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References

Aktuell

D'Esposito 2019

Mark D'Esposito, *Are individual differences in human brain organization measured with functional MRI meaningful?* PNAS **116** (2019), 22432–22434.

Shirado 2019

Hirokazu Shirado, George Iosifidis & Nicholas A. Christakis, *Assortative mixing and resource inequality enhance collective welfare in sharing networks*. PNAS **116** (2019), 22442–22444.

Resource sharing can impose an economic trade-off: One person acquiring resources may mean that another cannot. However, if individuals value the social process itself that is a feature of economic exchanges, socio-structural manipulations might improve collective welfare. Using a series of online experiments with 600 subjects arrayed into 40 groups, we explore the welfare impact of 2 network interventions. We manipulated the degree assortativity of the groups (who were engaged in resource sharing) while keeping the number of people and connections fixed. Distinctly, we also manipulated the distribution of sharable resources by basing endowments on network degree. We show that structural manipulation (implementing degree assortativity) can facilitate the reciprocity that is achievable in exchanges and consequently affect group-level satisfaction. We also show that individuals are more satisfied with exchanges when each node is unequally endowed with resources that are proportional to the number of potential recipients, which again facilitates reciprocity. Collective welfare in settings involving resource sharing can be enhanced without the need for extra resources.

Keywords: collective welfare | resource sharing | reciprocity | network intervention | inequality

Uhlig 2019

Tobias Uhlig, Joachim Krüger, Gundula Lidke, Detlef Jantzen, Sebastian Lorenz, Nicola Ialongo & Thomas Terberger, *Lost in combat? A scrap metal find from the Bronze Age battlefield site at Tollense*. Antiquity **93** (2019), 1211–1230.

A decade ago, archaeologists discovered the site of a Bronze Age battlefield in the Tollense Valley in north-eastern Germany. Dated to the early thirteenth century BC, the remains of over 140 individuals have been documented, along with many associated bronze objects. Here, the authors present a new assemblage of 31 objects from the site, including three bronze cylinders that may be the fastenings of an organic container. The objects are similar to those found in Bronze Age burials of southern Central Europe, and may represent the personal equipment of awarrior from that region who died on the battlefield in Northern Europe.

Keywords: Germany | Tollense Valley | Bronze Age | warfare | conflict | bronze fastenings

Yang 2019

Xiao-Guang Yang, Teng Liu, Yue Gao, Shanhai Ge, Yongjun Leng, Donghai Wang & Chao-Yang Wang, *Asymmetric Temperature Modulation for Extreme Fast Charging of Lithium-Ion Batteries*. Joule (2019), preprint, 1–41. DOI:10.1016/j.joule.2019.09.021.

Adding a 200-mile range in 10 min, so-called extreme fast charging (XFC), is the key to mainstream adoption of battery electric vehicles (BEVs). Here, we present an asymmetric temperature modulation (ATM) method that, on one hand, charges a Li-ion cell at an elevated temperature of 60.C to eliminate Li plating and, on the other, limits the exposure time at 60.C to only .10 min per cycle, or 0.1 % of the lifetime of a BEV, to prevent severe solid-electrolyteinterphase growth. The asymmetric temperature between charge and discharge opens a new path to enhance kinetics and transport during charging while still achieving long life. We show that a 9.5-Ah 170-Wh/kg cell sustained 1,700 XFC cycles (6 C charge to 80 % state of charge) at 20 % capacity loss with the ATM, compared to 60 cycles for a control cell, and that a 209-Wh/kg BEV cell retained 91.7 % capacity after 2,500 XFC cycles.

