions against decadence, the dread disease of imperialist, capitalist, white culture. Forms of education and science, they were also very close to religious and medical practice. These three activities were about the transcendence of death, personal and collective. They attempted to insure preservation without fixation and paralysis, in the face of

extraordinary change in the relations of sex, race, and class.

Exhibition

The American Museum of Natural History was (and is) a "private" institution, as private could only be defined in the United States. In Europe the natural history museums were organs of the state, intimately connected to the fates of national politics (Holton and Blanpied 1976). The development of U.S. natural history museums was tied to the origins of the great class of capitalists after the Civil War (Kennedy 1968). The social fate of that class was also the fate of the Museum; its rearrangements and weaknesses in the 1930s were reproduced in crises in the Museum, ideologically and organizationally. The American Museum, relatively unbuffered from intimate reliance on the personal beneficence of a few wealthy men, is a peephole for spying on the wealthy in their ideal incarnation. They made dioramas of themselves.

The great scientific collecting expeditions from the American Museum began in 1888 and stretched to the 1930s. By 1910, they had gained the Museum scientific prestige in selected fields, especially paleontology, ornithology, and mammalogy. The Museum in 1910 boasted nine scientific departments and twenty-five scientists. Anthropology also benefited, and the largest collecting expedition ever mounted by the Museum was the 1890s Jesup North Pacific Expedition so important to Franz Boas's career (Kennedy 1968: 141ff). The sponsors of the Museum liked a science that stored facts safely; and they liked the public popularity of the new exhibitions. Many people among the white, protestant, middle and upper classes in the United States were committed to nature, camping, and the outdoor life; Teddy Roosevelt embodied their politics and their ethos. Theodore Roosevelt's father was one of the incorporators of the Museum in 1868. His son, Kermit, was a trustee during the building of African Hall. Others in that cohort of trustees were J. P. Morgan, William K. Vanderbilt, Henry W. Sage, H. F. Osborn, Daniel Pomeroy, E. Roland Harriman, Childs Frick, John D. Rockefeller III, and Madison Grant. Patrons of science, these are leaders of movements for eugenics, conservation, and the rational management of capitalist society.

The first hall of dioramas was Frank Chapman's Hall of North American Birds, opened in 1903. Akeley, hired to prepare African game, especially elephants, conceived the idea for African Hall on his first collecting trip for the American Museum. Osborn hoped for—and got—a North American and Asian Mammal Hall after the African one. The younger trustees in the 1920s formed an African Big Game Club that invited wealthy sportsmen to join in contributing specimens and money to African Hall. The 1920s were prosperous for these men, and they gave generously. There were over one hundred expeditions in the field for the American Museum in the 1920s discovering facts (Kennedy 1968: 192).

There was also a significant expansion of the museum's educational endeavors. Over a million children per year in New York were looking at the Museum's "nature cabinets" and food exhibits circulated through the city public health department. Radio talks, magazine articles, and books covered the Museum's popular activities, which appeared in many ways to be a science for the people, like that of the National Geographic, which taught republican Americans their responsibilities in empire after 1888. Both Natural History, the Museum's publication, and National Geographic relied heavily on photographs. There was a big building program from 1909 to 1929; and the Annual Report of the Museum for 1921 quoted the estimate by its director that

2 1/2 million people were reached by the Museum and its education extension

program.

Osborn summarized the fond hopes of educators like himself in his claim that children passing through the Museum's halls "become more reverent, more truthful, and more interested in the simple and natural laws of their being and better citizens of the future through each visit." He maintained that the book of nature, written only in facts, was proof against the failing of other books: "The French and Russian anarchies were based in books and in oratory in defiance of every law of nature."33 Going beyond pious hopes, Osborn had the power to construct a Hall of the Age of Man to make the moral lessons of racial hierarchy and progress explicit, lest they be missed in gazing at elephants. He countered those who criticized the halls and educational work for requiring too much time and money better spent on science itself. "The exhibits in these Halls have been criticized only by those who speak without knowledge. They all tend to demonstrate the slow upward ascent and the struggle of man from the lower to the higher stages, physically, morally, intellectually, and spiritually. Reverently and carefully examined, they put man upwards towards a higher and better future and away from the purely animal stage of life." This is the Gospel of Wealth, reverently examined.

