

### **Australopithecus Afarensis Artifact 1: Lucy**

Site: Hadar, Ethiopia

Age: About 3.2 million years old

Species: [\*Australopithecus afarensis\*](#)



Her long arm bones and the crest created by muscles that attach to her upper arm bone are evidence of a powerful chest and strong upper arm muscles necessary for tree climbing. Her short, broad pelvis also held her body upright while angled-in thigh bones kept her body weight directly above her knees while in stride, both requirements for walking efficiently on two legs. Lucy's compact feet were capable of supporting her full body weight as she walked upright, but her long, curved toe bones resemble that of a tree-climbing ape. Because Lucy could walk upright on the ground and climb trees, she and other members of her species were able to use resources from woodlands & grasslands.

### **Australopithecus Afarensis Artifact 3: Selam**

Site: Dikika, Ethiopia

Age: About 3.3 million years old

Species: [\*Australopithecus afarensis\*](#)



*Artist's Depiction of Selam*

The fossilized remains of this 3 year-old child (nicknamed "Selam") was found only a few miles south from where Lucy was found.

Because Selam's baby teeth erupted in a pattern similar to a three-year-old chimpanzee's, researchers now know *Au. afarensis* children shared a chimpanzee's fast growth rate.

Her legs indicate she could walk upright, but other skeletal features showed she could also climb trees. The hyoid bone beneath her neck looks ape-like, and her gorilla-like collarbone and long, curved fingers show significant tree-climbing.

## Australopithecus Afarensis Artifact 2: Laetoli Footprint Trails

Age: About 3.6 million years old

Species: [\*Australopithecus afarensis\*](#)

Site: Laetoli, Tanzania

### The footprints of our predecessors

The Laetoli footprint trail is almost 88 feet long and includes impressions of about 70 early human footprints.

3.6 million years ago in Laetoli, Tanzania, two early humans walked through wet volcanic ash. When the nearby volcano erupted again, subsequent layers of ash covered and preserved the oldest known footprints of early humans.

The early humans that left these prints were bipedal and had big toes in line with the rest of their foot. This means that these early human feet were more human-like than ape-like, as apes have highly divergent big toes that help them climb and grasp materials like a thumb does. The footprints also show that the gait of these early humans was "heel-strike" (the heel of the foot hits first) followed by "toe-off" (the toes push off at the end of the stride)—the way modern humans walk.

The close spacing of the footprints are evidence that the people who left them had a short stride, and therefore probably had short legs. It is not until much later that early humans evolved longer legs, enabling them to walk farther, faster, and cover more territory each day.



## Australopithecus Afarensis Artifact 4



### What did they eat?

Paleoanthropologists can tell what *Au. afarensis* ate from looking at the remains of their teeth. Dental microwear studies indicate they ate soft, sugar-rich fruits, but their tooth size and shape suggest that they could have also eaten hard, brittle foods too – probably as ‘fallback’ foods during seasons when fruits were not available.

### Cranium and face structure

There is an obvious difference in the cranium size between a modern human and an ape, but the early Australopithecines were small brained. Cranial capacity does not increase markedly until the emergence of our own genus *Homo*.

**Organ of balance in the inner ear more ape-like than human**

## Fossils scrutinized

Partial fossil evidence of the Australopithecus afarensis suggests an ape-like anatomy, better at climbing than humans.

**Fingers very curved**

**Scientist have yet to retrieve the toe, which may be chimp-like**

