

Literatur

Aktuell

BURROWS 2013

Malcolm Burrows & Gregory Sutton, *Interacting Gears Synchronize Propulsive Leg Movements in a Jumping Insect*. [science](#) **341** (2013), [1254–1256](#).

[s341-1254-Supplement.pdf](#), [s341-1254-Supplement1.mov](#), [s341-1254-Supplement2.mov](#), [s341-1254-Supplement3.mov](#)

Gears are found rarely in animals and have never been reported to intermesh and rotate functionally like mechanical gears. We now demonstrate functional gears in the ballistic jumping movements of the flightless planthopper insect *Issus*. The nymphs, but not adults, have a row of cuticular gear (cog) teeth around the curved medial surfaces of their two hindleg trochantera. The gear teeth on one trochanter engaged with and sequentially moved past those on the other trochanter during the preparatory cocking and the propulsive phases of jumping. Close registration between the gears ensured that both hindlegs moved at the same angular velocities to propel the body without yaw rotation. At the final molt to adulthood, this synchronization mechanism is jettisoned.

SMITH 2013

Oliver D. Smith, *Genetics Does Not Support “Out of Africa”*. ([Unpublished 2013](#)).

The biological anthropologist John Relethford cautions that genetics is indeterminate and can be used to support either Out of Africa or Multiregionalism (Relethford, 1999). One model isn't supported over the other by genetics. Despite this, Out of Africa proponents continue to cherry pick molecular data that support their model, when at the same time, genetics can be used to support Multiregionalism. Only the fossil record can settle the human origins debate.

Anthropologie

ADCOCK 2001

Gregory J. Adcock et al., *Mitochondrial DNA sequences in ancient Australians*: [PNAS](#) **98** (2001), [537–542](#).

Gregory J. Adcock, Elizabeth S. Dennis, Simon Easta, Gavin A. Huttley, Lars S. Jermiin, W. James Peacock & Alan Thorne

DNA from ancient human remains provides perspectives on the origin of our species and the relationship between molecular and morphological variation. We report analysis of mtDNA from the remains of 10 ancient Australians. These include the morphologically gracile Lake Mungo 3 [60 thousand years (ka) before present] and three other gracile individuals from Holocene deposits at Willandra Lakes (<10 ka), all within the skeletal range of living Australians, and six Pleistocene-yearly Holocene individuals (15 to <8 ka) from Kow Swamp with robust morphologies outside the skeletal range of contemporary indigenous Australians. Lake Mungo 3 is the oldest (Pleistocene) “anatomically modern” human from

whom DNA has been recovered. His mtDNA belonged to a lineage that only survives as a segment inserted into chromosome 11 of the nuclear genome, which is now widespread among human populations. This lineage probably diverged before the most recent common ancestor of contemporary human mitochondrial genomes. This timing of divergence implies that the deepest known mtDNA lineage from an anatomically modern human occurred in Australia; analysis restricted to living humans places the deepest branches in East Africa. The other ancient Australian individuals we examined have mtDNA sequences descended from the most recent common ancestor of living humans. Our results indicate that anatomically modern humans were present in Australia before the complete fixation of the mtDNA lineage now found in all living people. Sequences from additional ancient humans may further challenge current concepts of modern human origins.

RELETHFORD 1995

John H. Relethford & Henry C. Harpending, *Ancient Differences in Population Size Can Mimic a Recent African Origin of Modern Humans*. *Current Anthropology* **36** (1995), 667–674.

A further complication is that effective population sizes are always implicitly assumed to be equal in genetic-distance analysis. We provide an example here to illustrate this problem using a simple model. In this model, genetic distances are predicted on the basis of effective population size and the number of generations since founding. Given three populations all arising from a common founding population 1,000 generations ago and having effective population sizes equal to 3,000, the expected genetic distances between them are equal, such that a dendrogram based on these distances will reveal three equidistant populations with a common root. In other words, the distances and the dendrogram will provide an accurate reconstruction of population history. Now, suppose that two of the populations (1 and 2) had a constant effective size of 4,000 and the third population (3) had a constant effective size of 1,000. The expected genetic distances will be different—populations 1 and 2 will be more similar, and population 3 will be different because of the greater genetic drift (random change in allele frequencies from one generation to the next as a consequence of sampling variation) associated with a smaller population size.