Prophylaxis

Eugenics and conservation were closely linked in philosophy and in personnel at the Museum, and they tied in closely with exhibition and research. For example, the white-supremacist author of The Passing of the Great Race, Madison Grant, was a successful corporation lawyer, a trustee of the American Museum, an organizer of support for the North American Hall, a co-founder of the California Save-the-Redwoods League, activist for making Mt. McKinley and adjacent lands a national park, and the powerful secretary of the New York Zoological Society. His preservation of nature and germ plasm all seemed the same sort of work. Grant was not a quack or an extremist. He represented a band of Progressive opinion terrified of the consequences of unregulated monopoly capitalism, including failure to regulate the importation of non-white (which included Jewish and southern European) working classes, who invariably had more prolific women than the "old American stock." Powerful men in the American scientific establishment were involved in establishing Parc Albert in the Congo, a significant venture in international scientific cooperation: John C. Merriam of the Carnegie Institution of Washington, George Vincent of the Rockefeller Foundation, Osborn at the American Museum. The first significant user of the sanctuary would be sent by the "father" of primatology in America. Robert Yerkes, for a study of the psychobiology of wild gorillas. Yerkes was a leader in the movements for social hygiene, the category in which eugenics and conservation also fit. It was all in the service of science.

The Second International Congress of Eugenics was held at the American Museum of Natural History in 1921 while Akeley was in the field collecting gorillas and initiating plans for Parc Albert. Osborn, an ardent eugenicist, believed that it was "[p]erhaps the most important scientific meeting ever held in the Museum." Leading U.S. universities and state institutions sent representatives, and there were many eminent foreign delegates. The collected proceedings were titled "Eugenics in Family, Race, and State." U.S. lawmakers were one intended audience. "The

section of the exhibit bearing on immigration was then sent to Washington by the Committee on Immigration of the Congress, members of which made several visits to the Museum to study the exhibit. The press was at first inclined to treat the work of the Congress [of Eugenics] lightly . . . but the influence of the Congress grew and found its way into news and editorial columns of the entire press of the United States."55 In 1923 the United States Congress passed immigration restriction laws,

to protect the Race, the only race needing a capital letter.

The 1930s were a hiatus for the Museum. The Depression led to reduced contributions, and basic ideologies and politics shifted. The changes were not abrupt; but even the racial doctrines so openly championed by the Museum were publicly criticized in the 1940s, though not until then. Conservation was pursued with different political and spiritual justifications. A different biology was being born, more in the hands of the Rockefeller Foundation and in a different social womb. The issue would be molecular biology and other forms of post-organismic cyborg biology. The threat of decadence gave way to the catastrophes of the obsolescence of man (and of all organic nature) and the disease of stress, realities announced vigorously after World War II. Different forms of capitalist patriarchy and racism would emerge, embodied in a retooled nature. Decadence is a disease of organisms; obsolescence and stress are conditions of technological systems. Hygiene would give way to systems engineering as the basis of medical, religious, political, and scientific story-telling practices.

The early leaders of the American Museum of Natural History would insist that they were trying to know and to save nature, reality. And the real was one. The explicit ontology was holism, organicism. The aesthetic appropriate to exhibition, conservation, and eugenics from 1890 to 1930 was realism. But in the 1920s the surrealists knew that behind the day lay the night of sexual terror, disembodiment, failure of order; in short, castration and impotence of the seminal body which had spoken all the important words for centuries, the great white father, the white hunter in the heart of Africa. The strongest evidence in this chapter for the correctness of their judgment has been a literal reading of the realist, organicist artifacts and practices of the American Museum of Natual History. Their practice and mine

have been literal, dead literal.

RM, Yerkes Papers (RMY), folder 194:n.d., about 1924.

Rothmann (1912).

Derscheid (1927), M.J. Akeley (1929a).

gohu (1923, 1935); Hahn (1988: 173-78).

Corner (1958); Aberle and Corner (1953).

van Wagenen and Aberle (1931), van Wagenen (1972).

Ruch (1941), Schultz (1971).