Context & Scale: Electric vehicles will only be truly competitive when they can be charged as fast as refilling a gas tank. The US Department of Energy has set a goal of developing extreme fast charging (XFC) technology that can add 200 miles of driving range in 10 min. A critical barrier to XFC is Li plating, which usually occurs at high charge rates and drastically deteriorates battery life and safety. Here, we present an asymmetric temperature modulation (ATM) method that charges a Li-ion cell at an elevated temperature of 60.C to eliminate Li plating and limits the exposure time to 60.C to only .10 min per cycle to prevent serious materials degradation. Using industrially available battery materials, we show that a high-energy (209 Wh/ kg) Li-ion cell with the ATM method retains 91.7 % capacity after 2,500 XFC cycles (equal to 500,000 miles of driving range), far exceeding the US Department of Energy (DOE) target (500 cycles at 20 % loss).

Anthropologie

Chan 2019

Eva K. F. Chan, Axel Timmermann & Vanessa M. Hayes et al., *Human origins in a southern African palaeo-wetland and first migrations*. nature **575** (2019), 185–189.

n575-0185-Supplement.pdf

Anatomically modern humans originated in Africa around 200 thousand years ago (ka)1–4. Although some of the oldest skeletal remains suggest an eastern African origin2, southern Africa is home to contemporary populations that represent the earliest branch of human genetic phylogeny5,6. Here we generate, to our knowledge, the largest resource for the poorly represented and deepest-rooting maternal L0 mitochondrial DNA branch (198 new mitogenomes for a total of 1,217 mitogenomes) from contemporary southern Africans and show the geographical isolation of L0d1'2, L0k and L0g KhoeSan descendants south of the Zambezi river in Africa. By establishing mitogenomic timelines, frequencies and dispersals, we show that the L0 lineage emerged within the residual Makgadikgadi–Okavango palaeo-wetland of southern Africa7, approximately 200 ka (95 % confidence interval, 240–165 ka). Genetic divergence points to a sustained 70,000-year-long existence of the L0 lineage before an out-of-homeland northeast–southwest dispersal between 130 and 110 ka. Palaeoclimate proxy and model data suggest that

increased humidity opened green corridors, first to the northeast then to the southwest. Subsequent drying of the homeland corresponds to a sustained effective population size (L0k), whereas wet–dry cycles and probable adaptation to marine foraging allowed the southwestern migrants to achieve population growth (L0d1'2), as supported by extensive south-coastal archaeological evidence8–10. Taken together, we propose a southern African origin of anatomically modern humans with sustained homeland occupation before the first migrations of people that appear to have been driven by regional climate changes.

Eva K. F. Chan, Axel Timmermann, Benedetta F. Baldi, Andy E. Moore, Ruth J. Lyons, Sun-Seon Lee, Anton M. F. Kalsbeek, Desiree C. Petersen, Hannes Rautenbach, Hagen E. A. Förtsch, M. S. Riana Bornman & Vanessa M. Hayes

Dart 1925

Raymond A. Dart, *Australopithecus africanus*, *The Man-Ape of South Africa*. nature **115** (1925), 195–199.

Bibel

Jacobs 2016

Jarod Jacobs, *The Balance of Probability*, *Statistics and the Diachronic Study of Ancient Hebrew*. Journal for Semitics **25** (2016), 927–960.

In this article, I discuss three statistical tools that have proven pivotal in linguistic research, particularly those studies that seek to evaluate large datasets. These tools are the Gaussian Curve, significance tests, and hierarchical clustering. I present a brief description of these tools and their general uses. Then, I apply them to an analysis of the variations between the "biblical" DSS and our other witnesses, focusing upon variations involving particles. Finally, I engage the recent debate surrounding the diachronic study of Biblical Hebrew. This article serves a dual function. First, it presents statistical tools that are useful for many linguistic studies. Second, it develops an analysis of the he-locale, as it is used in the "biblical" Dead Sea Scrolls, Masoretic Text, and Samaritan Pentateuch. Through that analysis, this article Highlights the value of inferential statistical tools as we attempt to better understand the Hebrew of our ancient witnesses.

Joosten 2006

Jan Joosten, *The Hebrew and Syriac Text of Deuteronomy 1:44*. In: Wido Th. van Peursen & R. Bas ter Haar Romeny (Hrsg.), *Text, Translation, and Tradition – Studies on the Peshitta and its Use in the Syriac Tradition*, *Presented to Konrad D. Jenner on the Occasion of His Sixty-Fifth Birthday*. Monographs of the Peshitta Institute 14 (Leiden 2006), 65–69.

