

References

Amerika

O'BRIEN 2014

Michael J. O'Brien et al., Dennis Stanford & Bruce Bradley, *The origins of the first settlers in the Americas*. [Antiquity 88 \(2014\), 606–624](#).

[Antiquity088-0606-Supplement.pdf](#)

The recent proposal that North America was first settled by Upper Palaeolithic people from Europe who crossed the Atlantic along the edge of the Arctic ice sheet has generated considerable controversy. Here Michael O'Brien and colleagues challenge the evidence that has been presented in support of that hypothesis. There follows a response by Dennis Stanford and Bruce Bradley, and a closing reply from O'Brien et al.

Keywords: Atlantic, Last Glacial Maximum, Solutrean, Clovis, colonisation, stone tool technology

On thin ice: problems with Stanford and Bradley's proposed Solutrean colonisation of North America; Michael J. O'Brien, Matthew T. Boulanger, Mark Collard, Briggs Buchanan, Lia Tarle, Lawrence G. Straus & Metin I. Eren

Reply to O'Brien et al.; Dennis Stanford & Bruce Bradley

Solutreanism; Michael J. O'Brien, Matthew T. Boulanger, Mark Collard, Briggs Buchanan, Lia Tarle, Lawrence G. Straus & Metin I. Eren

WESTLEY 2008

Kieran Westley & Justin Dix, *The Solutrean Atlantic Hypothesis: A View from the Ocean*. [Journal of the North Atlantic 1 \(2008\), 85–98](#).

One current hypothesis for the Pleistocene peopling of the Americas invokes a dispersal by European huntergatherers along a biologically productive "corridor" situated on the edge of the sea-ice that filled the Atlantic Ocean during the Last Glacial Maximum (LGM). In this paper, we assert that critical paleoceanographic data underpinning this hypothesis has not yet been examined in sufficient detail. To this end, we present data which show that the corridor may not have existed, and that, if it did, its suitability as a migration route is highly questionable. In addition to demonstrating that the hypothesized migration was unlikely, this highlights the importance of integrating paleoceanographic and archaeological data in studies of paleo-coastal societies.

Anthropologie

BALTER 2014

Michael Balter, *The killing ground*. [science 344 \(2014\), 1080–1083](#).

Schöningen, Germany: Clues from a German coal mine show how early hunters lived, 300,000 years ago, and how their prey died.

ROCHE 1989

Hélenè Roche, *Technological Evolution in Early Hominids*. [Ossa 14 \(1989\), 97–98](#).

The Discovery of several new archaeological sites on the Western side of Lake Turkana (Kenya) and in the Western Rift Valley (Uganda) provides new data on the making of stone tools within the period between 2.5 and 1.5 myr. A significant technological change seems to occur at around 2 myr.

Keywords: technology, stone tools, lower Pleistocene, East Africa.

Bibel

BERMAN 2013

Joshua Berman, *Double Meaning in the Parable of the Poor Man's Ewe (2 Sam 12: 1–4)*. [Journal of Hebrew Scriptures](#) **13** (2013), Article 14, 1–17.

The conventional approach maintains that the purpose of the parable is to elicit indignation from the king. Yet surely, if this were the only aim the author could have crafted a simpler story, without the wayfarer, in which the rich man merely consumed the ewe to satisfy his own appetite. The conventional approach offers no satisfying explanation as to why the rich man emerges as a complex figure—as one who seeks to do good, but out of a warped sense of responsibility winds up committing an invidious injustice. By appreciating the complexity of the rich man's behavior and “pedantically” searching for a parallel in the surrounding narrative, we learn not only to identify the equivalence in the character of David. We also come to an appreciation of the complex motivations that lead to the murder of Uriah, of how the reactions of guilt and responsibility—appropriate in proper measure—can assume such overwhelming proportions that they themselves become the agents of destruction.

MONSON 2000

John Monson, *The New 'Ain Dara Temple, Closest Solomonic Parallel*. [Biblical Archaeology Review](#) **26** (2000), iii, 20–35.

A stunning parallel to Solomon's Temple has been discovered in northern Syria. The temple at 'Ain Dara has far more in common with the Jerusalem Temple described in the Book of Kings than any other known building. Yet the newly excavated temple has received almost no attention in this country, at least partially because the impressive excavation report, published a decade ago, was written in German by a Syrian scholar and archaeologist.