RELETHFORD 1999

John H. Relethford, *Models, Predictions, and the Fossil Record of Modern Human Origins*. *Evolutionary Anthropology* **8** (1999), 7–10.

What does this all mean? This simple example shows clearly that, given enough time, the accumulated ancestry of any population will be dominated by the largest population. This is intuitive: The larger the population, the greater the proportion of genes. This principle has a major implication for the analysis of hominid fossil samples across time. Many genetic studies have demonstrated that the long-term population size of Africa is larger than that of any other region.^{4,18} A larger African population is also expected throughout most of prehistory, based on ecological arguments.^{19,20} It is important to keep in mind that this model only makes the assumption that, over time, Africa was the largest. While archeological evidence suggests times during which parts of Africa were relatively depopulated,²¹ the genetic evidence supports the hypothesis that the long-term average population was largest in Africa. If the African population was the largest, then even under a model of low-level gene flow it would exert the greatest genetic impact. A comparison across many generations would show this effect. The more recent samples would all be more similar to earlier samples in Africa than to samples from anywhere else. While these results might seem paradoxical, there is no mystery. The

common assumption of greater similarity within regions over long periods confuses per-generation endogamy with accumulated ancestry.

RELETFORD 2001

John H. Relethford, *Absence of Regional Affinities of Neandertal DNA With Living Humans Does Not Reject Multiregional Evolution. American Journal of Physical Anthropology* **115** (2001), 95–98.

The recent extraction of mitochondrial DNA sequences from three European Neandertal fossils has led many to the conclusion that ancient DNA analysis supports the African replacement model of modern human origins and rejects models of multiregional evolution that propose some Neandertal ancestry in living humans. This conclusion is based, in part, on the lack of regional affinity of Neandertal DNA to that from living Europeans. Consideration of migration matrix models shows that this conclusion is premature, since under a model of interregional gene flow we expect to see similar levels of Neandertal ancestry in all contemporary regions, and living Europeans should not necessarily show closer affinity. The absence of regional affinity in Neandertal DNA does not distinguish between replacement and multiregional models.

Keywords: Neandertal; mitochondrial DNA; modern human origins; gene flow

RELETFORD 2001

John H. Relethford, *Ancient DNA and the origin of modern humans. PNAS* **98** (2001), 390–391.

The modern human origins debate can be informed by genetic data, both living and ancient, but can only be resolved by also considering the fossil and archaeological evidence. The picture presented by Adcock et al. suggests that modern human origins were more complicated than once envisioned.

WEAVER 2005

Timothy D. Weaver & Charles C. Roseman, *Ancient DNA, Late Neandertal Survival, and Modern-Human—Neandertal Genetic Admixture. Current Anthropology* **46** (2005), 677–683.

The significance of ancient Neandertal mtDNA for resolving the fate of Neandertals increases greatly when considered in light of models for modern human origins derived from archaeology. On the basis of mtDNA, if Neandertals survived late in Europe, their per generation contribution to early modern human populations must have been fairly small (<0.2%) or we would find Neandertal mtDNA lineages in living humans. If the human population size remained constant and small until very recently, then the total, accumulated Neandertal admixture could still have been large, but if the human population started to grow rapidly from a small size about 40,000 years ago, then even a very small Neandertal genetic contribution to modern human populations can be ruled out. Archaeology tends to support the rapid population growth model (Klein et al. 2004, Stiner et al. 1999), as does living human mtDNA (Excoffier and Schneider 1999, Ingman et al. 2000). Other genetic regions are more equivocal about the timing and magnitude of population growth (Harpending and Rogers 2000, Ptak and Przeworski 2002, Wall and Przeworski 2000), but recent studies of SNPs and microsatellites appear to be reaching a consensus consistent with the results for mtDNA (Marth et al. 2004, Zhivotovsky, Rosenberg, and Feldman 2003). Our results stress the importance of fully integrating archaeological, fossil, and genetic evidence in investigations of modern human origins.

Bibel

CLINES 1976

David Clines, *New Directions in Pooch Studies, Überlieferungs- und traditions-geschichtliche Studien zum Pu-Buch*. In: *On the Way to the Postmodern, Old Testament Essays, 1967–1998, Vol. 2*. Journal for the Study of the Old Testament Supplement 293 (Sheffield 1998), 830–839.

