

References

Aktuell

CALLAWAY 2015

Ewen Callaway, *Hot climes yield ancient DNA*. [nature 526 \(2015\), 303](#).
After years of frustration, researchers are getting genetic material from old bones in warm places.

CRESSEY 2015

Daniel Cressey, *Firms that suck carbon from air go commercial*. [nature 526 \(2015\), 306–307](#).

Two companies announce that they are expanding and upgrading their plants. These processes are currently powered by electricity, which in British Columbia is mainly generated by hydroelectric sources, says Keith. Initially, the company will re-release the captured CO₂, but Carbon Engineering announced last week that it had signed a Can\$ 435,000 (US\$ 333,000) deal with the province of British Columbia to assess the potential of turning the CO₂ into fuel to power local buses.

GÄCHTER 2015

Simon Gächter, *Visible inequality breeds more inequality*. [nature 526 \(2015\), 333–334](#).

Experiments suggest that when people can see wealth inequality in their social network, this propels further inequality through reduced cooperation and reduced social connectivity.

MOOSMANN 2015

Bjoern Moosmann, Nadine Roth & Volker Auwärter, *Finding cannabinoids in hair does not prove cannabis consumption*. [Scientific Reports 5 \(2015\), 14906](#). DOI:10.1038/srep14906.

SciRep05-14906-Supplement.pdf

Hair analysis for cannabinoids is extensively applied in workplace drug testing and in child protection cases, although valid data on incorporation of the main analytical targets, 9-tetrahydrocannabinol (THC) and 11-nor-9-carboxy-THC (THC-COOH), into human hair is widely missing. Furthermore, 9-tetrahydrocannabinolic acid A (THCA-A), the biogenetic precursor of THC, is found in the hair of persons who solely handled cannabis material. In the light of the serious consequences of positive test results the mechanisms of drug incorporation into hair urgently need scientific evaluation. Here we show that neither THC nor THCA-A are incorporated into human hair in relevant amounts after systemic uptake. THC-COOH, which is considered an incontestable proof of THC uptake according to the current scientific doctrine, was found in hair, but was also present in older hair segments, which already grew before the oral THC intake and in sebum/sweat samples. Our studies show that all three cannabinoids can be present in hair of non-consuming individuals because of transfer through cannabis consumers, via their hands, their sebum/sweat, or cannabis smoke. This is of concern for e.g. child-custody cases as cannabinoid findings in a child's hair may be caused by close contact to cannabis consumers rather than by inhalation of side-stream smoke.

NISHI 2015

Akihiro Nishi, Hirokazu Shirado, David G. Rand & Nicholas A. Christakis, *Inequality and visibility of wealth in experimental social networks*. [nature](#) **526** (2015), 426–429.

[n526-0426-Supplement1.pdf](#), [n526-0426-Supplement2.mp4](#)

Humans prefer relatively equal distributions of resources^{1–5}, yet societies have varying degrees of economic inequality⁶. To investigate some of the possible determinants and consequences of inequality, here we perform experiments involving a networked public goods game in which subjects interact and gain or lose wealth. Subjects ($n=1,462$) were randomly assigned to have higher or lower initial endowments, and were embedded within social networks with three levels of economic inequality (Gini coefficient 0.0, 0.2, and 0.4). In addition, we manipulated the visibility of the wealth of network neighbours. We show that wealth visibility facilitates the downstream consequences of initial inequality—in initially more unequal situations, wealth visibility leads to greater inequality than when wealth is invisible. This result reflects a heterogeneous response to visibility in richer versus poorer subjects. We also find that making wealth visible has adverse welfare consequences, yielding lower levels of overall cooperation, inter-connectedness, and wealth. High initial levels of economic inequality alone, however, have relatively few deleterious welfare effects.

RASMUSSEN 2015

Simon Rasmussen et al., *Early Divergent Strains of Yersinia pestis in Eurasia 5,000 Years Ago*. [Cell](#) **163** (2015), 571–582.