Hamilton (1914); Kempf (1917). G.S. Miller (1931), a mammalogist at the U.S. National Museum, Zuckerman (1932); Lancaster and Lee (1965). Hamilton (1997), hearing the control of the new sciences of endocrinology and behavior, in

producing theories on the origin of rape, prostitution, and marriage. Zuckerman (1932); Hediger (1950); Benchley (1942); Marais (1926, 1939, 1969).

Teddy Bear Patriarchy

- H.F. Osborn (1908, in Kennedy 1968: 347).
- A plaque at the Deauvereaux or Hotel Colorado in Glenwood Springs inscribes one version of the 2 Edgar Rice Burroughs, in Porges (1975: 129). origin of the Teddy Bear, emblem of Theodore Roosevelt: T.R. returned empty-handed from a hunting trip to the hotel, and so a hotel maid created a little stuffed bear and gave it to him. Word spread, and the Bear was soon manufactured in Germany. It is a pleasure to compose a chapter in
- 4 Believing "man" arose in Asia, H. F. Osborn presided over Museum expeditions into the Gobi desert in the 1920s in an attempt to prove this position. However, Africa still had special meaning as the core of primitive nature, and so as origin in the sense of potential restoration, a reservoir of original conditions where "true primitives" survived. Africa was not established as the scene of the original entergence of our species until well after the 1930s. Pietz (1983) theorizes Africa as the locus for
 - 5 Feminist theory emphasizes the body as generative political construction (Hartsock 1989a; Moraga 1983: de Lauretis 1984, 1987; Martin 1987; Moraga and Anzaldua 1981; Hartouni 1987; Spillers 1988). See also Social Research, Winter 1974, essays from the New School for Social Research,
 - 6 Visual communion, a form of erotic fusion in themes of heroic action, especially death, infuses modern scientific ideologies. Its role in masculinist epistemology in science, with its politics of rebirth, is fundamental. Feminist theory so far has paid more attention to gendered subject/object splitting and not enough to love in specular domination's construction of nature and her sisters (Merchant 1980; Keller 1985; Keller and Grontkowski 1983; Sofoulis 1988).
 - 7 William Pietz's 1983 UCSC slide lecture on the Chicago Field Museum analyzed museums as scenes
 - 8 See also McCullough (1981); Cutright (1956). On travel and the modern Western self, especially
 - the penetration of Brazil, see Defert (1982). Travel as science and as heroic quest interdigitate. Women had all the frightening babies, a detail basic to their immigrant life in a racist society (Gordon 1976; Reed 1978; McCann 1987). Roosevelt's 1905 speech popularized the term "race suicide."
 - 10 Akeley to Osborn, 29 March 1911, in Kennedy (1968: 186).
 - 11 (In principles of composition: Clark (1936); The Mentor, January 1926; Natural History, January 1936. Lowe (1982) illuminates the production of the transcendental subject from the structured relations of human eyelsubject/technical apparatus.

 - 12 For a genealogy of darkest Africa, see Brantlinger (1985). 13 Mulvina Hoffman's bronzes of African men and women in this hall and her heads of Africans at