In his novel The Chosen, Chaim Potok stages a rabbi scandalized by the suggestion that a passage in the Talmud should be emended because it is grammatically indefensible. One might have even stronger reservations about an emendation of the biblical text based on a mere stylistic anomaly.

Nevertheless, the case of Deut 1:44 merits consideration. The stylistic anomaly in the MT corresponds to the textual evidence provided by the Peshitta as do two sides of the same coin. Not only is there a difficulty in the Hebrew text, there is also a variant reading attested in an ancient version. Taken together, the two phenomena tend to indicate that the Hebrew text reflected by the Syriac translation is the more original text of Deut 1:44.

Joosten 2017

Jan Joosten, *Empirical Evidence and its Limits*, *The Use of the Septuagint in Retracing the Redaction History of the Hebrew Bible*. In: Reinhard Müller & Juha Pakkala (Hrsg.), *Insights into Editing in the Hebrew Bible and the Ancient Near East*, *What Does Documented Evidence Tell Us about the Transmission of Authoritative Texts?* Contributions to Biblical Exegesis & Theology 84 (Leuven 2017), 247–265.

For many books of the Hebrew Bible, the Septuagint gives access to a Hebrew text-form that differs from the received text. Not all large-scale differences between the Greek and the Hebrew texts are to be explained in this way: some of them may go back to the translators. But when the translation is otherwise rather literal, following its source text word-for-word, it is hard to attribute large-scale differences to the translators. The texts from Qumran have shown that the idea of multiple editions of biblical books is anything but far-fetched.

The mere fact that the Greek tradition derives from a non-Masoretic Hebrew edition does not by itself decide the matter of priority. The Masoretic tradition may be later than, and depending on, the textual form attested in Greek—grosso modo, this is the situation in Jeremiah. But in other cases, the source text of the Greek tradition may be based on a text similar to the proto-MT—a constellation illustrated, probably, by 1 Esdras. A third possibility is that the MT and the Greek tradition reflect parallel editions that independently go back to a lost Hebrew version—this is what one finds in Kings.

In addition, in Kings all Greek witnesses manifest a degree of conflation of text-types. At some early stage, it seems, Greek scribes would be more interested in preserving various text-forms than in transmitting a streamlined text. Separating out valuable strands of text from the multiplicity of witnesses requires stamina and experience. Julio Trebolle Barrera's pioneering efforts in this field show how this may be done. Many of his observations remain to be pursued more systematically.

Joosten 2019

Jan Joosten, *The linguistic dating of the Joseph Story*. Hebrew Bible and Ancient Israel (2019), 24–43.

Establishing a probable date for the Joseph story has proven difficult, and until the present day widely divergent temporal horizons continue to be proposed. An approach based on historical linguistics promises to narrow down the window of probability. Like all human languages, Biblical Hebrew changed over time in ways that can be tracked and recorded. The present paper proposes a detailed analysis of the language of the Joseph story in diachronic perspective.

Keywords: Diachronic linguistics | Classical Biblical Hebrew | Late Biblical Hebrew | oral/written transmission.

Joosten 2019

Jan Joosten, *Ancient Editions and the Question of the Urtext*, *Evidence from 1 Kings*. In: *Urtext, Archetype, Fluidity or Textual Convergence – The Quest for the Texts of the Hebrew Bible*, *International Conference, Metz, 5–7 November*. (2019), 1–9.

The project of preparing a critical text, an eclectic text put together from the various textual witnesses, runs into problems. Even setting aside the problem of subjectivity, the goal of such a project is hard to define. What are we aiming for? Which text do we seek to reconstruct? The text "as it left the hands of the author"

is a concept unsuitable to the type of Traditionsliteratur we find in the Hebrew bible—let alone the text "as its author ideally envisaged it". The notion of a text standing at the point where redaction history ends and textual history begins is no more felicitous. The numerous instances where redaction history and textual history are inextricably entangled show it to be simplistic and unusable.

