Paleoanthropology Without Inhibitions

Lucy. The Beginnings of Humankind. DONALD C. JOHANSON and MAITLAND A. EDEY. Simon and Schuster, New York, 1981. 410 pp., illus., + plates. $16.95.

Increasingly, we encounter serious and pop anthropological books that probably need not have been published and fewer books that are truly useful and interesting. A normal reaction to the latter rarities is to wish that one had written them oneself. With *Lucy*, Johanson and Edey have created a new genre: a captivating, informative book of which authorship may not be coveted because it contains bold commentaries that will unnecessarily offend a number of colleagues. It is a spicy potpourri of exceptionally lucid expository scientific writing, tattling exposé, novelized conversations and events, nostalgia, and wishful thinking. The idiom is decidedly middle American. The book is oddly reminiscent of *20/20* and *60 Minutes*.

Johanson and Edey have pursued several objectives concurrently, presenting a general account of the nature and possible evolutionary meanings of the Pliocene hominid fossils from Hadar, Ethiopia, a history of paleoanthropology with special emphasis on the past quarter-century, and a fragmentary autobiography of the senior author. When I visited Cleveland in 1979 to study the Hadar fossils, Johanson mentioned that he intended also to convey what it is like to do paleoanthropology currently.

Chapters 1 through 6, constituting about two-fifths of the text, are a historical backdrop against which the Hadar discoveries and their aftermath are to be viewed. Much of it has been told before, though chapter 5 on Omo and F. Clark Howell is fresh. Considering that the authors mostly iterate readily accessible biographical anecdotes, one expects a high degree of accuracy here. This is not always to be found. For instance, Johanson and Edey state (p. 80) that Louis Leakey "felt so strongly that Teilhard de Chardin was guilty" of perpetrating the Piltdown hoax that "in 1971 he refused to attend a symposium honoring" him. Yet we know from Cole's biography of Leakey (*Leakey 's Luck* [1975], p. 374) that he forthrightly expressed his opinion to the organizers of the conference, was thanked for his candor, and attended the meeting despite his poor health. Hurtful hearsay, more suitable for an *International Inquirer*, is also conspicuous in the historical sections of the book, as when Leakey, the son of English missionaries, is purported to have uttered American profanity upon first seeing "Zinj" (pp. 90–92).

The heart of the volume lies in its second two-fifths. Here we share the thrill of discovery, the tensions from working in the midst of political turmoil, the tedium of the laboratory, the uncertainties about reactions of colleagues to one's ideas, and the changes of mind that are part and parcel of paleoanthropology. Johanson is refreshingly candid about what he now perceives to have been errors in his initial classification of the Hadar fossils and his co-workers' dating of them geochronologically (p. 207).

The accounts of potassium-argon dating (chapter 9) and of the craniodental features that indicate the extent to which the Hadar hominids resemble African apes, other Plio-Pleistocene hominids, and humans (chapter 13) are excellent. But again we find friends romanticized (Loring Brace is handsome [p. 296], Bill Kimbel is a giant, and Bruce Latimer is a tawny blond All-American [p. 220]) while rivals are vilified. Mary Leakey incurred the authors' invective because she refused to endorse *Australopithecus afarensis* from her field camp. One wonders what reputable scientist would co-author a taxonomic paper without first studying the entire hypodigm and, if not expert about the materials, being led point by point over the diagnostic features with proper comparative materials at hand. If Richard Leakey sends Johanson the bottle of wine he *now* owes him, Johanson had better test it before he tastes it.

I can recall at least five professors at the University of Chicago who contributed to Johanson's formal training in paleoanthropology, dental anthropology, osteology, and primatology. He mentions only two of them. One is effusively extolled and the second is immortalized as a *bête noire extraordinaire*. Perhaps the others are lucky to have escaped recollection.

The latter chapters of *Lucy* are salted with factual errors. For example, not all chimpanzees are dark-skinned (p. 275); gibbons and siamangs do not have shrunken, short, and weak lower limbs (p. 317); and all estrous baboon "girls" do not "appeal to all the boys" (p. 334).

From a strictly scientific point of view, the weakest part of the book is found in chapter 16, where the authors repeat Lovejoy's (*Science* **211**, 341 [1981]) theory about the evolution of bipedalism. There is a growing consensus among experts on the evolution of anthropoid locomotion that arboreal vertical climbing had a good deal to do with the emergence of hominid bipedalism. This is ignored totally in favor of a somewhat tortuous argument relating to special *K*-selection, pair-bonding, monogamy, and carrying food and youngsters to keep the group upright. Lovejoy is bound to have his own hands full as feminists pursue him for some implications of the theory. The sort of monogamy that I think he is describing is more for the birds. The few primates that are monogamous are skeletally quite monomorphic, whereas the Hadar hominids appear to have been very dimorphic.

In *Lucy*, the long, curved toes of the Hadar hominids are explained as adaptations to "strong" walking on rough stony ground and mud, where gripping would be useful (pp. 345–346). It is perhaps more probable that the creatures were still partly arboreal. Whether feet like those from Hadar could have made virtually human footprints like those at Laetoli is also moot.

Lucy ends with Johanson in the sky with diamonds. Further fieldwork in Hadar was planned. Unfortunately, the resurgence of political problems has curtailed his work in Ethiopia. It is to be hoped that the situation will change soon, that Johanson and his talented coworkers will surpass their previous extraordinary accomplishments, and that we will be treated to a second, more gracious book about them.

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A Life in Paleontology

A Fossil-Hunter's Notebook. My Life with Dinosaurs and Other Friends. EDWIN H. COLBERT. Dutton, New York, 1980. xiv, 242 pp., illus. $15.95.

A fascination with dinosaurs has lured many young persons into paleontology, but with Edwin H. Colbert, who became an expert on dinosaurs, it was fossil mammals and the love of outdoor life. The shiny white bones of skeletons