Simon Rasmussen, Morten Erik Allentoft, Kasper Nielsen, Ludovic Orlando, Martin Sikora, Karl-Göran Sjögren, Anders Gorm Pedersen, Mikkel Schubert, Alex Van Dam, Christian Møller, Outzen Kapel, Henrik Bjørn Nielsen, Søren Brunak, Pavel Avetisyan, Andrey Epimakhov, Mikhail Viktorovich Khalyapin, Artak Gnuni, Aivar Kriiska, Irena Lasak, Mait Metspalu, Vyacheslav Moiseyev, Andrei Gromov, Dalia Pokutta, Lehti Saag, Liivi Varul, Levon Yepiskoposyan, Thomas Sicheritz-Pontén, Robert A. Foley, Marta Mirazón Lahr, Rasmus Nielsen, Kristian Kristiansen & Eske Willerslev

The bacteria *Yersinia pestis* is the etiological agent of plague and has caused human pandemics with millions of deaths in historic times. How and when it originated remains contentious. Here, we report the oldest direct evidence of *Yersinia pestis* identified by ancient DNA in human teeth from Asia and Europe dating from 2,800 to 5,000 years ago. By sequencing the genomes, we find that these ancient plague strains are basal to all known *Yersinia pestis*. We find the origins of the *Yersinia pestis* lineage to be at least two times older than previous estimates. We also identify a temporal sequence of genetic changes that lead to increased virulence and the emergence of the bubonic plague. Our results show that plague infection was endemic in the human populations of Eurasia at least 3,000 years before any historical recordings of pandemics.

ROBEL 2015

Alexander Robel, *The long future of Antarctic melting*. [nature](#) **526** (2015), 327–328.

Simulations show that melting of the Antarctic ice sheet in response to climate change could raise the global sea level by up to 3 metres by the year 2300 and continue for thousands of years thereafter.

Colledge and colleagues¹ present multi-millennial ice-sheet simulations in which Antarctica continues to contribute significantly to global mean sea-level rise for

more than 1,000 years, long after ocean and air temperatures have stopped increasing. The authors' simulations also show that iceshelf melting driven by ocean warming over the next 100–300 years is a critical factor in determining the total future rise in global sea level.

SCHILKE 2015

Oliver Schilke, Martin Reimann & Karen S. Cook, *Power decreases trust in social exchange*. [PNAS 112 \(2015\), 12950–12955](#).

How does lacking vs. possessing power in a social exchange affect people's trust in their exchange partner? An answer to this question has broad implications for a number of exchange settings in which dependence plays an important role. Here, we report on a series of experiments in which we manipulated participants' power position in terms of structural dependence and observed their trust perceptions and behaviors. Over a variety of different experimental paradigms and measures, we find that more powerful actors place less trust in others than less powerful actors do. Our results contradict predictions by rational actor models, which assume that low-power individuals are able to anticipate that a more powerful exchange partner will place little value on the relationship with them, thus tends to behave opportunistically, and consequently cannot be trusted. Conversely, our results support predictions by motivated cognition theory, which posits that lowpower individuals want their exchange partner to be trustworthy and then act according to that desire. Mediation analyses show that, consistent with the motivated cognition account, having low power increases individuals' hope and, in turn, their perceptions of their exchange partners' benevolence, which ultimately leads them to trust.

Keywords: trust | power | social exchange | dependence | hope

Significance: Trust is pivotal to the functioning of society. This work tests competing predictions about how having low vs. high power may impact people's tendency to place trust in others. Using different experimental paradigms and measures and confirming predictions based on motivated cognition theory, we show that people low in power are significantly more trusting than more powerful people and that this effect can be explained by the constructs of hope and perceived benevolence. Our findings make important contributions to the literatures on trust, power, and motivated cognition.

Bibel

BUNIMOVITZ 2001

Shlomo Bunimovitz & Avraham Faust, *Chronological Separation, Geographical Segregation, or Ethnic Demarcation? Ethnography and the Iron Age Low Chronology*. [Bulletin of the American Schools of Oriental Research 322 \(2001\), 1–10](#).

The traditional Iron Age chronology has recently been challenged by I. Finkelstein who proposed a wholesale lowering of its dates. The cornerstone of the new chronology is the seeming absence of Philistine Monochrome pottery in 20th Dynasty Egyptian strongholds in southern Canaan and the absence of Egyptian(ized) pottery in Philistine sites. According to Finkelstein, the only viable explanation for this phenomenon is chronological. Adherents of the traditional schema, on the other hand, prefer an interpretation based on cultural segregation and reject the low chronology. Both views, however, are based on the implicit premise that there is a straightforward correlation between the extent of interaction among human

groups and the degree of similarity in their material culture. Relying on ethnographic and ethnoarchaeological evidence, we intend to show that this premise is flawed, and that restricted distribution of artifacts does not contradict interaction. This observation on human behavior is enough to cast serious doubts on the foundations and methodology of the low chronology. Furthermore, since symbolic delineation of group identity and boundaries is accentuated at times of competition, items symbolizing cultural identity may be held back in spite of interaction. As competition seems to characterize Iron I Philistia, it is highly tenable that the social meaning of the Philistine Monochrome pottery as well as of its Egyptian counterpart prevented their diffusion and adoption outside the restricted zones in which they communicated group identity and cohesion.