- the entrance to the hall testify to a crafted human beauty, not a story of natural primitives. On Osborn's failed effort to enlist Hoffman in his projects, see Porter (n.d.) and Taylor (1979).
- 14 James Clifford's sharp eye supplied this perception. See Landau (1981, 1984) on evolutionary texts as narrative.
- 15 Akeley (1923: 211). The jealous mistress trope is a ubiquitous element of the heterosexist gender anxieties in male scientists' writing about their endeavors (Keller 1985).
- 16 Nesbit (1926); Guggisberg (1977).
- 17 Akeley (1923: 226). Bradley (1922) wrote the white woman's account of this trip. The white child, daughter of Mary Hastings and Herbert Bradley, became James Tiptree, Jr., the science fiction writer. Introducing Warm Worlds and Otherwise (Tiptree 1975), Robert Silverberg used Tiptree, whom he later learned was Dr. Alice B. Sheldon, as an example of fine masculine writing that must have been produced by a "real" man. Sheldon earned her doctorate in experimental psychology at age 52 and then began a career as a science fiction writer. Silverberg compared Tiptree to Hemingway-citing "that prevailing masculinity about both of them" (Silverberg, in Tiptree 1975; xv). Tiptree's fiction drew deeply from her travels with her naturalist parents to Africa and Indonesia. Writing as Racoona Sheldon when she wished a female-identified persona, Tiptree kept her "real" gender identity obscure until 1976, near the time of publication of her first novel, Up the Walls of the World (1978), which explores an alien species in which males mother the young. Tiptree's fiction and her publishing practices both interrogate gender. A man and a mother, a scientist and a writer of science fiction, a woman and a masculine author, Tiptree is an oxymoronic figure reconstructing social subjectivities out of a childhood colonial past and into a post-colonial world of other possibilities. In ill health, Tiptree committed suicide with her aged husband in 1987 in their Virginia home.
 - 18 Reserving it for internal use only, the Museum refused permission to publish this photograph. Is it still so sensitive after 68 years?
 - 19 Frank Chapman of the Department of Mammalogy and Ornithology was working on North American bird habitat groups, installed for the public in a large hall in 1903. In the 1880s, British Museum workers innovated methods for mounting birds, including making extremely lifelike vegetation. The American Museum founded its own department of taxidermy in 1885 and hired two London taxidermists, the brother and sister Henry Minturn and Mrs. E. S. Mogridge, to teach how to mount the groups. Joel Asaph Abel, Head of Mammalogy and Ornithology, hired Frank Chapman in 1887. Chapman, a major figure in the history of American ornithology, influenced the start of field primatology in the 1930s. American Museum bird groups from about 1886 were very popular. "Wealthy sportsmen, in particular, began to give to the museum." This turning point in fortunes was critical to the U.S. conservation movement. Department of Mammalogy and Ornithology scientists significantly enhanced the scientific reputation of the American Museum in the late 1800s (Kennedy 1968: 97-104; Chapman 1929, 1933; Chapman and Palmer 1933; pamphlet of Chicago Field Columbia Museum, 1902, "The Four Seasons"; "The Work of Carl E. Akeley in the Field Museum of Natural History," Chicago: Field Museum, 1927).
 - 20 M. J. Akeley (1929b: 127-30, 1940: 115).
 - 21 Akeley (1923: 223-4). Akeley recognized the utility of his camera's telephoto feature to anthropologists for making "motion pictures of natives of uncivilized countries without their knowledge"
 - 22 October 1923, prospectus, AMNH; Johnson (1936); M. J. Akeley (1929b: 129); July 26, 1923, Akeley memorandum on Martin Johnson Film Expedition, microfilm 1114a and 1114b. The Johnsons' films were Simbo, made on the Eastman-Pomeroy expedition, and Trailing African Wild Animals. Connibal of the South Seas was earlier. See Osa Johnson's (1940) thriller about their lives.
 - 23 October 1923, prospectus to the AMNH, microfilm 1114a.
 - 24 October 1923, Osborn endorsement, AMNH microfilm 1114a.
 - 25 Martin Johnson, July 26, 1923, prospectus draft, microfilm 1114a. The expectation that a film (Simba) made in the 1920s would be the last wildlife extravaganza was a wonderful statement of the belief that nature existed in essentially one form and could be captured in one vision. If only the

