



Gona site, Ethiopia

Volcanic ash layers

- Stratigraphy
 - Relative age ("older than X")
- Radio-metric Dating
 - Potassium-Argon method
- Correlations
 - Paleomagnetic stratigraphy
 - Bio-stratigraphy

Gona site, Ethiopia

Volcanic ash layers

Gona stratigraphy

How can we date tuffs?

- Radiometric Dating (*Images pp 22-23*)
 - Radioactive isotopic decay
 - ❖ Volcanic rocks & ashes (tuffs)
 - ❖ Potassium - Argon
 - ❖ $K^{40} \rightarrow Ar^{40}$
 - ❖ Half-life = 1.3 billion years
 - ratio K/Ar or Ar^{40}/Ar^{39}

K/Ar demo

Gona site, Ethiopia

Best date for site?

Volcanic ash layers

Should we date the lava artifacts?

Gona stratigraphy