Chronologically, the 'Ain Dara temple forms a bridge in the temple sequence between the Late Bronze Age (1500–1200 B.C.E.) temple at Hazor (Area H) and the eighth-century B.C.E. Iron Age temple at Tell Ta'yinat. The 'Ain Dara temple corroborates the date of the Solomonic Temple to the early first millennium with a high degree of probability, regardless of the date assigned to the composition of the Biblical text. The Jerusalem Temple thus takes its place comfortably within the typology of Iron Age temples despite the dearth of architectural remains in Jerusalem. Such a broad-based typology is hard to overturn. As it is described in the Hebrew Bible, the Temple of Solomon is a typical hybrid temple belonging to the long-room Syrian type.

Simply put, the date, size and numerous features of the 'Ain Dara temple provide new evidence that chronologically anchors the Temple of Solomon in the cultural traditions of the tenth century B.C.E. The 'Ain Dara temple thus corroborates the traditional date of Solomon's renowned shrine.

TOV 2014

Emanuel Tov, *Searching for the “Original” Bible*. [Biblical Archaeology Review](#) **40** (2014), iv, 48–53, 68.

More than 200 Biblical texts written in Hebrew were discovered among the Dead Sea Scrolls. How do these ancient Biblical texts compare with the Masoretic Text and the Greek Septuagint in scholars' search for the most authoritative text of the Hebrew Bible?

Grundlagen

HEGGARTY 2014

Paul Heggarty, *Prehistory by Bayesian phylogenetics? The state of the art on Indo-European origins*. *Antiquity* **88** (2014), 566–577.

Bayesian analysis has come to be widely used in archaeological chronologies and has been a regular feature of recent articles in *Antiquity*. Its application to linguistic prehistory, however, has proved controversial, in particular on the issue of Indo-European origins. Dating and mapping language distributions back into prehistory has an inevitable fascination, but has remained fraught with difficulty. This review of recent studies highlights the potential of increasingly sophisticated Bayesian phylogenetic models, while also identifying areas of concern, and ways in which the models might be refined to address them. Notwithstanding these remaining limitations, in the Indo-European case the results from Bayesian phylogenetics continue to reinforce the argument for an Anatolian rather than a Steppe origin.

Keywords: Indo-European, language prehistory, Bayesian analysis, phylogenetics, farming/sol/language dispersals

Isotope

STYRING 2014

Amy K. Styring, Rebecca A. Fraser, Amy Bogaard & Richard P. Evershed, *The effect of manuring on cereal and pulse amino acid $\delta^{15}N$ values*. *Phytochemistry* **102** (2014), 40–45.

Phytochemistry102-0040-Supplement.pdf

Amino acid d15N values of barley (*Hordeum vulgare*) and bread wheat (*Triticum aestivum*) grains and rachis and broad bean (*Vicia faba*) and pea (*Pisum sativum*) seeds, grown in manured and unmanured soil at the experimental farm stations of Rothamsted, UK and Bad Lauchstädt, Germany, were determined by GC-C-IRMS. Manuring was found to result in a consistent 15N-enrichment of cereal grain amino acid d15N values, indicating that manuring did not affect the metabolic routing of nitrogen (N) into cereal grain amino acids. The increase in cereal grain d15N values with manuring is therefore due to a 15N-enrichment in the d15N value of assimilated inorganic-N. Greater variation was observed in the 15N-enrichment of rachis amino acids with manuring, possibly due to enhanced sensitivity to changes in growing conditions and higher turnover of N in rachis cells compared to cereal grains. Total amino acid d15N values of manured and unmanured broad beans and peas were very similar, indicating that the legumes assimilated N₂ from the atmosphere rather than N from the soil, since there was no evidence for routing of 15N-enriched manure N into any of the pulse amino acids. Crop amino acid d15N values thus provide insights into the sources of N assimilated by non N₂-fixing and N₂-fixing crops grown on manured and unmanured soils, and reveal an effect of manure on N metabolism in different crop species and plant parts.

