



FIGURE 10.9.

"Lucy" was a female approximately four feet tall and twenty years old who lived three million years ago in present-day Ethiopia. The skeleton is 40% complete. (Courtesy Cleveland Museum of Natural History.)

Lucy is a highly unique find not only because of her great age (between 3.0 and 3.5 million years), but also because of her completeness. All specimens in the hypothetical human family tree from *Ramapithecus* through *Homo erectus* were pieced together from fragments: a bone here, a skull fragment there, a few teeth nearby. Lucy is unique in that her bones and the pieces of her skull were found in the same location and represent about 40% of a complete skeleton (see figure 10.9).

Johanson and his associate, Tim White, believe that Lucy and her related family were apes that walked erect and had other human-like characteristics. The name *Australopithecus afarensis* (Southern Ape from Afar) has been chosen for this hominid.

Lucy was about three and one-half feet tall, and her skull resembles a small female gorilla.<sup>8</sup> That she walked erect is indicated from her pelvic bones, which are distinctly different from those of a modern chimpanzee. Upright walking at this early date is confirmed by discoveries made by a team headed by Mary Leakey (wife of Louis Leakey and mother of Richard Leakey). In 1977, Mary Leakey's team at Laetoli (1000 miles south of the Afar Triangle) found fossil footprints cast in volcanic ash, which allowed for reliable dating. Believed to be footprints of *Australopithecus afarensis*, they established that upright-walking creatures existed in East Africa at least 3.7 million years ago.

The hominid *A. afarensis*, represented by Lucy, appears to cover the time period from roughly 3.5 to 3.0 million years ago. In June 1982, J. Desmond Clark and Timothy D. White of the University of California at Berkeley announced that their fifteen-member expedition had found the upper part of a thigh bone and frontal skull fragments that date at 4 million years ago. The fragments were found forty-five miles south of the site of the Lucy discovery. While Clark and White were rightly cautious in their comments regarding the significance of their finds, *Time* magazine carried this sub-headline: "A 4-million-year-old human ancestor is unearthed in Ethiopia" (*Time*, June 21, 1982). From part of a thigh bone and a few skull fragments reporters concluded that a human ancestor had been found.

Because the four-foot-high *A. afarensis* apparently walked only on two legs, it became the world's first-known hominid. No tools are associated with the fossil skeletons, and it is uncertain what Lucy ate or how she survived. There is no concrete record of where she came from or what her family evolved into, but, at present, some