If "the biblical text" does not exist, one may be tempted to give up the idea of editing it altogether. It is entirely possible, and a lot less hassle, to do textual criticism without aiming for a critical edition (e.g. in a commentary or a journal article). The question "what is the text of the Hebrew Bible?" is hard to answer only if we wish to pin it down and record it. To my mind, giving up on editing the Hebrew Bible would be defeatist. We need critical editions that take account of new material that has come to light over the last 70 years or so, and take account of the new thinking this material has generated. Moreover, such editions are within reach. The crucial step is to view the movement of the text not as an obstacle, but as an opportunity. We should seek fully to incorporate textual history into the editorial project. We should aim for an edition not of a static text, but a dynamic one.

Römer 2019

Thomas Römer, *Genesis 39 and the Composition of the Joseph Narrative*. Hebrew Bible and Ancient Israel **8** (2019), 44–60.

The following article argues that the story of Joseph and the Egyptian wife does not belong to the original Joseph story. It was inserted in order to present Joseph as a model of wisdom. A later redactor added the theological comments according to which "Yhwh was with Joseph" in order to strengthen the idea that the whole Joseph story is a story about divine providence.

Keywords: Joseph | Potiphar | tale of two brothers | wisdom tradition | prison

Schipper 2019

Bernd U. Schipper, *The Egyptian Background of the Joseph Story*. Hebrew Bible and Ancient Israel **8** (2019), 6–23.

Previous scholarship searched for the Egyptian background of the Joseph story in New Kingdom Egypt and compared Gen 37–50 to the story of Sinuhe and the Tale of the Two Brothers, but a reevaluation of the evidence points to the Egyptian Late Period as the time of the Joseph story's composition. Besides the Egyptian names (Asenat, Potiphera, Zafenat-Paneach) the plot of the Joseph narrative reaches a deeper meaning against the backdrop of the story of the wise Ahiqar, which was found in its Aramaic version on Elephantine, and of an Egyptian papyrus from the Berlin collection, containing the motif of the seven years of hunger. When the evidence is considered together, the Joseph story is best described as a diaspora-novella that puts forward a concept of identity fitting best into the historical situation of Persian period Egypt.

Keywords: Late Period Egypt | Ahiqar | Sinuhe | Elephantine | Diaspora novella

Ussishkin 2018

David Ussishkin, *Megiddo – Armageddon, The story of the Canaanite and Israelite city*. (Jerusalem 2018).

Large-scale archaeological excavations have been conducted at Tel Megiddo over the course of the last one hundred and thirteen years. No other central mound of the biblical period in the Land of Israel has been so intensively excavated and investigated. As a result, Megiddo has come to symbolize biblical archaeology and remains a key site for understanding the archaeology and history of the biblical

period. The present book summarizes the history of Megiddo and its archaeological findings in clear and simple language for the general public.

Whitt 2019
: William Whitt, *Genesis, A new translation with commentary.* (Highland Park 2019).

Grabung

Dickson 2019
: James H. Dickson & Klaus D. Oeggl et al., *Seventy-five mosses and liverworts found frozen with the late Neolithic Tyrolean Iceman, Origins, taphonomy and the Iceman's last journey.* PLoS ONE **14** (2019), e223752. DOI:10.1371/journal.pone.0223752.