Keywords: *Hordeum vulgare* | *Triticum aestivum* | *Vicia faba* | *Pisum sativum* | Amino acids | Nitrogen | d15N values | Manure

TOUZEAU 2014

Alexandra Touzeau et al., *Diet of ancient Egyptians inferred from stable isotope systematics*. [Journal of Archaeological Science](#) **46** (2014), 114–124.

JAS046-0114-Supplement.pdf

Alexandra Touzeau, Romain Amiot, Janne Blichert-Toft, Jean-Pierre Flandrois, François Fourel, Vincent Grossi, François Martineau, Pascale Richardin & Christophe Lécuyer

Carbon, nitrogen and sulfur stable isotope compositions were measured in hard and soft tissues from Egyptian mummies of humans and animals in order to track the diet of ancient Egyptians from 5500 to 1500 years B.P. The carbon isotope ratios of bone apatite ($\delta^{13}\text{C}_{\text{bo}} = -14.3 \pm 0.9\text{‰}$) and hair protein ($\delta^{13}\text{C}_{\text{h}} = -19.9\text{‰}$) are compatible with a diet based almost exclusively on C3-derived food (proportion of C4 < 10%). Less negative carbon isotope ratios of enamel ($\delta^{13}\text{C}_{\text{en}} = -11.6 \pm 0.7\text{‰}$) relative to bones from the same mummies could be the result of differences in the chemical microenvironment in which mineralization occurred, as well as of differences in diet between children and adults, in particular through the consumption of milk or millet gruel during infancy and childhood. High values of nitrogen isotope ratios for hair protein ($\delta^{15}\text{N}_{\text{h}} = 9.1\text{‰}$ – 15.5‰) are ascribed to aridity rather than fish consumption because the $\delta^{34}\text{S}$ values of human hair are lower than those measured in Nile perch scales. Except for Coptic mummies, the constancy of $\delta^{13}\text{C}_{\text{bo}}$ and $\delta^{13}\text{C}_{\text{en}}$ over a duration of ≈ 3000 years is striking considering the various political, technological, and cultural changes that impacted the Egyptian civilization during this time interval.

Keywords: Ancient Egypt | Tooth | Hair | Carbon | Nitrogen | Sulfur

Judentum

DAVIES 2014

Gwyn Davies, *The Masada Siege—From the Roman Viewpoint*. [Biblical Archaeology Review](#) **40** (2014), iv, 28–36, 70–71.

The Roman siege works at Masada is the most complete surviving siege system of the ancient world. The Romans consciously used psychological warfare to impress upon the Jewish rebels that their situation was hopeless. In the end, a siege ramp gave the Romans access to the rebels on top, leading to their decision to commit mass suicide rather than surrender.

Klima

LEV-YADUN 2010

S. Lev-Yadun, D. S. Lucas & M. Weinstein-Evron, *Modeling the demands for wood by the inhabitants of Masada and for the Roman siege*. [Journal of Arid Environments](#) **74** (2010), 777–785.

Modeling the demands for wood, especially firewood, for the inhabitants of the unique desert fortress of Masada during the major period of its occupation (beginning about 150 B.C.E. and ending with its fall after the Roman siege in 73 C.E.) is based on the well-documented history of the site, of the number of inhabitants in each phase of occupation, and the current demand for firewood in traditional societies. The previously analyzed ancient botanical remains from Masada provide base-line data of the types of wood used. We have concluded that

when the Roman siege began in C.E. 73, the vicinity of Masada would have been denuded of trees and shrubs as a result of ca. 225 years of occupation. Therefore, the Tamarix wood used to construct the upper parts of the Roman siege rampart was probably not local. The isotopic composition of the Tamarix beams probably indicates that they were imported from a different region, such as the more humid and cooler river banks east of the Dead Sea, rather than the result of climate change as previously proposed.