CLINE 2007

Eric H. Cline, *From Eden to Exile, Unraveling mysteries of the Bible*. (Washington 2007).

In this provocative yet persuasive book, now in paperback, Eric H. Cline uses the tools of his trade to examine some of the most puzzling mysteries from the Hebrew Bible and, in the process, to narrate the history of ancient Israel. Combining academic with an accessible style that has made him a favorite with readers and students alike, he lays out each mystery, evaluates all available evidence—from established fact to arguable assumption to far-fetched leap of faith—and proposes an explanation that reconciles Scripture, science, and history.

CLINE 2009

Eric H. Cline, *Biblical archaeology, A very short introduction*. (Oxford 2009).

Public interest in biblical archaeology is at an all-time high. This compact introduction offers a passport into this fascinating realm, where ancient religion and modern science meet, and where tomorrow's discovery may answer a riddle that has lasted a thousand years. Archaeologist Eric H. Cline here offers a complete overview of this exciting field. He discusses the early pioneers, such as Sir William Matthew Flinders Petrie and William Foxwell Albright, the origins of biblical archaeology as a discipline, and the major controversies that first prompted explorers to go in search of objects and sites that would "prove" the Bible. He then surveys some of the most well-known biblical archaeologists, including Kathleen Kenyon and Yigael Yadin, the sites that are essential sources of knowledge for biblical archaeology, such as Hazor, Megiddo, Gezer, Lachish, Masada, and Jerusalem, and some of the most important discoveries that have been made, including the Dead Sea Scrolls, the Mesha Inscription, and the Tel Dan Stele. Subsequent chapters examine additional archaeological finds that shed further light on the Hebrew Bible and New Testament, the issue of potential frauds and forgeries, including the James Ossuary and the Jehoash Tablet, and future prospects of the field.

DEVER 2003

William G. Dever, *Visiting the Real Gezer, A Reply to Israel Finkelstein*. *Tel Aviv: Archaeology* **30** (2003), 259–282.

This article is a reply to Israel Finkelstein's 'Gezer Revisited and Revised' (*Tel Aviv* 29:262–296). It is an attempt to address the methodological issues posed there, as well as to refute Finkelstein's reconstruction of the site's stratigraphy and history. In particular, it defends the over-all Gezer project by placing it in both the context of the archaeology of the 1960s-1970s and contemporary archaeological scholarship.

FINKELSTEIN 2002

Israel Finkelstein, *Gezer revisited and revised*. [Tel Aviv: Archaeology 29 \(2002\), 262–296](#).

At Gezer, the Iron Age II starts with Stratum VIII, dated to the 10th century BCE according to the conventional chronology, but to the early 9th century BCE according to the Low Chronology system (Finkelstein 1996b). Except for the Outer Wall (see below), Iron II remains were unearthed in four fields: II, III (the gate, unpublished), VI and VII (unpublished).

The layout of Stratum VIII – the Omride city according to my interpretation (Finkelstein 2000) – remains enigmatic. The main elements belonging to this settlement are the four-entry gate, a section of a casemate wall running from the gate in both eastern and western directions and a public building adjacent to the gate ('Palace 10,000' – Dever 1985).

Strata VII-VI represent the high days of the Northern Kingdom in the 8th century BCE. The Outer Wall, which was built at that time (see the latest in Finkelstein 1994), served two purposes: a defence system and a sort of a revetment, which aimed at extending the periphery of the city. As a fortification, the Outer Wall surrounded the entire site, with Macalister's 'Gatehouse' constructed in the south. The four-entry gate of Stratum VIII was rebuilt as a three-entry gate (Dever et. al. 1971:118) and incorporated in the new system (Ussishkin 1990:77). A double gate was thus formed, similar to the situation in Megiddo IVA, Dan, Lachish and Tel Batash (e.g., Ussishkin 1990:77).