The Iceman site is unique in the bryology of the Quaternary. Only 21 bryophytes (mosses and liverworts) grow now in the immediate vicinity of the 5,300 year old Iceman discovery site at 3,210m above sea level in the Ötztal Alps, Italy. By contrast 75 or more species including at least ten liverworts were recovered as subfossils frozen in, on and around the Iceman from before, at and after his time. About two thirds of the species grow in the nival zone (above 3,000m above sea level) now while about one third do not. A large part of this third can be explained by the Iceman having both deliberately and inadvertently carried bryophytes during his last, fatal journey. Multivariate analyses (PCA, RDA) provide a variety of explanations for the arrivals of the bryophytes in the rocky hollow where the mummy was discovered. This is well into the nival zone of perennial snow and ice with a very sparse, non-woody flora and very low vegetation cover. Apart from the crucial anthropochory (extralocal plants), both hydrochory (local species) and zoochory (by wild game such as ibex of both local and extra-local species) have been important. Anemochory of mainly local species was of lesser importance and of extra-local species probably of little or no importance. The mosses Neckera complanata and several other ecologically similar species as well as a species of Sphagnum (bogmoss) strongly support the claim that the Iceman, took northwards up Schnalstal, South Tyrol, as the route of the last journey. A different species of bogmoss, taken from his colon is another indication the Iceman's presence at low altitude south of Schnalstal during his last hours when he was first high up, low down and finally at over 3,000m.

James H. Dickson, Klaus D. Oeggl, Werner Kofler, Wolfgang K. Hofbauer, Ronald Porley, Gordon P. Rothero, Alexandra Schmidl & Andreas G. Heiss

Panitz-Cohen 2018
: Nava Panitz-Cohen, Robert A. Mullins, Arlette David & Ariel Shatil, *A Late Middle Bronze IIB Burial from Tel Abel Beth Maacah, A Northern Perspective on the Hyksos Phenomenon.* In: Itzhaq Shai, Jeffrey R. Chadwick, Louise Hitchcock, Amit Dagan, Chris McKinny & Joe Uziel (Hrsg.), *Tell it in Gath: Studies in the History and Archaeology of Israel, Essays in Honor of A. M. Maeir on the Occasion of his Sixtieth Birthday.* Ägypten und Altes Testament 90 (Münster 2018), 129–152.

During the Middle Bronze Age IIB, northeastern Canaan was dominated by the metropolis of Hazor. Its importance is not only evident from its great size and

rich remains, but also from allusions to the site in various documents from Mari, as well as from around 20 clay tablets found at Hazor itself (Ben-Tor 2016: 66–75, with references; also Ilan 1995: 307–308; Rainey and Notley 2006: 55–57). In proximity to this mega-city state were a number of large, fortified sites that were most likely subordinate to it. These include Tel Dan, a fortress at Kiryat Shemona and, most recently, Tell Abil el-Qame., identified with biblical Abel Beth Maacah. Among the abundant Middle Bronze Age IIB remains at the latter site was a grave dug into the layers of a rampart dating towards the end of this period. In this article, we will briefly describe the MB IIB remains at Tel Abel Beth Maacah with a particular focus on the grave and its contents as a catalyst for discussing the "Hyksos phenomenon" in the north of Canaan.

Islam

Nöldeke 1860a
Theodor Nöldeke & Friedrich Schwally, *Geschichte des Qorāns*, *Erster Teil: Über den Ursprung des Qorāns*. (Leipzig ^{2}1909).

Nöldeke 1860b
Theodor Nöldeke & Friedrich Schwally, *Geschichte des Qorāns*, *Zweiter Teil: Die Sammlung des Qorāns*. (Leipzig ^{2}1919).

Nöldeke 1860c
Theodor Nöldeke, Gotthelf Bergsträßer & 0tto Pretzl, *Geschichte des Qorāns*, *Dritter Teil: Die Geschichte des Korantexts*. (Leipzig ^{2}1938).

Schöller 2008
Marco Schöller, *Mohammed*. Suhrkamp Basisbiographie 34 (Frankfurt 2008).