CLINES 2006

David Clines, *Translating Psalm 23*. In: ROBERT REZETKO, TIMOTHY H. LIM & W. BRIAN AUCKER (Hrsg.), *Reflection and Refraction, Studies in Biblical Historiography in Honour of A. Graeme Auld*. Vetus Testamentum Supplements 113 (Leiden 2006), 67–80.

Finally, I make bold to offer my own proposed version of the psalm, with a few footnotes explaining choices I have made in addition to those mentioned above.

1 Yahweh is a shepherd to me; therefore there is nothing I lack.

2 In grassy pastures he lets me lie, chewing the cud; down to quiet waters he leads me;

3 he revives my life; he leads me by the right paths— all to uphold his repute.

4 Even when I walk through a dark valley, I fear no harm, for you are with me; your crook and your staff are my reassurance.

5 You spread a banquet before me even if enemies surround me; you anoint my head with oil; abundance is my lot.

6 Such goodness and constancy shall surely be my companions as long as I live, and I shall journey again to Yahweh's house for many days to come.

CLINES 2011

David Clines, *What Remains of the Hebrew Bible? The Accuracy of the Text of the Hebrew Bible in the Light of the Qumran Samuel (4QSam^a)*. In: GEOFFREY KHAN & DIANA LIPTON (Hrsg.), *Studies on the Text and Versions of the Hebrew Bible in Honour of Robert Gordon*. (Leiden 2011), 211–220.

I do not mean to say that this state of radical textual uncertainty implies that we no longer have a Hebrew Bible, or that we do not any longer know what the contents and the sequence of materials within the biblical books generally were. Viewed from a perspective of some distance from text-critical enquiries, the text of the Hebrew Bible is reasonably sound; there are, speaking generally, no major lacunae, large-scale disarrangements or wildly variant textual witnesses. For many purposes, therefore, we can say that what remains of the Hebrew Bible is good or good enough; but if our purpose is to say exactly what the content of the Hebrew Bible was, line by line and word by word, then we must admit that in tens of thousands of cases it was likely to have been other than what we hold in our hands as the Masoretic text. We have been blinded to some extent by the remarkable transmissi-
sional accuracy of the Masoretic tradition, which cannot be denied. Yet there was for most of the books of the Hebrew Bible a long period available for the creation of textual pluriformity between the composition of the books of the Hebrew Bible and the beginnings of Masoretic solicitude, and it is entirely reasonable that the usual fallible processes of scribal transmission have left their marks on what is now perceived as the received text.

NGO 2013

ROBIN NGO, MEGAN SAUTER, NOAH WIENER & GLENN J. CORBETT (Hrsg.), *Exploring Genesis, The Bible's Ancient Traditions in Context*. ([Washington 2013](#)).

V Introduction by Robin Ngo

1 The Genesis of Genesis: Is the Creation Story Babylonian? by Victor Hurowitz

17 The Creation Story from Enuma EliÚ?

20 The Creation Story from Genesis

22 George Smith's Other Find: The Babylonian Flood Tablet

24 Keep Reading

26 Why Did Joseph Shave? by Lisbeth S. Fried

33 Abraham's Ur: Did Woolley Excavate the Wrong Place? by Molly Dewsnap Meinhardt

43 Abraham's Ur—Is the Pope Going to the Wrong Place? by Hershel Shanks

48 Where Was Abraham's Ur? The Case for the Babylonian City by Alan R. Millard

Grabung

WIENER 2013

NOAH WIENER (Hrsg.), *Jerusalem Archaeology, Exposing the Biblical City*. ([Washington 2013](#)).

V Introduction by Noah Wiener

1 Jerusalem Roundup by Hershel Shanks

1 The Temple Mount Sifting Project

5 Wall of Solomon's Royal City Identified

10 Sifting Project Reveals City's Earliest Writing

12 Where Was Solomon's Palace?

15 Layers of Ancient Jerusalem by Shlomit Weksler-Bdolah, Alexander Onn, Shua Kisilevitz and Brigitte Ouahnouna

Jungpaläolithikum

ANDERSON 2013

Atholl Anderson, Sue O'Connor, Rintaro Ono, Geoff Bailey & Jon Erlandson, *Inshore or offshore? Boating and fishing in the Pleistocene*. [Antiquity 87 \(2013\), 879–895](#).