The extraordinary prosperity of Iron II Gezer is reflected in its countryside. About 50 sites have been recorded there, with a total built-up area of 50 hectares (including Gezer; Shavit 2000:217–219). These numbers must represent a gradual growth, which started in the 9th century BCE and reached a peak in the mid-8th.

FINKELSTEIN 2003

Israel Finkelstein & Eli Piasezky, *Wrong and Right, High and low ¹⁴C dates from Tel Rehov and Iron Age chronology*. [Tel Aviv: Archaeology 30 \(2003\), 283–295](#).

Bruins, van der Plicht and Mazar (2003a) recently presented a new set of ¹⁴C measurements from Tel Rehov and interpret them as supporting at least part of the conventional chronology system for the Iron Age strata in the Levant. The present article takes issue with the provenance of the samples and with Bruins, van der Plicht and Mazar's methodology, historical arguments and interpretation of the measurements using the calibration curve. The article shows that the new readings from Tel Rehov far from support the conventional chronology. First, there is an alternative interpretation for the readings from Tel Rehov V, which falls in the very late 10th century BCE. Second, Tel Rehov IV is the contemporary of Megiddo VA (VA-IVB) and hence the latter, with its ashlar palaces, must be dated to the first half of the 9th century BCE. This means that the new Tel Rehov measurements support the most important component of the Low Chronology system.

FINKELSTEIN 2004

Israel Finkelstein & Nadav Na'aman, *The Judahite Shephelah in the late 8th and early 7th centuries BCE*. [Tel Aviv: Archaeology 31 \(2004\), 60–79](#).

In a recent article, Blakely and Hardin (2002) reviewed the results of excavations at several sites in the Shephelah and Beersheba Valley and interpreted them as evidence of an early Assyrian attack by Tiglath-pileser III on Judah. This study

questions their proposal from both the archaeological and textual perspectives. It suggests an alternative interpretation, according to which the sites under discussion were devastated by Sennacherib in 701 BCE and partly reoccupied in the early 7th century, in the days of Manasseh.

GARFINKEL 2015

Yosef Garfinkel, Katharina Streit, Saar Ganor & Paula J. Reimer, *King David's City at Khirbet Qeiyafa, Results of the Second Radiocarbon Dating Project*. *Radiocarbon* **57** (2015), 881–890.

Seventeen samples of burnt olive pits discovered inside a jar in the destruction layer of the Iron Age city of Khirbet Qeiyafa were analyzed by accelerator mass spectrometry (AMS) radiocarbon dating. Of these, four were halved and sent to two different laboratories to minimize laboratory bias. The dating of these samples is \approx 1000 BC. Khirbet Qeiyafa is currently the earliest known example of a fortified city in the Kingdom of Judah and contributes direct evidence to the heated debate on the biblical narrative relating to King David. Was he the real historical ruler of an urbanized state-level society in the early 10th century BC or was this level of social development reached only at the end of the 8th century BC? We can conclude that there were indeed fortified centers in the Davidic kingdom from the studies presented. In addition, the dating of Khirbet Qeiyafa has far-reaching implications for the entire Levant. The discovery of Cypriot pottery at the site connects the ^{14}C datings to Cyprus and the renewal of maritime trade between the island and the mainland in the Iron Age. A stone temple model from Khirbet Qeiyafa, decorated with triglyphs and a recessed doorframe, points to an early date for the development of this typical royal architecture of the Iron Age Levant.

GILBOA 2004

Ayelet Gilboa, Ilan Sharon & Jeffrey Zorn, *Dor and Iron Age Chronology, Scarabs, Ceramic Sequence and ^{14}C* . *Tel Aviv: Archaeology* **31** (2004), 32–79.

Recently, Stefan Münzer proposed that Egyptian so-called ‘mass-produced’ stamp-seal amulets may be traced to a Tanite origin and dated to the late 21st – early 22nd Egyptian Dynasties. Among these, it has been suggested that some scarabs bear the name of Siamun of the late 21st Dynasty, who ruled in the first half of the 10th century BCE. Since in Palestine these scarab seals first occur in late Iron Age I contexts, Münzer suggests that they corroborate the ‘low Iron Age chronology’, which incorporates most of the 10th century in Iron Age I rather than in Iron Age II. The site of Tel Dor, on Israel's Carmel coast, produced the best stratified group of these scarabs, including one that was identified as bearing the name Siamun. This paper elucidates the archaeological context of these finds and discusses their chronological repercussions vis-a-vis Münzer's proposal.

