



**Goal:** Utilize sand units from four **Hominin Sites and Paleolakes Drilling Project** cores to reconstruct paleoerosion rates, exhumation rates and sediment provenance

**Questions:** Investigate global climate variation, local faulting, regional orography and fluvial network reorganization within the watersheds of the drill sites → implications for hominin habitats and demography

### Methodologies:

- (1) *In situ* cosmogenic radionuclides (CRNs) to reconstruct millennial-scale paleoerosion rates [quartz]
- (2) Low-temperature (U-Th)/He thermochronology to reconstruct million year-scale exhumation rates [detrital apatites and zircons]
- (3) High-temperature U-Pb thermochronology to determine sediment provenance [detrital zircons]

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Drill Site	Core Age Range
Baringo Basin/ Tugen Hills (TH)	3.3–2.5 Ma
Chew Bahir (CB)	700 ka–present
Northern Awash (NA)	3.3–2.9 Ma
West Turkana (WT)	1.9–1.4 Ma