Eadweard Muybridge, Thief of Animal Souls

By RANDY MALAMUD

BEFORE the animal- and human-motion studies for which he was best known, Eadweard Muybridge had already achieved prominence with other photographic projects, documenting the settlement of the American West. A spectacular overview of his career is on display now at the Corcoran Gallery of Art, in Washington. If you knew nothing about 19th-century American ideology, ambition, and development, you could deduce it pretty comprehensively from this exhibition.

"Helios. Eadweard Muybridge in a Time of Change" will be at the Corcoran through July 18, after which it travels to London’s Tate Britain, from September through January 2011, and then, fittingly, to the city whose growth and urban splendor he recorded so exuberantly, San Francisco, where the Museum of Modern Art will display the show from February through June. The exhibit takes its title from one of the several aliases that the photographer (who started out, in England, as Edward James Muggeridge) assigned himself. He signed his early work Helios, the Greek god of the sun, symbolizing the importance of light in his profession—photographs were sometimes called “sun drawings”—and also indicating his outsized ego. A central figure in this “time of change,” Muybridge embodied America’s geographical, industrial, and scientific evolution from a rough and immature upstart into the powerhouse it has been ever since.

Muybridge was not a nice man. His biographers have recounted the hard story of his neglected wife, Flora, and his cold-blooded murder in 1874 of a man he suspected was his lover. He got off scot-free, pleading insanity (he’d suffered a

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Severe brain injury during a stagecoach accident in 1860 and justicication for a crime of passion. When Flora died soon afterward, Maybridge placed her young son in an orphanage.

Maybridge's stop-motion sequences, facilitated by technologies he created to document instant-by-instant movements of living things, are the germ of cinematography. Thomas Edison (who met Maybridge in 1888 to discuss possible collaborations) conventionally gets credit for inventing moving pictures, with his 1894 Kinetoscope. But Maybridge's earlier work provides the foundation—technologically and perceptually—for transforming still images into moving ones. The zoopraxiscope, or "animal action viewer" that he invented to present moving images made him a pioneer.

The only surviving example of this machine is on display at the Corcoran. Fashioned out of crude wood and metal, gears and screws, it evokes a Ruhe Goldberg contraption, so unlike the sleek, compact design of today's cameras and iPads. But its improvisational quickness doesn't diminish its innovative brilliance.

"The Horse in Motion" (1877-78) was Maybridge's triumph. Periodicals worldwide published his astonishing images of the animal's gait (and some people found the photographs literally incredible, doubting their authenticity). A tireless self-promoter, Maybridge attracted large audiences on the lecture circuit for many years, starting in his own venue, the Zoopraxographical Hall, at the 1893 Chicago Exposition, in Chicago.

Largely supported by the University of Pennsylvania in the 1890s, Maybridge continued his motion studies with hundreds of subjects, human as well as nonhuman animals. The biurama tableaux (many made) are rigidly gendered. The men are athletic and virile, boxing, running, working. Women sweep, dust, and scrub floors; as Rebecca Solomon writes in the exhibition catalog, "they spend a remarkable amount of their time with cups, bowls, jugs, and vases." Given interest at the time in phrenology, anthropometry, and eugenics, Maybridge's motion studies entered into scientific and anthropological debates about the nature of the human body and the extent to which physiology determined the human condition.

But my research in anthropodology (human-animal studies) draws me primarily to Maybridge's animals, and inclines me to be suspicious of both his perspective and his motives in capturing these creatures' animating force. If Maybridge's contextualization of his human models relieves the prevailing notions of gender, his animal studies even more profoundly perpetuate the anthropocentric prejudice that other animals exist to serve our own higher purposes.

Some American Indians believe that to take someone's image involves actual incapacitation of the living spirit. Lucy R. Lippard's Partial Recall (New Press, 1992) details the justifiable anxieties that tribal people felt when white photographers came tramping through their worlds. Their pictures turned up on postcards with racist captions, or in government offices where visual evidence of "savage" costumes and rituals helped advance a genocidal agenda.