HERZOG 2004

Ze'ev Herzog & Lily Singer-Avitz, *Redefining the Centre, The Emergence of State in Judah*. *Tel Aviv: Archaeology* **31** (2004), 209–244.

Analysis of settlement traits in Judah during the Iron Age IIA generates fresh insight into the process of state formation in the Kingdom of Judah. Our conclusions are based on observation of the settlement patterns, combined with detailed review of the pottery typology. Instead of assigning the Iron Age IIA to a single century (10th century BCE in traditional High Chronology or 9th in Finkelstein's Low Chronology), we maintain that the period covers about 150–200 years, from the mid 10th to the late 9th or mid 8th centuries BCE. The period is further

divided into two sub-phases: the Early Iron Age IIA, characterized by rural settlements, mostly organized in an ‘enclosed settlement’ pattern, and Late Iron Age IIA, which presents the first introduction of fortifications and water supply systems. Such understanding reduces the gap between the debated low and high chronology. Furthermore, the process did not emerge in the Judean hill country but rather in the Shephelah and in the Beersheba Valley to the south. Our analysis points to a long and gradual process of socio-economic crystallization of the monarchy.

HOLLADAY 1990

John S. Holladay, Jr., *Red Slip, Burnish, and the Solomonic Gateway at Gezer*. [Bulletin of the American Schools of Oriental Research](#) **277** (1990), 23–70.

The introduction of burnishing on red slips has long been held to mark a crucial, though not easily dated, stage in early Iron Age Palestinian cultural evolution. Differing chronological assumptions concerning the introduction of red slips and burnishing on those slips have led to confusion in the dating of later Iron I and early Iron II stratigraphy. Within the larger stratigraphy of Gezer, the finely detailed stratigraphic succession in and beneath the “Solomonic” (inner) gateway documents the introduction of burnished red slips in a closely datable context. The larger site-wide context affords an improved relative date for the earlier introduction of unburnished red slips. Following correlation with the Tell Qasile materials, this article establishes the broader stratigraphic affinities of the Gezer materials and explores simple statistical techniques for objectively determining relative dates of closely related archaeological strata.

KLETTNER 2014

Raz Kletter, *Vessels and Measures, The Biblical Liquid Capacity System*. [Israel Exploration Journal](#) **64** (2014), 22–37.

This paper criticises recent studies concerning the bath and other biblical liquid capacity measures, which call for their ‘deconstruction’. Fundamental issues of metrology are addressed: Were there exact measures in antiquity? How was capacity measured? Were lmlk jars ‘measured’? What are the differences between dry and liquid, ‘approximate’ and ‘exact’ measures? Why are measures ‘just’ or ‘honest’? Did temples employ completely different measures from those of the society as a whole? What is the relation between ‘measures’ and ‘vessels’?

MAZAR 2011

Amihai Mazar, *The Iron Age Chronology Debate: Is the Gap Narrowing? Another Viewpoint*. [Near Eastern Archaeology](#) **74** (2011), 105–111.

The conventional date of circa 1000 b.c.e. for the transition from Iron I to Iron II was challenged by the Low Chronology system, wherein Finkelstein’s initial suggestion to move all tenth-century b.c.e. contexts to the ninth century, and thus change the entire archaeological profile of the tenth century b.c.e., was later supported by Sharon, Gilboa, Jull, and Boaretto (2007), based on the results of their Iron Age Dating Project as estimated by Bayesian models.

NA’AMAN 2002

Nadav Na’aman, *In Search of Reality Behind the Account of David’s Wars with Israel’s Neighbours*. [Israel Exploration Journal](#) **52** (2002), 200–224.

In summary, it is clear that the history of David's wars with Israel's neighbours reflects a reality that is quite different from that of the seventh-early sixth century BCE. I have tried to show that the Deuteronomist worked on the basis of early sources, the earliest account—which I have termed 'the chronicle of early Israelite kings'—probably having been written in the first half of the eighth century BCE. His sources enabled him to base his work on relatively early data, some of which antedated his time by centuries. However, very little of this data may tentatively be assigned to the time of the historical David. I therefore suggest that the detailed history of David, including his wars and achievements, be left in the hands of able writers and novelists who can make full use of the magnificent narratives of the life and adventures of this great literary hero who lived and operated at the dawn of Israelite history.

STEMBERGER 1972

Günter Stemberger, *Das Problem der Auferstehung im Alten Testament*. *Kairos* **14** (1972), 273–290.

