

SAHRIS OBJECT PDF REPORT

Object Code: FOSSILTOOTH-STERKF- 13608
Quantity: 50.00
Cultural Association:
Maker:
Production Place:

Description:

Objectives: The overarching goal for this project is to reconstruct the trophic level of southern African Australopithecus and how much meat – compared to plant-based resources – these early hominins consumed in the Pleistocene. These essential deficits of knowledge can be addressed by nitrogen isotopes ($\delta^{15}\text{N}$) studies, because it can inform about the individual's position in the (paleo)food chain. Until now, determination of $\delta^{15}\text{N}$ data was only possible on (hominin) specimens younger than 100,000 years due to the need of large quantities of fossil collagen which were only insignificantly geochemically changed due to postmortem alteration. In recent years, a new biogeochemical method measures $\delta^{15}\text{N}$ values with high precision on extremely small sample sizes, which finally permits to analyze Pleistocene samples, e.g., fossil (hominin) enamel. In cooperation with the Max Planck Institute for Chemistry (MPIC) in Mainz (Germany), a baseline $\delta^{15}\text{N}$ values of faunal elements which were potentially available to Australopithecus will be established to then ultimately analyze the hominin tooth enamel itself. The new $\delta^{15}\text{N}$ results will be unique and, for the first time, allow the reconstruction of trophic level and meat consumption of hominins from the Pleistocene.