Klima

Henehan 2019
Michael J. Henehan, Noah J. Planavsky & Pincelli M. Hull et al., *Rapid ocean acidification and protracted Earth system recovery followed the end-Cretaceous Chicxulub impact*. PNAS **116** (2019), 22500–22504.

pnas116-22500-Supplement.pdf

Mass extinction at the Cretaceous–Paleogene (K-Pg) boundary coincides with the Chicxulub bolide impact and also falls within the broader time frame of Deccan trap emplacement. Critically, though, empirical evidence as to how either of these factors could have driven observed extinction patterns and carbon cycle perturbations is still lacking. Here, using boron isotopes in foraminifera, we document a geologically rapid surface-ocean pH drop following the Chicxulub impact, supporting impact-induced ocean acidification as amechanism for ecological collapse in the marine realm. Subsequently, surface water pH rebounded sharply with the extinction of marine calcifiers and the associated imbalance in the global carbon cycle. Our reconstructed water-column pH gradients, combined with Earth system modeling, indicate that a partial ≈50 % reduction in global marine primary productivity is sufficient to explain observed marine carbon isotope patterns at

the K-Pg, due to the underlying action of the solubility pump. While primary productivity recovered within a few tens of thousands of years, inefficiency in carbon export to the deep sea lasted much longer. This phased recovery scenario reconciles competing hypotheses previously put forward to explain the K-Pg carbon isotope records, and explains both spatially variable patterns of change in marine productivity across the event and a lack of extinction at the deep sea floor. In sum, we provide insights into the drivers of the last mass extinction, the recovery of marine carbon cycling in a postextinction world, and the way in which marine life imprints its isotopic signal onto the geological record.

Keywords: Cretaceous/Paleogene boundary | ocean acidification | boron isotopes | mass extinction | GENIE model

Michael J. Henehan, Andy Ridgwell, Ellen Thomas, Shuang Zhang, Laia Alegret, Daniela N. Schmidt, James W. B. Rae, James D. Witts, Neil H. Landman, Sarah E. Greene, Brian T. Huber, James R. Super, Noah J. Planavsky & Pincelli M. Hull

Significance: Debate lingers over what caused the last mass extinction 66 million years ago, with intense volcanism and extraterrestrial impact the most widely supported hypotheses. However, without empirical evidence for either's exact environmental effects, it is difficult to discern which was most important in driving extinction. It is also unclear why recovery of biodiversity and carbon cycling in the oceans was so slow after an apparently sudden extinction event. In this paper, we show (using boron isotopes and Earth system modeling) that the impact caused rapid ocean acidification, and that the resulting ecological collapse in the oceans had long-lasting effects for global carbon cycling and climate. Our data suggest that impact, not volcanism, was key in driving end-Cretaceous mass extinction.

Maxwell 2019

Sean L. Maxwell et al., *Degradation and forgone removals increase the carbon impact of intact forest loss by 626 %*. Science Advances **5** (2019), eaax2546. DOI:10.1126/sciadv.aax2546.

SciAdv05-eaax2546-Supplement.pdf

Intact tropical forests, free from substantial anthropogenic influence, store and sequester large amounts of atmospheric carbon but are currently neglected in international climate policy. We show that between 2000 and 2013, direct clearance of intact tropical forest areas accounted for 3.2 % of gross carbon emissions from all deforestation across the pantropics. However, full carbon accounting requires the consideration of forgone carbon sequestration, selective logging, edge effects, and defaunation. When these factors were considered, the net carbon impact resulting from intact tropical forest loss between 2000 and 2013 increased by a factor of 6 (626 %), from 0.34 (0.37 to 0.21) to 2.12 (2.85 to 1.00) petagrams of carbon (equivalent to approximately 2 years of global land use change emissions). The climate mitigation value of conserving the 549 million ha of tropical forest that remains intact is therefore significant but will soon dwindle if their rate of loss continues to accelerate.

Sean L. Maxwell, Tom Evans, James E. M. Watson, Alexandra Morel, Hedley Grantham, Adam Duncan, Nancy Harris, Peter Potapov, Rebecca K. Runting, Oscar Venter, Stephanie Wang & Yadvinder Malhi

Kultur

Bogaard 2019

Amy Bogaard, Mattia Fochesato & Samuel Bowles, *The farming-inequality nexus, New insights from ancient Western Eurasia*. Antiquity

93 (2019), 1129–1143.