The huge documentary project of photographing native peoples turned the subjects into a kind of inventory. I contend that Maybridge's animal canon represents a comparable undertaking. Examining the colonizing power of photography—what Malek Aloula terms the "vivisection gaze"—Lippard quotes the Hopi photographer Victor Massey, who "sees the camera as a weapon" that can "violate the silences and secrets so essential to our race's survival." Lippard explains, "Photographers were called 'shadow catchers' by some tribes (the shadows referring to death, or the soul of the dead). The transfer of a black-and-white likeness to paper meant to some that a part of their lives had been taken away, to others that their vital power had been diminished."

I find similar incursions in Maybridge's animal pictures, which violate the secrets so essential to animals' survival. At first glance, the images seem innocuous enough: a horse running a course with 12 tripwire cameras (triggered by the wheels of the racing cart it pulls) completed a series of electrical circuits as it crossed a track and thus recorded its discrete changes in position from instant to instant. Le- land Stanford, the mogul who was Maybridge's patron, wanted to discover whether all four of a horse's legs left the ground simultaneously in a gallop; the naked eye could not discern this, so he hired Maybridge to find out. (They did.)

The plates show a faint sense of motion, though hardly noticeable, in the horse's mane.
and tail. The torso, too, appears relatively still in the multiple images. It is the legs that draw our attention: A foreleg is straight as a pole in one shot, then half-bent in the next frame, and almost impossibly tucked in under the breast in the following. The front and back sets of legs are identically coordinated in one frame, but completely different from each other, skew, in another. The complexities of locomotion—the biophysics, the spectacle of speed and energy—are frozen in each of these images, and recreated as the viewer regards the entire sequence.

People usually have an agenda when they engage animals, involving some literal or imaginative value they want to harvest. John James Audubon's oeuvre typifies this cultural exploitation. In his encyclopedic quest to paint every native bird, he killed thousands of them (since they are, of course, easier to paint if they're not flying around). The Birds of America was a stunning and lucrative achievement for Audubon, though less beneficial for the titular creatures.

Part of Stanford's agenda was improving the competitive performance of his beloved steed. In an anticipation of biomechanics, Stanford believed that a deeper understanding of equine locomotion would help him breed faster racing horses. More intricately, the show's curator, Philip Brookman, suggests in the excellent exhibition catalog (Stell and Partners, 2010) that another motivation for dissecting the details of animal locomotion was to propagandize for the controversial enterprise of mechanical locomotion, that is, the railroad.

Stanford was a kingpin in the Central Pacific's transcontinental railway, which had been completed with the famous ceremony of the golden spike at Promontory Summit, Utah, in 1869. Some lauded the achievement that so quickened travel from New York to San Francisco: The train journey of under a week replaced a 16,000-mile sea voyage around South America. Ralph Waldo Emerson praised the railroads' expansion, thrilled that distance had been "annihilated." He foresees a national American cultural assimilation that would efface provincialisms—"local peculiarities and hostilities"—and offers Americans "increased acquaintance ... with the boundless resources of their own soil."

But others were wary of the steam engine, which was frequently caricatured as a fiery dragon. Its noise and smoke offended sensibilities, as did its intrusive effect on the landscape. Foresters were loath to stoke its engines, consuming vast resources. Some believed that human beings simply were not meant to travel at the incomprehensible speed of 35 miles per hour. And there were fears (in retrospect, completely valid) that the railroad network would engender a homogenized and hyperindustrialized national culture.

Muybridge was clearly an apostle for the railroads. Landscape shots of tracks running through Western mountains are composed to evoke an elegant formal balance, not a disharmony, between the rails and the land. His photographs of railroad sheds, tunnels, and trestles convey an industrial eloquence. But it is the horse-motion photos that most cunningly advance this agenda. The horse, reimaged as a machine, became "a powerful metaphor for the escalating transportation markets and accompanying industries that Stanford controlled," Brookman writes. "The implied equation between the mechanics of industry and that of nature linked the speed and power of the locomotive to the guilt and beauty of the racehorse."