Wie die Rabbinen ihren Auferstehungsglauben vielfach erst in die Schrift hineingelesen haben, so haben auch die Kirchenväter und ebenso christliche Exegeten den Glauben an die Auferstehung in vielen Texten des Alten Testaments gefunden, die durchaus nicht diesen Gedanken ausdrücken. Von daher stellt sich die Frage, welche Texte des hebräischen Alten Testaments tatsächlich den Gedanken der Auferstehung belegen.

ZERTAL 1987

Adam Zertal, *An early Iron Age cultic site on Mount Ebal, Excavation seasons 1982–1987*. *Tel Aviv: Archaeology* **13** (1987), 105–165.

Klima

FLOHR 2015

Pascal Flohr, Dominik Fleitmann, Roger Matthews, Wendy Matthews & Stuart Black, *Evidence of resilience to past climate change in Southwest Asia, Early farming communities and the 9.2 and 8.2 ka events*. *Quaternary Science Reviews* (2015), preprint, 1–17. DOI:10.1016/j.quascirev.2015.06.022.

qsr2015-Flohr-Supplement1.pdf, qsr2015-Flohr-Supplement2.xlsx

Climate change is often cited as a major factor in social change. The so-called 8.2 ka event was one of the most pronounced and abrupt Holocene cold and arid events. The 9.2 ka event was similar, albeit of a smaller magnitude. Both events affected the Northern Hemisphere climate and caused cooling and aridification in Southwest Asia. Yet, the impacts of the 8.2 and 9.2 ka events on early farming communities in this region are not well understood. Current hypotheses for an effect of the 8.2 ka event vary from large-scale site abandonment and migration (including the Neolithisation of Europe) to continuation of occupation and local adaptation, while impacts of the 9.2 ka have not previously been systematically studied. In this paper, we present a thorough assessment of available, quality-checked radiocarbon (^{14}C) dates for sites from Southwest Asia covering the time interval between 9500 and 7500 cal BP, which we interpret in combination with archaeological evidence. In this way, the synchronicity between changes observed in the archaeological record and the rapid climate events is tested. It is shown that there is no evidence for a simultaneous and widespread collapse, large-scale

site abandonment, or migration at the time of the events. However, there are indications for local adaptation. We conclude that early farming communities were resilient to the abrupt, severe climate changes at 9250 and 8200 cal BP.

Keywords: Climate and society | Southwest Asia | Neolithic | 8.2 ka event | 9.2 ka event | Resilience

XU 2015

Xiangtao Xu, David Medvigy & Ignacio Rodriguez-Iturbe, *Relation between rainfall intensity and savanna tree abundance explained by water use strategies*. [PNAS 112 \(2015\), 12992–12996](#).

Tree abundance in tropical savannas exhibits large and unexplained spatial variability. Here, we propose that differentiated tree and grasswater use strategies can explain the observed negative relation between maximum tree abundance and rainfall intensity (defined as the characteristic rainfall depth on rainy days), and we present a biophysical tree–grass competition model to test this idea. The model is founded on a premise that has been well established in empirical studies, namely, that the relative growth rate of grasses is much higher compared with trees in wet conditions but that grasses are more susceptible to water stress and lose biomass more quickly in dry conditions. The model is coupled with a stochastic rainfall generator and then calibrated and tested using field observations from several African savanna sites. We show that the observed negative relation between maximum tree abundance and rainfall intensity can be explained only when differentiated water use strategies are accounted for. Numerical experiments reveal that this effect is more significant than the effect of root niche separation. Our results emphasize the importance of vegetation physiology in determining the responses of tree abundance to climate variations in tropical savannas and suggest that projected increases in rainfall intensity may lead to an increase in grass in this biome.

Keywords: savanna | tree abundance | rainfall intensity | plant water use | competition

Significance: Savannas account for 20 % of global land area and support 30 % of terrestrial net primary production. The biome is characterized by the coexistence of trees and grasses. Tree abundance strongly influences savanna ecosystem dynamics. Maximum tree abundance in tropical savannas is found to be negatively correlated with rainfall intensity, which remains unexplained. Through combining in situ observations, a biophysical tree–grass competition model, and a stochastic rainfall generator, we present that differentiated tree and grass water use strategies are essential to explain the phenomenon. Our findings show the importance of vegetation physiology in determining tree abundance in the biome and enhance our ability to predict future ecosystem composition and dynamics under global change.