Antiquity093-1129-Supplement.pdf

This article advances the hypothesis that the transformation of farming from a labour-limited form to a land-limited form facilitated the emergence of substantial and sustained wealth inequalities in many ancient agricultural societies. Using bioarchaeological and other relevant evidence for the nature of ancient agrosystems, the authors characterise 90 Western Eurasian site-phases as labour- vs land-limited. Their estimates of wealth inequality (the Gini coefficient), which incorporate data on house and household storage size and individual grave goods—adjusted for comparability using new methods—indicate that land-limited farming systems were significantly more unequal than labour-limited ones.

Keywords: Eurasia | wealth inequality | farming | labour | land | traction

Methoden

Taché 2019

Karine Taché, Manon Bondetti, Alexandre Lucquin, Marjolein Admiraal & Oliver E. Craig, *Something fishy in the Great Lakes? A reappraisal of early pottery use in north-eastern North America*. Antiquity **93** (2019), 1339–1349.

Antiquity093-1339-Supplement.pdf

Lipid residue analysis has recently been applied to investigate the adoption of pottery by Early Woodland hunter-gatherers in north-eastern North America. Results, however, have proven contradictory, especially regarding the extent to which early ceramics were used for processing aquatic resources. Here, the authors argue that this inconsistency is due to the use of different analytical procedures and criteria for identifying aquatic organisms, rather than any actual variations in pottery use. By applying robust analytical criteria and methods to Early Woodland pottery from the Great Lakes region, the authors present evidence supporting their hypothesis that such pottery was indeed used for processing aquatic resources.

Keywords: North America | EarlyWoodland Period | pottery | residue analysis | lipid biomarkers

Neolithikum

Gopher 2019

Avi Gopher et al., *Nahal Yarmuth 38, A new and unique Pre-Pottery Neolithic B site in central Israel*. Antiquity **93** (2019), e29.

The small, Middle Pre-Pottery Neolithic B site (tenth millennium cal BP) of Nahal Yarmuth 38 in central Israel consists of a unique series of rectilinear structures with plastered floors, beneath which multiple interments were found. The nature of the finds combined with existing knowledge of burial customs of this period make Nahal Yarmuth 38 an ideal site for investigating designated burial sites in the Middle Pre-Pottery Neolithic B.

Keywords: Israel | Pre-Pottery Neolithic B | burial | Neolithisation

Avi Gopher, Anna Eirikh-Rose, Hai Ashkenazi, Eyal Marco, Hila May, Yulia Makoviychuk, Lidar Sapir-Hen, Shirad Galmor, Heeli C. Schechter, Dana Ackerfeld, Gil Haklay,& Katia Zutovski

Religion

Reshef 2019

Hagar Reshef, Marie Anton, Fanny Bocquentin, Jacob Vardi, Hamoudi Khalaily, Lauren Davis, Guy Bar-Oz & Nimrod Marom, *Tails of animism, A joint burial of humans and foxes in Pre-Pottery Neolithic Motza, Israel*. Antiquity **93** (2019), e28.

The recent discovery of a Late/Final Pre-Pottery Neolithic B burial of an adult and two children associated with fox bones at the site of Motza, Israel, demonstrates the broader socio-cultural perspective, and possibly continued animistic world views, of Neolithic foragers at the onset of the agricultural revolution.

Keywords: Israel | Neolithisation | burial | animism | small carnivores | fox

Story or Book

Robinson 2019

Andrew Robinson, *Adventures of a Computational Explorer*. nature **575** (2019), 27.

Adventures of a Computational Explorer. Stephen Wolfram. Wolfram Media (2019)

Computer scientist and businessman Stephen Wolfram, designer of the technical-computing system Mathematica, proffers good stories in this collection of autobiographical essays. In 'Something I learned in kindergarten', he recalls himself as a six-year-old spotting a bite taken out of the Sun: a solar eclipse, something unknown to the other children. In 'My life in technology', he recalls rejecting the Latin word mathematica, learnt at school, as too long and ponderous. Silicon Valley luminary Steve Jobs convinced him otherwise.