(Central Pacific engineers helped Muybridge develop the technical foundation for "The Horse in Motion.")

In his earlier career, too, Muybridge was working for The Man, using photography to abet the dominant expansionist sensibilities of the time. A series of time-lapse photographs of the construction of the San Francisco Mint in 1870-72—anticipating his interest in watching how a physical form advances through time—celebrates the imposition of mechaenicof federal grandeur in the Wild West. An 1875 trek of Central America (for which he became Eduardo Santos-Muybridge) generated pictures of coffee plantations as agricultural industry in all its stages of production. Besides offering another foreshadowing of Muybridge's interest in breaking down an activity to its constituent parts, as the motion studies would do, the photographer, Brookman writes, was "most interested in conveying the image of profitability in a land of promise and tranquility, a stand that upheld the colonial character of his patronage." The Pacific Steamship Company, Eduardo's sponsor, stood to profit from increased trade in the region.

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When the purchase of Alaska, in 1868 ("Seward's Folly"); proved unpopular, the government sent Maybury to record the landscape, native peoples, and new American military installations that convinced audiences of Alaska's spectacular value.

Another commission sent Maybury traveling with the Army in 1873 to the Lava Beds at Tule Lake, in Northern California, where the Modoc tribe was fighting for its survival. His photography served both to document the harsh landscape, sacking Army manpower in the area, and to suggest "mission accomplished" (although the campaign was not, in fact, progressing well). One photograph, of an American Indian military scort "lying in wait for a shot," falsely identified the man as a Modoc brave, inciting Maybury's willingness to deceive viewers. (He frequently retouched photographs. Sometimes, if a moment was missed as a result of underexposure, he painted a moon on it and pretended that it was there.)

To walk through any room of this exhibit is to see the breadth, vastness, passion, and domination of the landscape. In images from the California coast and Yosemite Valley, Maybury celebrates the stature of nature, giving viewers a tantalizing new perspective and implicitly surveying it in preparation for colonization (involving removal of troublesome natives), industry, transport, and urban development. A rare admixture of nature resonates in his photography, though if it is hindered the desired composition, he would cut it down.

The Animal Images are in keeping with that perspective, Maybury's photographs starkly alternate animals from their natural context. They appear against a backdrop of numbered scales and grids, the more convenient to chart and graph themes of American expansion, and the domination of the landscape. In images from the California coast and Yosemite Valley, Maybury celebrates the stature of nature, giving viewers a tantalizing new perspective and implicitly surveying it in preparation for colonization (involving removal of troublesome natives), industry, transport, and urban development. A rare admixture of nature resonates in his photography, though if it is hindered the desired composition, he would cut it down.

To see animations using Eastman Mayo's animal motion photographs, visit Chroniclereserv.com.

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It is undeniably fascinating to see these birds, bears, greyhounds, oxen, horses, and horses move, to see how the individually captured stances together reveal the spirit of the animals. And if the images are striking today, imagine how much more amazing the must have been in their own time. Viewers were shown something that they had seen but never seen. It must have seemed miraculous.

But do these images displace the actual movement of the animal? Have we taken motion from the animal? Having penetrated the animal's sense, its force of speed, do we exert some kind of control over it? The animals are curiously reduced, caught in the mechanics, the physics, of photography. They are composed not of flesh and blood and hair, but of silver albumen and paper. There were so many of them in the Corcoran Gallery that I couldn't really see them at all. I certainly couldn't bear them, or small them, or feel (as I do in proximity to a real horse) overwhelmingly dwayed by them. Broken down by Maybury and his contemporaries, they don't do much for the horse, and they don't do much for the horses. Their force and motion no longer seem their own, but Maybury's, and ours. Something of their wildness has been trapped, isolated, reduced to a gated. Although the human viewers learn much more about the horses, I believe the horses themselves lose something in this transaction.

