



Animated Life: Mary Leakey

MEAVE LEAKEY: I've never really thought footprints are terribly interesting.

[Ancient Laetoli savanna, 3.6 million years ago]

[Voice of Maeve Leakey, Paleoanthropologist, Mary Leakey's daughter-in-law, Stony Brook University]

MEAVE LEAKEY: But those particular ones, because of their age, because how well-preserved they are, they're absolutely unique.

[Voice of Ian Tattersall, Curator Emeritus, American Museum of Natural History]

IAN TATTERSALL: We want to know about ourselves, and we want to know where we came from. And we want to know what elements entered into our becoming human.

[Leakey camp, 1935]

PAT SHIPMAN: Mary and Louis Leakey were a couple who almost single-handedly demonstrated that there was important early anthropology of humankind in Africa.

[Voice of Pat Shipman, Paleoanthropologist, Pennsylvania State University]

MEAVE LEAKEY: Most scientists—in the West, anyway—didn't believe that humans evolved in Africa. And it was Louis's persistence, because he'd grown up in Africa. He'd seen stone tools lying around, and he always felt Africa was the home of mankind.

IAN TATTERSALL: Louis was the grizzled explorer who would produce fossils out of the pocket of his overalls with a flourish.

MEAVE LEAKEY: Oh yeah, Mary was always the scientist behind the two of them. She was the one who was doing the fieldwork. And Louis was the one who was raising the funds and drawing the publicity and the popularity.

[Who was Mary Leakey?]

RONALD CLARKE: I first met Mary in 1963. She was a rather formidable character to me.

[Voice of Ronald Clarke, Paleoanthropologist, University of the Witwatersrand]

PAT SHIPMAN: She was one who did not suffer fools gladly.

MEAVE LEAKEY: She loved her cigars. She liked her whiskey.

RONALD CLARKE: She loved her dogs. One of the dogs might come up and look at you, and she'd say, Ron, I think Sammy would like your potato skin. And somebody would give the dog a piece of potato skin, and she'd say, no, no. He's got to have butter on it. Meanwhile, we were rationed on butter.

MEAVE LEAKEY: There were very few women scientists when she began.

RONALD CLARKE: She ran the affairs there.

MEAVE LEAKEY: She just would not tolerate bad work. And she'd, you know, go out to them saying, what do you think you're digging? You're not digging your garden. You're not digging potatoes.

RONALD CLARKE: She was a meticulous excavator.

MEAVE LEAKEY: And that's what people do now, and I think she was one of the first to use such exacting methods.

[*Proconsul africanus* 1948]

IAN TATTERSALL: The Leakeys made major contributions to the discovery of early human ancestors in Africa.

[*Paranthropus boisei* (*Zinjanthropus boisei*) 1959]

[*Homo habilis* 1964]

IAN TATTERSALL: They continued working at Olduvai Gorge right up into the early 1970s, when Louis died.

PAT SHIPMAN: I think returning to the work she loved for Mary may have been a solace. And not many years after Louis died, she would discover something unprecedented.

[The discovery, 1976]

MEAVE LEAKEY: I think it was '76, wasn't it?

RONALD CLARKE: That's right.

[Rock hyrax, *Procavia capensis*]

IAN TATTERSALL: You know, in the field, it's very hard work, and you're always looking for distraction.

PAT SHIPMAN: People do all kinds of goofball things at the end of the day. The story goes that people were throwing elephant dung at each other.

[dung]

PAT SHIPMAN: And upon missing the elephant dung frisbee that had been tossed to him, Andrew Hill—

IAN TATTERSALL: —dove to the ground and found himself face to face with a footprint. I think it was a giraffe, or it was a large mammal.

PAT SHIPMAN: There were elephant footprints. There were Guinea fowl.

MEAVE LEAKEY: Mary herself excavated them.

IAN TATTERSALL: And it was incredibly arduous work. But, of course, in the back of the mind of every paleoanthropologist, the hope is to find a hominid track.

[Two years later]

And it's that that was realized at Laetoli.

PAT SHIPMAN: There they were—ancient hominid footprints.

MEAVE LEAKEY: They were just spectacular.

PAT SHIPMAN: It is a remarkable find. It gives a flash into the past.

MEAVE LEAKEY: The footprints were preserved by a volcanic eruption.

IAN TATTERSALL: A nearby volcano puffed out a cloud of this carbonic-type ash. Then, it rained, and the rain turned this volcanic ash into a kind of a muddy slurry, a bit like wet concrete.

RONALD CLARKE: While it was still wet, the animals came out again and walked over it, including the hominids. You wonder what was going through their mind. What did they think about this volcano?

IAN TATTERSALL: These are our ancestors. These are the creatures that ultimately gave rise to ourselves, and we want to know what they were like.

[Interpretation]

IAN TATTERSALL: As far as the number of hominids that made the trackways is concerned, there's a bit of dispute.

RONALD CLARKE: I'm convinced there were only two.

MEAVE LEAKEY: I would actually disagree that.

RONALD CLARKE: Mary thought there were three.

MEAVE LEAKEY: You can see that the individual walking behind has put his feet in the footprints of the individual in front.

RONALD CLARKE: That is still under active discussion.

IAN TATTERSALL: Very few of us agree on every point of analysis, and this is how science progresses.

MEAVE LEAKEY: It is. Yeah.

IAN TATTERSALL: These footprints—what they did was to prove that hominids were up, moving around on two feet three and a half million years ago. We already had the skeletal remains that showed us that the early hominids were upright walkers.

[*Australopithecus afarensis*]

IAN TATTERSALL: But here, for the first time, we could see the actual footprints showing the manner in which they walked upright.

MEAVE LEAKEY: Bipedal walking is considered to be one of the hallmarks of humanity. If you're walking on four legs, your hands are not free to do all the things that we do with our hands.

IAN TATTERSALL: Without our hands, we could never have become human.

RONALD CLARKE: That's, of course, only a small segment of the Leakeys' contribution. Mary demonstrated that dedication pays off. You dedicate yourself, and you achieve results.

PAT SHIPMAN: I think she was to me and to many other women in this field, Mary was an inspiration.

[Mary Leakey, 1913-1996]