

Raymond Dart and His Killer Ape-Men

Famous Anatomist

Studied in South Africa and Found Taung Child

Taung Skull Not Accepted as Human Relative

Fossilized Bones from South Africa

Lessons to be Learned From Dart

- **Dart was an Australian anatomist famous for 2 ideas:**
 - o *Au. Africanus* was a hominin, a human relative
 - correct
 - o *Au. Africanus* was a vicious weapon-wielding predator
 - incorrect
- **Studied in South Africa**
 - o Plio-Pleistocene hominid sites and the African Rift Valley system
 - o South African “caves” are actually old sinkholes
 - o An unusual primate skull discovered at Taung limeworks 1924
 - The Taung Child
 - Two derived features
 - Human like teeth
 - Foramen magnum at base of skull

- But it was ape-like in other features (brain size)
- **Dart toured Europe with Taung skull, but nobody accepted it was a human relative. Why not?**
 - o Juvenile specimen
 - o Widely believed that large brain evolved first and then the teeth and other traits ([Piltdown hoax](#))
 - Parts of cranium, jaw and some teeth discovered in England in 1912 - argued to be of a single individual
 - Made of many different animals
 - 1913-1923 a few scholars identified it as a hoax,
 - wasn't until 1953 that it was widely believed to be a fake, seeded at the "site"
 - o So he looked for additional evidence of human-like behavior
 - fire
 - tool use
 - hunting and violence
(even though among great apes, these were unknown at the time)
- **Other fossilized bones from South African "cave" deposits**
 - o some patterns emerged
 - there were bones from many different animal species
 - some body parts (vertebrae, ribs) were too rare
 - others (heads, limbs) were too frequent
 - bones were often broken in regular, predictable ways
 - o no stone tools in South African cave sites - big problem
 - o Dart argued that broken bones were tools

- fabricated his own culture: Osteodontokeratic (bone tooth horn)
- the notion of early humans as “killer apes”
 - fit with recent experience (WWI, WWII, Cold War)
 - popularized by writer Robert Ardrey (“African Genesis”, “The Territorial Imperative”)
- o 1981: “The Hunters or the Hunted? An Introduction to African Cave Taphonomy” by C.K. Brain
 - Brain found that wild dogs, hyenas, and leopards separate bones of carcasses the same way as what Dart saw
 - Leopards were the main culprit of all the bones Dart found
 - When limbs fell out of trees where leopards eat, they fell into sink holes
 - Hominins were the hunted, not the hunters
- **Lessons to be learned:**
 - o Scientist cannot help but be influenced to some degree by the society around them
 - o An idea may receive widespread acceptance more because it is easy to accept than because it is the best explanation (**content bias**)
 - o Science is self-correcting and is not static
 - o As new data accumulates and new ideas are proposed, old explanations are constantly challenged and re-evaluated.

Early Homo & Oldowan Toolmakers

Early Homo

Earliest Archaeological Evidence

The “Oldowan” and Mode 1 Tools

First Archaeological “Sites”

Oldowan Scatters Provide Early Evidence