The first settlement of Australia over 40 000 years ago provides evidence of the maritime capabilities of early modern humans. Did they also take to the sea to fish? Recent analysis of fish remains from sites in Timor-Leste and on islands off the coast of Papua New Guinea have been held to include deep sea species that must have been obtained through pelagic fishing. Here Atholl Anderson takes issue with the evidence, arguing that inshore fishing is a more likely scenario, and that deep sea fishing was beyond the scope of Pleistocene communities. Despite the early settlement of Australia, advanced boat technology was developed only during the Holocene. His reassessment is followed by responses from Sue O'Connor and Rintaro Ono, Geoff Bailey and Jon Erlandson, and finally by Atholl Anderson's reply to those comments.

Keywords: Indo-Pacific, Timor-Leste, Jerimalai, Pleistocene, maritime technology, fishing, scombrids

Kultur

SMITH 2013

Oliver D. Smith, *Atlantis as Sesklo*. Bachelor thesis, Roehampton University ([Roehampton 2013](#)).

Since classical antiquity euhemeristic interpretations on Atlantis have been offered. Luce (1969) was certain his Minoan theory was correct while Spanuth (1979) maintained he had identified Atlantis as Heligoland. Both these location hypotheses however as shown are not tenable. Other theories suffer from the same problems. No one has ever been able to solve the riddle of Atlantis largely because of argumentum a silentio and preconceived ideas. While historical approaches based on evidence rely on what an author's work actually contains, most euhemerists as already described use an argument of silence to justify their personal interpretations of Atlantis. What Atlantis doesn't describe – may then simply be added. It has been argued that while there is some historical basis behind the myth of Atlantis, to unravel its truth, one must read the Atlantis' texts in relation to the prehistoric time period which unlocks its localized setting. One reason why Atlantis continues to fascinate the minds of many is because it is wrongly conceived as a terra incognita, which has led to Atlantomania. On the contrary what has been shown here is that Atlantis was itself local and sat in Greece.

Metallzeiten

SALTER 1997

Chris Salter & Peter Crew, *High phosphorus steel from experimentally smelted bog-iron ore*. In: PETER CREW & SUSAN CREW (Hrsg.), *Early Ironworking in Europe, archaeology and experiment, Abstracts International Conference, Plas Tan y Bwlch, Snowdonia National Park Study Centre, 19th to 25th September 1997*. Plas Tan y Bwlch Occasional Paper 3 ([Maentwrog 1997](#)), 83–84.

Large samples of the bloom, billet and bars from XP41 were examined by metallography and microprobe analysis. The steely bloom, with high phosphorus, gradually became decarburised, with increasing segregation of the P, ending with a highly heterogeneous metal. The final bar had a well defined zone of arsenic, nickel, cobalt enrichment on the weld line. Examination of only small samples could give misleading results.

Mittelpaläolithikum

BUCK 2013

Laura T. Buck & Chris B. Stringer, *Having the stomach for it: A contribution to Neanderthal diets?* [Quaternary Science Reviews \(2013\), preprint, 1–7](#). DOI:10.1016/j.quascirev.2013.09.003.

Due to the central position of diet in determining ecology and behaviour, much research has been devoted to uncovering Neanderthal subsistence strategies. This has included indirect studies inferring diet from habitat reconstruction, ethnographic analogy, or faunal assemblages, and direct methods, such as dental wear and isotope analyses. Recently, studies of dental calculus have provided another rich source of dietary evidence, with much potential. One of the most interesting results to come out of calculus analyses so far is the suggestion that Neanderthals may have

been eating non-nutritionally valuable plants for medicinal reasons. Here we offer an alternative hypothesis for the occurrence of non-food plants in Neanderthal calculus based on the modern human ethnographic literature: the consumption of herbivore stomach contents.

Keywords: Neanderthal | Diet | Calculus | Palaeolithic

HARDY 2012

Karen Hardy et al., *Neanderthal medics? Evidence for food, cooking, and medicinal plants entrapped in dental calculus*. [Naturwissenschaften](#) **27** (2012), 617–626.

