

## References

### Anthropologie

#### LIPSON 2020

Mark Lipson et al., *Ancient West African foragers in the context of African population history*. [nature](#) **577** (2020), 665–670.

[n577-0665-Supplement.pdf](#)

Our knowledge of ancient human population structure in sub-Saharan Africa, particularly prior to the advent of food production, remains limited. Here we report genome-wide DNA data from four children—two of whom were buried approximately 8,000 years ago and two 3,000 years ago—from Shum Laka (Cameroon), one of the earliest known archaeological sites within the probable homeland of the Bantu language group<sup>1–11</sup>. One individual carried the deeply divergent Y chromosome haplogroup A00, which today is found almost exclusively in the same region<sup>12,13</sup>. However, the genome-wide ancestry profiles of all four individuals are most similar to those of present-day hunter-gatherers from western Central Africa, which implies that populations in western Cameroon today—as well as speakers of Bantu languages from across the continent—are not descended substantially from the population represented by these four people. We infer an Africa-wide phylogeny that features widespread admixture and three prominent radiations, including one that gave rise to at least four major lineages deep in the history of modern humans.

Mark Lipson, Isabelle Ribot, Swapan Mallick, Nadin Rohland, Iñigo Olalde, Nicole Adamski, Nasreen Broomandkhoshbacht, Ann Marie Lawson, Saioa López, Jonas Oppenheimer, Kristin Stewardson, Raymond Neba'ane Asombang, Hervé Bocherens, Neil Bradman, Brendan J. Culleton, Els Cornelissen, Isabelle Crevecoeur, Pierre de Maret, Forka Leypey Mathew Fomine, Philippe Lavachery, Christophe Mbida Mindzie, Rosine Orban, Elizabeth Sawchuk, Patrick Semal, Mark G. Thomas, Wim Van Neer, Krishna R. Veeramah, Douglas J. Kennett, Nick Patterson, Garrett Hellenthal, Carles Lalueza-Fox, Scott MacEachern, Mary E. Prendergast & David Reich

#### WADLEY 2020

Lyn Wadley, Lucinda Backwell, Francesco d'Errico & Christine Sievers, *Cooked starchy rhizomes in Africa 170 thousand years ago*. [science](#) **367** (2020), 87–91.

[s367-0087-Supplement.pdf](#)

Plant carbohydrates were undoubtedly consumed in antiquity, yet starchy geophytes were seldom preserved archaeologically. We report evidence for geophyte exploitation by early humans from at least 170,000 years ago. Charred rhizomes from Border Cave, South Africa, were identified to the genus *Hypoxis* L. by comparing the morphology and anatomy of ancient and modern rhizomes. *Hypoxis angustifolia* Lam., the likely taxon, proliferates in relatively well-watered areas of sub-Saharan Africa and in Yemen, Arabia. In those areas and possibly farther north during moist periods, *Hypoxis* rhizomes would have provided reliable and familiar carbohydrate sources for mobile groups.

## Bibel

FAIGENBAUM-GOLOVIN 2020

Shira Faigenbaum-Golovin, Arie Shaus, Barak Sober, Eli Turkel, Eli Piasezky & Israel Finkelstein, *Algorithmic handwriting analysis of the Samaria inscriptions illuminates bureaucratic apparatus in biblical Israel*. [PLoS ONE 15 \(2020\), e227452](#). DOI:10.1371/journal.pone.0227452.

[pone15-e0227452-Supplement.pdf](#)

Past excavations in Samaria, capital of biblical Israel, yielded a corpus of Hebrew ink on clay inscriptions (ostraca) that documents wine and oil shipments to the palace from surrounding localities. Many questions regarding these early 8th century BCE texts, in particular the location of their composition, have been debated. Authorship in countryside villages or estates would attest to widespread literacy in a relatively early phase of ancient Israel's history. Here we report an algorithmic investigation of 31 of the inscriptions. Our study establishes that they were most likely written by two scribes who recorded the shipments in Samaria. We achieved our results through a method comprised of image processing and newly developed statistical learning techniques. These outcomes contrast with our previous Results, which indicated widespread literacy in the kingdom of Judah a century and half to two centuries later, ca. 600 BCE.

KNOHL 2020

Israel Knohl, *Solving the Mystery of Genesis 49:10b? The Numerical Key*. [Vetus Testamentum \(2020\), preprint, 1–3](#). DOI:10.1163/15685330-12341399.

