Paleo Core – A Platform for Data Integration in Paleoanthropology

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Keywords: data integration; data standards, open science, data sharing, vertebrate paleontology, Paleolithic archaeology, sedimentary geology

Paleoanthropology is transitioning from individual, project-focused initiatives to broader platform-focused initiatives that integrate data across multiple sources in order to address bigger-picture questions regarding human origins.

Initiated in 2012 with funding from the US National Science Foundation, Paleo Core hosts data from ten (and growing) active research projects with over 85,000 fossils, artifacts and geological samples and the ability to store geospatial locations for each item. Data from these collections is mapped to a standard data structure, which promotes data sharing, common best-practices for data acquisition and greater overall collaboration between formerly siloed research teams.

Paleo Core features a website and online platform for collecting, managing, and analyzing paleoanthropological specimen data. The Paleo Core platform hosts tools to facilitate digital data collection in the field and to import these data into a central repository online. The online platform provides a web-based collaborative interface that allows research teams to manage biological, geological and archaeological collections effectively. It features a comprehensive conceptual model based on existing international data standards that foster data integration across projects. This integration is the keystone supporting linked-data and global search and query across research projects that choose to share and integrate their data.

Paleo Core is designed as a data management platform for researchers at the initial and intermediate stages of the data lifecycle, from data collection, analysis, and publication up to accession in museum collection management systems. By providing the crucial infrastructure for digital data management at the acquisition and analysis phase, Paleo Core helps stem the tide of legacy analog data and promotes fully digital workflows from start to finish.

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Reed, D. (2022). Paleo Core – A platform for data integration in paleoanthropology. In A. W. Kandel, M. N. Haidle, & C. Sommer (Eds.), *Human Origins – Digital Future: An International Conference about the Future of Archaeological and Paleoanthropological Databases* (p.53). Propylaeum, Heidelberg. DOI: https://doi.org/10.11588/propylaeum.882.c13448