Karen Hardy, Stephen Buckley, Matthew J. Collins, Almudena Estalrich & Don Brothwell, Les Copeland, Antonio García-Taberner & Samuel García-Vargas, Marco de la Rasilla, Carles Lalueza-Fox & Rosa Huguet, Markus Bastir, David Santamaría, Marco Madella & Julie Wilson, IJngel Fernández Cortés & Antonio Rosas

Neanderthals disappeared sometime between 30,000 and 24,000 years ago. Until recently, Neanderthals were understood to have been predominantly meat-eaters; however, a growing body of evidence suggests their diet also included plants.

We present the results of a study, in which sequential thermal desorption-gas chromatography-mass spectrometry (TD-GC-MS) and pyrolysis-gas chromatography-mass spectrometry (Py-GC-MS) were combined with morphological analysis of plant microfossils, to identify material entrapped in dental calculus from five Neanderthal individuals from the north Spanish site of El Sidrón. Our results provide the first molecular evidence for inhalation of wood-fire smoke and bitumen or oil shale and ingestion of a range of cooked plant foods. We also offer the first evidence for the use of medicinal plants by a Neanderthal individual. The varied use of plants that we have identified suggests that the Neanderthal occupants of El Sidrón had a sophisticated knowledge of their natural surroundings which included the ability to select and use certain plants.

Keywords: Neanderthals | El Sidrón | Dental calculus | Diet | Self-medication

HARDY 2013

Karen Hardy, Stephen Buckley & Michael Huffman, *Neanderthal self-medication in context*. [Antiquity](#) **87** (2013), 873–878.

Though all primates (and other animals) have varying levels of enzymes which make us more or less tolerant of certain toxins, there are plants which are poisonous to all; in order to survive, hominins needed to know which plants not to eat and how and when to eat those plants they selected. The use of edible bitter tasting plants by the Neanderthals of El Sidr'on suggests their knowledge was sufficiently refined to use plants with confidence even when their bitter taste warned of potential toxicity. This demonstrates that their knowledge of plants was at least equal to today's higher primates; with their additional linguistic and technological abilities it may have been far more elaborate. Rather than contradicting the extensive evidence for consumption of meat, the evidence for the use of plants adds a rich new dimension to our developing knowledge of Neanderthal life. We can never know for sure why yarrow and camomile were ingested at El Sidr'on, but we propose that the evidence for self-medication offers the most convincing behavioural context.

Politik

HSIANG 2013

Solomon M. Hsiang, Marshall Burke & Edward Miguel, *Quantifying the Influence of Climate on Human Conflict*. [science](#) **341** (2013), 1212.

Introduction: Despite the existence of institutions designed to promote peace, interactions between individuals and groups sometimes lead to conflict. Understanding the causes of such conflict is a major project in the social sciences, and researchers in anthropology, economics, geography, history, political science, psychology, and sociology have long debated the extent to which climatic changes are responsible. Recent advances and interest have prompted an explosion of quantitative studies on this question.

Methods: We carried out a comprehensive synthesis of the rapidly growing literature on climate and human conflict. We examined many types of human conflict, ranging from interpersonal violence and crime to intergroup violence and political instability and further to institutional breakdown and the collapse of civilizations. We focused on quantitative studies that can reliably infer causal associations between climate variables and conflict outcomes. The studies we examined are experiments or “natural experiments”; the latter exploit variations in climate over time that are plausibly independent of other variables that also affect conflict. In many cases, we obtained original data from studies that did not meet this criterion and used a common statistical method to reanalyze these data. In total, we evaluated 60 primary studies that have examined 45 different conflict data sets. We collected findings across time periods spanning 10,000 BCE to the present and across all major world regions.

Results: Deviations from normal precipitation and mild temperatures systematically increase the risk of conflict, often substantially. This relationship is apparent across spatial scales ranging from a single building to the globe and at temporal scales ranging from an anomalous hour to an anomalous millennium. Our meta-analysis of studies that examine populations in the post-1950 era suggests that the magnitude of climate’s influence on modern conflict is both substantial and highly statistically significant ($P < 0.001$). Each 1-SD change in climate toward warmer temperatures or more extreme rainfall increases the frequency of interpersonal violence by 4% and intergroup conflict by 14% (median estimates).