26 The principal sources for this section are correspondence, annual reports, photographic archives,

and artifacts in the AMNH; Akeley (1923); M. J. Akeley (1940); Akeley and Akeley (1922); Mary and artiface in Akeley's articles in The World's Work; and Delia Akeley's adventure book (1980). Delia Jobe and Carl Akeley's articles in The World's Work; and Delia Akeley's adventure book (1980). Delia Jobe and Oarling/Akeley/Howe. See N.Y. Times, 28 May 1970, 23. The buoyant racism in the books is Delia Denning/Akeley/Howe. See N.Y. Times, 28 May 1970, 23. The buoyant racism in the books is Dena Denial Britain and Articles of this contemporary of Margaret Mead makes Mary Jobe and Carl look cautious. Olds and articles of the provides a biographic portrait of Delia Akeley. Not sharing the elite social origins (1985: 71-154) provides a biographic portrait of Delia Akeley. Not sharing the elite social origins of most women explorers, Delia was born about 1875, on a farm near a small Wisconsin town, the or most a small versconsin town, the youngest of nine children of devout Catholic Irish immigrant parents. She ran away from home at youngest a varied a barber a year later. Nothing is known about the end of that marriage. Probably meeting him on hunting trips with her husband in Wisconsin, she married Carl Akeley in 1902, when he was still a taxidermist-sculptor at the Milwaukee Public Museum. Without hint of irony, Olds comments on the 1905-06 Akeley trip in Kenya: "The indispensable boys' took the place of horses, mules, or donkeys, because the tsetse fly made use of beasts of burden impossible" (Olds 1985: 87). In the project of recovering great white foremothers, Olds writes in 1985 in the same colonialist tones that permeate Akeley's work 60 years earlier. Olds's book is appropriately endorsed on the back cover by a NASA administrator. Olds makes a convincing case for the official scientific community's covering up Delia's role in Carl Akeley's explorations in favor of the story of Mary Jobe (Olds 1985: 150), Delia's bull elephant kill from 1906 is mounted in the Chicago Field Museum. She collected 19 mammalian species listed in the Field Museum catalogue, in addition to a large bird collection. Six weeks after her divorce from Carl in 1923, Delia was commissioned by the Brooklyn Museum of Arts and Sciences to lead an expedition to East and Central Africa. The museum director reported that it would be a "one-woman expedition"; i.e., "her sole companions on trips into the interior will be natives selected and trained by her" (Olds 1985: 114). To be with "natives" was to be "alone" epistemically. This scientific expedition was the first such venture led by a woman. Including a Dutch heiress, Alexine Tinne in 1862, an American feminist, May French Seldon, in 1891, and the British intellectual, Mary Kingsley, who traded throughout the Congo Free State in the 1890s, the theme of adventurer-white women "alone" in the "interior" of Africa does not begin with Jane Goodall and the National Geographic sagas. But the later coding of the woman as scientist is different. Contrast the popular reporting of the Goodall story in the 1960s with the 1923 headline in the New York World: "Woman to Forget Marital Woe by Fighting African Jungle

- Beasts." For the world in which Delia and Mary Jobe worked, see Rossiter (1982). 27 From English extraction on both sides, Mary Jobe Akeley (1878-1966) was born and went to college in Ohio. Her father's family had been in America since colonial times. Mary Jobe studied English and history for two years in graduate school at Bryn Mawr, earned a Master's degree at Columbia in 1909 and was on the Hunter College faculty until 1916. She owned and ran a summer camp for upper class girls in Mystic, Connecticut, from 1916-30, where Martin and Osa Johnson talked of their adventures. Married to Carl Akeley in 1924, she led her own expeditions in 1935 and 1947. Her wildlife photography dates from about 1914 (McKay 1980).
- 28 Engraved on a plaque at the entrance to Earth History Hall, AMNH.
- 29 H. F. Osborn, 54th Annual Report to the Trustees, p. 2, AMNH.
- 30 Carnegie (1889); Domhoff (1967); Kolko (1977); Weinstein (1969); Wiebe (1966); Hofstadter (1955); Starr (1982); Oleson and Voss (1979); Nielson (1972).
- 31 Latour (1988); Latour and Woolgar (1979); Knorr-Cetina and Mulkay (1983).
- 32 On decadence and the crisis of white manhood: F. Scott Fitgerald, The Great Galsby (1925); Henry Adams, The Education of Henry Adams (privately printed 1907); Ernest Hemingway, Green Hills of Africa (1935). On the history of conservation: Nash (1977, 1982); Hays (1959). On eugenics, race doctrines, and immigration: Higham (1975); Haller (1971); Chase (1977); Ludmerer (1972); Pickens (1968); Gould (1981); Chorover (1979); Cravens (1978); Kevles (1985). On sexuality, hygiene, decadence, birth control, and sex research in the early 1900s in life and social sciences: Rosenberg
- (1982); McCann (1987); Sayers (1982). 33 AMNH: Osborn, "The American Museum and Citizenship," 53rd Annual Report, 1922, p. 2. For the sweep of his work, see Osborn (1930).
- Osborn, 53rd Annual Report, 1921, pp. 31-32. Ethel Tobach helped me find material on AMNH 34 Osborn, "Citizenship," p. 2.

social networks, eugenics, racism, and sexism. Galton Society organizing meetings were in Osborn's home.