The four-words phrase **עַד כִּי יבֹא שִׁלָּה** in Gen 49:10b is a famous crux interpretum. I argue that the poem now contained in Genesis 49:2-27 had an elaborate numerical structure of verses, cola and words and that this structure can be fully appreciated only when we read this phrase as a five-words one: **עַד כִּי יבֹא שִׁי לָהּ**.

## Islam

BARNABAS 1907

LONSDALE & LAURA RAGG (Hrsg.), *The Gospel of Barnabas, Edited and translated from the Italian Ms. in the Imperial Library at Vienna*. (Whitefish 2010). Reprint of the first edition from Clarendon: Oxford 1907.

Many references to Mohammed and Ismael. As in the Qoran Jesus is a fully human prophet and was not crucified.

## Klima

CLARK 2020

Peter U. Clark, Feng He, Nicholas R. Golledge, Jerry X. Mitrovica, Andrea Dutton, Jeremy S. Hoffman & Sarah Dendy, *Oceanic forcing of penultimate deglacial and last interglacial sea-level rise*. [nature 577 \(2020\), 660–664](#).

Sea-level histories during the two most recent deglacial–interglacial intervals show substantial differences<sup>1–3</sup> despite both periods undergoing similar changes in global mean temperature<sup>4,5</sup> and forcing from greenhouse gases<sup>6</sup>. Although the last interglaciation (LIG) experienced stronger boreal summer insolation forcing than the present interglaciation<sup>7</sup>, understanding why LIG global mean sea level may have been six to nine metres higher than today has proven particularly challenging<sup>2</sup>. Extensive areas of polar ice sheets were grounded below sea level during both glacial and interglacial periods, with grounding lines and fringing ice shelves extending onto continental shelves<sup>8</sup>. This suggests that oceanic forcing by subsurface warming may also have contributed to ice-sheet loss<sup>9–12</sup> analogous to ongoing changes in the Antarctic<sup>13,14</sup> and Greenland<sup>15</sup> ice sheets. Such forcing would have been especially effective during glacial periods, when the Atlantic Meridional Overturning Circulation (AMOC) experienced large variations on millennial timescales<sup>16</sup>, with a reduction of the AMOC causing subsurface warming throughout much of the Atlantic basin<sup>9,12,17</sup>. Here we show that greater subsurface warming induced by the longer period of reduced AMOC during the penultimate deglaciation can explain the more-rapid sealevel rise compared with the last deglaciation. This greater forcing also contributed to excess loss from the Greenland and Antarctic ice sheets during the LIG, causing global mean sea level to rise at least four metres above modern levels. When accounting for the combined influences of penultimate and LIG deglaciation on glacial isostatic adjustment, this excess loss of polar ice during the LIG can explain much of the relative sea level recorded by fossil coral reefs and speleothems at intermediate- and far-field sites.

## HULL 2020

Pincelli M. Hull et al., *On impact and volcanism across the Cretaceous–Paleogene boundary*. [science](#) **367** (2020), 266–272.

[s367-0266-Supplement.pdf](#)

The cause of the end-Cretaceous mass extinction is vigorously debated, owing to the occurrence of a very large bolide impact and flood basalt volcanism near the boundary. Disentangling their relative importance is complicated by uncertainty regarding kill mechanisms and the relative timing of volcanogenic outgassing, impact, and extinction. We used carbon cycle modeling and paleotemperature records to constrain the timing of volcanogenic outgassing. We found support for major outgassing beginning and ending distinctly before the impact, with only the impact coinciding with mass extinction and biologically amplified carbon cycle change. Our models show that these extinction-related carbon cycle changes would have allowed the ocean to absorb massive amounts of carbon dioxide, thus limiting the global warming otherwise expected from postextinction volcanism.

Pincelli M. Hull, André Bornemann, Donald E. Penman, Michael J. Henehan, Richard D. Norris, Paul A. Wilson, Peter Blum, Laia Alegret, Sietske J. Batenburg, Paul R. Bown, Timothy J. Bralower, Cecile Cournede, Alexander Deutsch, Barbara Donner, Oliver Friedrich, Sofie Jehle, Hojung Kim, Dick Kroon, Peter C. Lippert, Dominik Lorocho, Iris Moebius, Kazuyoshi Moriya, Daniel J. Peppe, Gregory E. Ravizza, Ursula Röhl, Jonathan D. Schueth, Julio Sepúlveda, Philip F. Sexton, Elizabeth C. Sibert, Kasia K. Śliwińska, Roger E. Summons, Ellen Thomas, Thomas Westerhold, Jessica H. Whiteside, Tatsuhiko Yamaguchi & James C. Zachos