Discussion: We conclude that there is more agreement across studies regarding the influence of climate on human conflict than has been recognized previously. Given the large potential changes in precipitation and temperature regimes projected for the coming decades—with locations throughout the inhabited world expected to warm by 2 to 4 SDs by 2050—amplified rates of human conflict could represent a large and critical social impact of anthropogenic climate change in both low- and high-income countries.

Story or Book

CLINES 2013

David J. A. Clines, *Made in Sheffield: The First Dictionary of the Ancient Hebrew Language*. (Unpublished 2013).

A special feature of the dictionary that I have not yet alluded to is the presence of many ‘new words’, by which I mean words that do not appear in the standard Hebrew–English dictionary of BDB. BDB contains, by my reckoning, some 8424 words; DCH contains some 12,628 words, that is, 4204 new words. That is to say, DCH has increased the Hebrew vocabulary by 50%. This is reason enough in itself for possessing the Dictionary of Classical Hebrew. Who wants to be using a dictionary that contains only two-thirds of the vocabulary? No other dictionary contains these words.

The second type of new words are those that have been proposed (usually for Biblical Hebrew) by scholars. There are 2812 of these words. Not many more

than 10% of them have appeared in any other dictionary. I need to stress that these words have in most cases only the status of proposals. Inclusion of a word in the Dictionary does not carry with it any guarantee that its existence is firmly established. Not a few of the proposals are in fact mutually exclusive, and they cannot all be right. Nevertheless, I formed the view that it is the proper business of a dictionary of the classical Hebrew language at this moment to record, as far as is feasible, the very many proposals that have been made in the twentieth century for the refinement and expansion of our knowledge of the Hebrew vocabulary. My former teacher, Professor Winton Thomas, called the project of identifying new lexicographical proposals the Recovery of the Hebrew Language. No one else has collected these proposals, many of the proposals are excellent, and we all need to see what they are instead of leaving them buried in obscure journals and *Festschriften*. Except for a handful, I did not have the time to evaluate the proposals (I reckon it would take me a day on average to do so), so there is a task there for a future generation.

O'KEEFFE 2013

Tadhg O'Keeffe, *From chieftdom to state in early Ireland*. [Antiquity 87 \(2013\), 931–941](#).

D. Blair Gibson. *From chieftdom to state in early Ireland*. 341 pages, 81 b&w illustrations, 26 maps, 15 tables. 2012. Cambridge: Cambridge University Press; 978-1-107-01563-0 hardback £65.

Irish archaeologists at least will anticipate a book on Clare, knowing that Gibson has spent many years working in and thinking about the Burren, and they will welcome this work as the summation of a project with started life with, as he tells us in his preface, a visit more than 30 years ago to one of the Burren's greatest archaeological sites, Cahercommaun, the cliff-edge fort excavated by Hugh O'Neill Hencken in 1934. Cahercommaun dominates the first half of the book, the half that brings us to Brian Bóroimhe (or Bóruma, or simply Bóru) and the era of power-plays between very powerful regional kings.

Does this book convince in its general arguments? On the whole, it does, warts and all (and it is the archaeology in and around Chapter 5 that carries the most warts). It certainly contributes to our developing knowledge of social and territorial recalibrations at the end of the first millennium. Whether this is best understood as a transition from 'chieftdom' to 'state' is a trickier issue, but it is a good model, a good way of thinking, and for that at least the fruit of Gibson's many years in Clare deserves the attention of serious scholars of first millennium Ireland.

RENDSBURG 1996

Gary A. Rendsburg, *The Sheffield dictionary of Classical Hebrew*. [AJS Review 21 \(1996\), 111–118](#).

David J. A. Clines, ed. *The Dictionary of Classical Hebrew*. Vol. 1: Aleph. Sheffield: Sheffield Academic Press, 1993. 475 pp.

I opened this review by referring to "the massive amount of excellent work that went into the production of this new dictionary." This approach to the Hebrew vocabulary represents a major departure from all previous efforts in the field of Hebrew lexicography. But I also referred at the outset to the faults and failings of DCH, and it is to these that I now turn my attention. First, one must question very seriously the decision not to include cognate material. I include here several samples of errors which can arise from such omissions.