Keywords: Dead Sea | Desert | Environmental impact | Firewood

SCHROEDER 2014

Dustin M. Schroeder, Donald D. Blankenship, Duncan A. Young & Enrica Quartini, *Evidence for elevated and spatially variable geothermal flux beneath the West Antarctic Ice Sheet*. *PNAS* **111** (2014), 9070–9072.

pnas111-09070-Supplement.txt

Heterogeneous hydrologic, lithologic, and geologic basal boundary conditions can exert strong control on the evolution, stability, and sea level contribution of marine ice sheets. Geothermal flux is one of the most dynamically critical ice sheet boundary conditions but is extremely difficult to constrain at the scale required to understand and predict the behavior of rapidly changing glaciers. This lack of observational constraint on geothermal flux is particularly problematic for the glacier catchments of the West Antarctic Ice Sheet within the low topography of the West Antarctic Rift System where geothermal fluxes are expected to be high, heterogeneous, and possibly transient. We use airborne radar sounding data with a subglacial water routing model to estimate the distribution of basal melting and geothermal flux beneath Thwaites Glacier, West Antarctica. We show that the Thwaites Glacier catchment has a minimum average geothermal flux of $\approx 114 \pm 10$ mW/m² with areas of high flux exceeding 200 mW/m² consistent with hypothesized rift-associated magmatic migration and volcanism. These areas of highest geothermal flux include the westernmost tributary of Thwaites Glacier adjacent to the subaerial Mount Takahe volcano and the upper reaches of the central tributary near the West Antarctic Ice Sheet Divide ice core drilling site.

subglacial hydrology | ice-penetrating radar

WHITE 2014

Chantel E. White, Meredith S. Chesson & R. Thomas Schaub, *A recipe for disaster: emerging urbanism and unsustainable plant economies at Early Bronze Age Ras an-Numayra, Jordan*. *Antiquity* **88** (2014), 363–377.

The intensification of agriculture as farming communities grew in size did not always produce a successful and sustainable economic base. At Ras an-Numayra on the Dead Sea Plain, a small farming community of the late fourth millennium BC developed a specialised plant economy dependent on cereals, grapes and flax. Irrigation in this arid environment led to increased soil salinity while recurrent cultivation of flax may have introduced the fungal pathogen responsible for flax wilt. Faced with declining yields, the farmers may have further intensified their irrigation and cultivation schedules, only to exacerbate the underlying problems. Thus specialised crop production increased both agricultural risk and vulnerability to catastrophe, and Ras an-Numayra, unlike other sites in the region, was abandoned after a relatively short occupation.

Keywords: Jordan, Dead Sea Plain, Early Bronze Age, agricultural intensification, irrigation, salinisation, flax wilt

YAKIR 1994

Dan Yakir, Arie Issar, Joel Gat, Eilon Adar, Peter Trimborn & Joseph Lipp, ^{13}C and ^{18}O of wood from the Roman siege rampart in Masada, Israel (AD 70–73), *Evidence for a less arid climate for the region. Geochimica et Cosmochimica Acta* **58** (1994), 3535–3539.

The isotopic ratios $^{13}\text{C}/^{12}\text{C}$ and $^{18}\text{O}/^{16}\text{O}$ of cellulose from tamarix trees which were used by the Roman army as a groundwork of the siege-rampart of Masada (AD 70–73) were compared with ratios measured in present-day tamarix trees growing in the Masada region and in central Israel. The ancient tamarix cellulose is depleted in both ^{13}C and ^{18}O compared to cellulose from trees growing in the Masada region today. Similar trends were observed on comparing modern tamarix trees growing in the Negev Desert with those growing in the temperate climate of central Israel. Considering the factors that can contribute to the observed changes in isotopic composition, we conclude that the ancient trees enjoyed less arid environmental conditions during their growth compared to contemporary trees in this desert region. This report demonstrates the potential in using combined ^{18}O and ^{13}C analyses of archeological plant material as independent indication of regional climatic change in desert areas (where conventional isotopic analyses, such as in tree rings, are impractical).

Neolithikum

PASCHOU 2014

Peristera Paschou et al., *Maritime route of colonization of Europe. PNAS* **111** (2014), 9211–9216.