A contemporary review in The San Francisco Call confirms that Maybury's audiences believed they were seeing "apparently the living, moving horse. Nothing was wanting but the clutter of the hoofs upon the turf and an occasional burst of steam from the nostrils to make the spectator believe that he had before him genuine flesh and blood steeds." Solnit, in Rivers in Shadow: Envisioned Maybury and the Technological Wild West (Viking, 2003), describes Oliver Wendell Holmes's sense of how "photographs of the material world seemed to eclipse their subjects." In an 1889 essay, Holmes wrote: "Give us a few negatives of a thing worth seeing, taken from different points of view, and that is all we want of it. Pull it down or burn it up, if you please... We have got the fruit of creation now, and need not trouble ourselves with the core." In 1977, the art critic John Berger wrote in "Why Look at Animals?" "The image of a wild animal becomes the focal point of a daydream, a point from which the daydreamer departs with his back turned." Once we have the picture of something, that thing itself loses its value to us. Walter Benjamin, in his 1936 essay "The Work of Art in the Age of Mechanical Reproduction," writes that "the reflection of technology in that technology offers "has become separable, transportable. And where it is transported? Before the public."

Extrapolating Benjamin's analysis, I continue: Where has the image been separated from? From the animal. Audiences were (and are still) inclined to value simulae above reality. The ability to create and present such images highlights the blissful of technology as it impinges on the relevance of the original object itself. Horses are expensive to keep, and they will die, but the image of the horse is more enduring. Over the decades after Maybury's work, the same phenomenon occurred in other media: recorded discs replaced symphonies, and a silver screen supplanted the presence of real human performers in dramas.

Nineteenth-century Americans (enabled by railroads) chopped up animals not just visually but in fact, removing them from people's immediate experience and repressing them, stripped of their own animal integrity and transformed into artifacts for human consumption. The meatpacking industry relocated hogs and cattle from ubiquitous local farms into isolated Midwestern production-line slaughterhouses, where their carcasses were efficiently converted into standardized cuts of meat to be transported across the country. The commodification consequent upon 19th-century factory farming bears an ideological affinity to the dissections of Maybury's motion studies. Did Maybury's animals suffer pain as they moved past the lens? At least one did. Sardistically, the photographer set a Philadelphia zoo tiger loose on an old (buffalo) to record a motion study of an actual killing. (One of his specimens came from the zoo, so they were already restrained and probably unhappy.)

The bottom line is that animals caught in the sightlines of technological innovations suffer for the encounter, as people come to devalue the integrity, the inherent wild and pristine animality, of creatures who get sucked into human culture.

Maybury keenly influenced other artists from his own time to the present. Edgar Degas, after seeing Maybury's photographs, realized that he had been painting horses incorrectly and revised his subsequent representations accordingly. Thomas Kinkade, who befriended Maybury in Philadelphia, conducted his own motion studies, and his noble incited horses, too, reflect Maybury's insights. Marcel Duchamp's 1912 painting "Nude Descending a Staircase, No. 2" obviously reiterates Maybury's technique, as the single figure takes on a multiple presence through the sense of sequence of sensory data but has the potential to enlighten us. I am in the knowledge business, after all, and inclined to affirm that greater understanding is good. But when epistemological technologies such as Maybury's engage nature, too often the interaction is a zero-sum game. More knowledge for us means less for the "victims" of our knowledge.

Animals are worse off, more encroached upon, than they were, say, 200 years ago, and cultural representations of animals matter. Equitable and ecologically intelligent engagements with animals emanate from societies that treat their cohabitants well, and "animal positive" cultural texts encourage continued good behavior. But representations that imaginatively or literally rip animals out of their worlds and restate them as subalterns, or feath brill, or "resources" in our world trouble for our fellow species. Maybury's complicity in his era's expansionist and industrial fantasies means, in my judgment, that his photography was ultimately destructive to the animals he so keenly observed. In seeing a horse as a vehicle to make railroads more palatable, he undercut the horse's essential horsemanship.

So to Edsion (see his horrifying early film "Electrocutioning an Elephant"), Sir Thomas Stanley (founder of the modern zoo), Audubon, P.T. Barnum, Stanford, Maybury, Damien Hirst (the contemporary British ani- mal-mutilating artist), et al., I say Farewell.

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