4 A Pilot Plant for Human Engineering

- 1 Yerkes (1925: Chpt. 13); Yerkes (1943: Section III).
- 2 Foucault (1973); Jacob (1974). Lamenting the capitalist logic of managers, but revering patriarchy. Lasch (1977: Chpt. 2) gives another view of the central place of personality sciences and study of social relations in capitalist management of the family in this period.
- 3 "[Sex as a political issue] was at the pivot of the two axes along which developed the entire political technology of life[:] the disciplines of the body [and] the regulation of populations. . . . [T]he mechanisms of power are addressed to the body, to life, to what causes it to proliferate, to what reinforces the species, its stamina, its ability to dominate, or its capacity for being used" (Foucault 1978: 145, 147). See also Baritz (1960); Barnes and Shapin (1979); Barker-Benfield (1972).
- 4 Noble (1977: 264); Braverman (1974).
- 5 Morawski (1986); Cross (1982); Angell (1907); Domhoff (1967); Mills (1956).
- 6 Robert M. Yerkes Papers (RMY): Testament, iv. The Testament is a 400+ page unpublished manuscript. A full biography of Yerkes is planned by James Reed of Rutgers. For biographies by Yerkes's contemporaries, see Hilgard (1965), Boring (1956), Carmichael (1957). Yerkes (1932a) wrote an earlier autobiographical statement. Excerpts from Testament dealing with primates were posthumously published (Yerkes 1963). According to Yerkes's daughter, Roberta Yerkes Blanshard, an editor at Yale Press at the time Testament was rejected for publication: "The MS did not seem to us to present a balanced account of RMY's life work; it overemphasized the phase of thought that he was going through at the time of writing it, his rethinking of his growth away from religion. He was doing his own thinking, but the results were not new; many had traveled that road before him. The original contributions to his life were correspondingly underemphasized" (personal communication, 23 July 1978). But the historian is particularly interested in what Testament shows to be shared. The itinerary from religion to science within a strong ideology of service is repeated and multiply varied in America in the early twentieth century. The story is a New Testament, where the mythic elements of salvation history are reworked in a scientific primal story. Yerkes's Laboratories of Comparative Psychobiology and his ideal of human engineering as the scientific production of cooperation cannot properly be understood apart from the tradition of Christian utopian literature and its search for the organon (logic, tool) of community. The mythic structure of Yerkes's Testament, as well as of his published work like Almost Human and Chimpanzees: A Laboratory Colony, is not idiosyncratic in primatology, where the fundamental text has remained a tale of origins, language, and tools in the historical crafting of nature, family, work, and community.
 - 7 The classic and still indispensable history of the great chain of being in western thought is Lovejoy (1960) [1936].
 - 8 RMY, correspondence folder 18: Yerkes to Angell, 12 May 1924; "Memorandum for President James R. Angell, Subject: Proposed Academic Center or Institute for Psychology," 12 February 1924.
 - 9 RMY, correspondence folder 18; Raymond Pearl to Yerkes, 2 June 1913, folder 28; Testament: 221-27; Yerkes to Angell, 12 May 1923. "There is one portion on the research program of this [Migration] Committee which might logically be located at Yale if our plans were realized. It has to do with the internationalizing or universalizing of methods of mental measurement." Brigham was kept by Princeton when Yale could not make a sufficiently attractive offer. Yerkes to Angell, 6 June 1924.
 - 10 Yerkes (1916, 1925, 1932b, 1943).
 - RMY: Annual Reports (1924-29) of the Institute of Psychology; of the Anthropoid Experiment Station of the Laboratories of Comparative Psychobiology (1990-85), later the Yale Laboratories of Primate Biology (1935-42); and the Yerkes-Angell correspondence. The Florida center housed about 30-40 animals at any one time. Many chimpanzees were gifts from the Abreu estate in Cuba, a private collection which formed the basis for Almost Human. Others had been collected by Nissen from French West Africa. The goal was eventually to have all laboratory, bred animals. The Yerkes

. . . . ب بن المناسب