Peristera Paschou, Petros Drineas, Evangelia Yannaki, Anna Razou, Katerina Kanaki, Fotis Tsetsos, Shanmukha Sampath Padmanabhuni, Manolis Michalodimitrakis, Maria C. Renda, Sonja Pavlovic, Achilles Anagnostopoulos, John A. Stamatoyannopoulos, Kenneth K. Kidd & George Stamatoyannopoulos

The Neolithic populations, which colonized Europe approximately 9,000 y ago, presumably migrated from Near East to Anatolia and from there to Central Europe through Thrace and the Balkans. An alternative route would have been island hopping across the Southern European coast. To test this hypothesis, we analyzed genome-wide DNA polymorphisms on populations bordering the Mediterranean coast and from Anatolia and mainland Europe. We observe a striking structure correlating genes with geography around the Mediterranean Sea with characteristic east to west clines of gene flow. Using population network analysis, we also find that the gene flow from Anatolia to Europe was through Dodecanese, Crete, and the Southern European coast, compatible with the hypothesis that a maritime coastal route was mainly used for the migration of Neolithic farmers to Europe.

STRIEN 2005

Hans-Christoph Strien, *Familientraditionen in der bandkeramischen Siedlung bei Vaihingen/Enz*. In: JENS LÜNING, CHRISTIANE FRIRDICH & ANDREAS ZIMMERMANN (Hrsg.), *Die Bandkeramik im 21. Jahrhundert, Symposium in der Abtei Brauweiler bei Köln vom 16. 9. – 19. 9. 2002*. Internationale Archäologie: Arbeitsgemeinschaft, Symposium, Tagung, Kongress 7 (Rahden/Westf. 2005), 189–197.

Besonders bemerkenswert ist die große Stabilität der Gruppen. Sie werden erstmals anhand weniger Scherben in Phase 2A erkennbar, mit der Vergrößerung

der Siedlungsfläche in Phase 2B1 sind sie voll ausgeprägt. Zwar beginnen sie ab Phase 3, stärker in Phase 4 sich aufzulösen, sind aber immer noch feststellbar. Die Hofgruppen sind folglich über 8–10 Generationen oder anderthalb bis zwei Jahrhunderte stabil. Bei solch langen Traditionslinien wird man an eine relativ konservative Gesellschaft denken müssen, bei der die jeweils ältere Generation sorgsam darauf achtete, dass die Familientraditionen eingehalten und keine Elemente anderer Gruppen – etwa durch Einheirat – eingebracht wurden. Allerdings gibt es auch Ausnahmen von dieser Regel. [...] Man wird hier wohl an eine Vererbung außerhalb der üblichen Regeln – etwa wegen des Fehlens direkter Nachkommen der verstorbenen Hofbewohner – denken müssen.

Religion

MENOTTI 2014

Francesco Menotti, Benjamin Jennings & Hartmut Gollnisch-Moos, 'Gifts for the gods', *Lake-dwellers' macabre remedies against floods in the Central European Bronze Age*. [Antiquity 88 \(2014\), 456–469](#).

The lake-dwellings of the Circum-Alpine region have long been a rich source of detailed information about daily life in Bronze Age Europe, but their location made them vulnerable to changes in climate and lake level. At several Late Bronze Age examples, skulls of children were found at the edge of the lake settlement, close to the encircling palisade. Several of the children had suffered violent deaths, through blows to the head from axes or blunt instruments. They do not appear to have been human sacrifices, but the skulls may nonetheless have been offerings to the gods by communities faced with the threat of environmental change.

Keywords: Central Europe, Federsee, Lake Nussbaum, Late Bronze Age, lake-dwellings, human sacrifice, offerings, environmental change

Story or Book

DALEY 2014

Brian E. Daley, *The Evil Inclination*. [Biblical Archaeology Review 40 \(2014\), iv, 64–65](#).

Sinning in the Hebrew Bible: How the Worst Stories Speak for Its Truth, by Alan F. Segal (Columbia University Press, 2012), 296 pp., \$29.50 (paperback)

Sinning in the Hebrew Bible, the posthumously published volume by Alan Segal (1945–2011), professor of religion and Jewish studies at Barnard College, is really not a treatise on Biblical views of human wickedness so much as a gracefully written introduction to the narrative contents of the Hebrew Bible. It could serve well as a concise and readable text for an introductory course on the Hebrew Bible at the collegiate or graduate level.

DEVER 2014

William G. Dever & Aaron Burke, *Divided Kingdom, united Critics*. [Biblical Archaeology Review 40 \(2014\), iv, 37–41, 71](#).

Israel Finkelstein, *The Forgotten Kingdom: The Archaeology and History of Northern Israel*, Society of Biblical Literature, Ancient Near East Monographs 5 (Atlanta: Society of Biblical Literature, 2013), 210 pp., \$39.95 (hardcover), \$24.95 (paperback)

The Forgotten Kingdom by Israel Finkelstein traces the development of the northern kingdom of Israel to an earlier time associated with the reign of King

Saul. The work, recently awarded the prestigious Delalande-Guérineau prize, is critically reviewed by two prominent archaeologists.

Finkelstein was once an innovative scholar, pioneering new methods; now he has become a showman. A tragic waste of talent, energy and charm—and a detriment to our discipline. This book is such a good read, so drama-illed, so clever that it took me—a specialist—a bit of time to see through it.

What’s going on here? It took me a while to figure it out. What Finkelstein is doing is gradually distancing himself from the extremes of his low chronology—without ever admitting he is doing so—and counting on the likelihood that readers will not check his “facts.” Even he now realizes that a Judahite state did exist in the tenth century B.C.E. and that it could have extended its rule to the north. He cannot bring himself to admit that David and Solomon were real tenth-century kings since he is on record as denying the existence of any Judahite state before the eighth century B.C.E. (or lately, the ninth century). So he does an end run around the impasse by distracting attention to their predecessor Saul as king!

This is an important starting point for Finkelstein’s entire premise, namely the independent character of the northern kingdom of Israel. The underlying goal is to articulate an evolutionary trajectory for Iron Age political organization in the northern highlands that is independent of the traditional understanding of the northern kingdom’s relationship to a United Monarchy of Israel, as depicted in the Biblical narrative, which is centered instead on Jerusalem. Finkelstein reconstructs a so-called Shechem polity during the Late Bronze Age, which is intended to reveal a long historical trajectory of political and socioeconomic developments that evolves into the Iron Age kingdom of Israel, long before the appearance of the southern kingdom of Judah.

KISER 2014

Barbara Kiser, *How Not to Be Wrong: The Power of Mathematical Thinking*. [nature](#) **510** (2014), 339.

How Not to Be Wrong: The Power of Mathematical Thinking. Jordan Ellenberg. PENGUIN (2014)

Mathematicians from Charles Lutwidge Dodgson to Steven Strogatz have celebrated the power of mathematics in life and the imagination. In this hugely enjoyable exploration of everyday maths as “an atomic-powered prosthesis that you attach to your common sense”, Jordan Ellenberg joins their ranks. Ellenberg, an academic and Slate’s ‘Do the Math’ columnist, explains key principles with erudite gusto — whether poking holes in predictions of a US “obesity apocalypse”, or unpicking an attempt by psychologist B.F. Skinner to prove statistically that Shakespeare was a dud at alliteration.

SHEA 2012

John J. Shea, *The Solutrean-Clovis Connection: Another Look*. [Evolutionary Anthropology](#) **21** (2012), 293–295.

Across Atlantic Ice: The Origins of America’s Clovis Culture, By Dennis J. Stanford and Bruce A. Bradley (2012), Berkeley: University of California Press. 336 pages. \$34.95 (hardback). ISBN:978-0-520-22783-5.

I resolved to keep as much distance between myself and this issue as possible. I recently changed my mind about this. [...] One could understand such preemptive rejection of a hypothesis if it proposed a scenario with no parallels in other areas of prehistory, used unconventional analytical methods to arrive at its conclusions, or its authors lacked appropriate scientific credentials. But none of these is the case with Across Atlantic Ice.

Across Atlantic Ice is an excellent example of hypothesis-building in the best tradition of processual archeology. It challenges American archeology in a way that will require serious research by its opponents. It also challenges European Paleolithic archeologists to think a bit more optimistically about Ice Age Europeans. Modern-day Europeans may no longer look west and wonder what is on the other side of the ocean, but their recent ancestors did, and they did something about it. Can we imagine our distant ancestors were any less curious about their world?

Finally, for professional prehistorians, Across Atlantic Ice raises the important issue of how we deal with drowned landscapes. Our models of past human behavior have to be grounded in observations of presentday human behavior, and all presentday humans who live near coasts exploit coastal and marine resources. Yet our models of past human behavior also have to yield testable predictions about what we should expect to find in our archeological excavations.