Kupfer

FITZPATRICK 2009

Andrew Fitzpatrick, *In his hands and in his head, The Amesbury Archer as a metalworker*. In: PETER CLARK (Hrsg.), *Bronze Age Connections, Cultural Contact in Prehistoric Europe*. ([Oxford 2009](#)), 176–188.

This paper has touched on just a few of the things that can be said about the Amesbury Archer. The high status afforded him is consistent with those of early metalworkers in some other regions in temperate Europe, with their knowledge of and access to the magic that was metal, and their ability to turn it into goods and to control access to them.

But, coming from far away, the Archer would also have brought knowledge of a wider world and this may have added to any aura that surrounded him. Around Britain and Ireland sites such as Ross Island and burials such as the Boscombe Bowmen show that other journeys were being made. But unlike that Bronze Age archetype Ulysses, the Archer did not return from his Copper Age journey. Instead a family was raised. But the place at which he settled would have been known far away as a place of great religious importance.

The temptation to romanticise the story of the Amesbury Archer should be eschewed. And in themselves, magic and myth as abstract concepts do not provide an explanation, but they have a role to play in trying to understand the story of the Amesbury Archer and his Copper Age Connections.

Methoden

KOT 2013

Małgorzata Anna Kot & Maciej Biłas, *Gobbledygook, or not?* In: BARBARA BOKUS (Hrsg.), *Responsibility, A cross-disciplinary perspective*. (2013), 281–292.

<http://www.academia.edu/attachments/39=MTQONTUyMjA2NSw4Ny4xODQuMTQ3LjM4LDg2MTc2NQ%3D%3D&s=profile>

Politik

FISCHER 2015

Thomas Fischer, *Geldwäsche: Woher haben Sie dieses Geld?* [Die Zeit 2015, Oct. 13.](#)

Die andere Schlussfolgerung ist näherliegend, aber auch nicht schöner: Der Gesetzgeber weiß das alles, tut aber trotzdem nichts. Grund: Er verfolgt Ziele, die mit dem Strafgesetz gar nichts zu tun haben. Zum Beispiel, jeden und jede jederzeit beschuldigen zu können, weil sich Strafbarkeit und Sozialadäquanz gar nicht mehr unterscheiden lassen. Wenn alle verdächtig sind, kann man die Schraube fast beliebig anziehen oder lockerlassen. Man kann gegen jedermann alle Möglichkeiten der Überwachung und Durchleuchtung anwenden, wann immer man will. Man kann die gesamte Wirtschaft überwachen. Straftatbestände, die so weit sind, daß dem Bürger kaum eine Möglichkeit bleibt, sich nicht strafbar zu machen, sind – nach Artikel 103 Abs. 2 Grundgesetz – verfassungswidrig.

Religion

BREMMER 2002

Jan N. Bremmer, *The Rise and Fall of the Afterlife, The 1995 Read-Tuckwell lectures at the University of Bristol*. (London 2002).

Belief in the afterlife is still very much alive in Western civilisation, even though the truth of its existence is no longer universally accepted. Surprisingly, however, heaven, hell and the immortal soul were all ideas which arrived relatively late in the ancient world. Originally Greece and Israel – the cultures that gave us Christianity – had only the vaguest ideas of an afterlife. So where did these concepts come from and why did they develop? In this fascinating, learned, but highly readable book, Jan N. Bremmer – one of the foremost authorities on ancient religion – takes a fresh look at the major developments in the Western imagination of the afterlife, from the ancient Greeks to the modern near-death experience.

Story or Book

DEVER 2001

William G. Dever, *The Bible Unearthed*. [Biblical Archaeology Review](#) **27** (2001), ii, 60–63.

The Bible Unearthed: Archaeology's New Vision of Ancient Israel and the Origin of Its Sacred Texts. Israel Finkelstein and Neil Asher Silberman. (New York: Free Press, 2000) 304 pp., \$26.00 (hardback)

According to authors Israel Finkelstein (codirector of the Megiddo excavation) and archaeological journalist Neil Asher Silberman, nearly all histories of ancient Israel, even the most modern, have been little more than paraphrases of the Hebrew Bible that perpetuate an invented Israel.

In the authors' view, the only way to correct this skewed picture is archaeology, where recent discoveries have proven that the "patriarchal era" is not historical; that the "Exodus" and "conquest" never happened; that Saul, David and Solomon were little more than tribal chiefs; that Judah did not become a real kingdom until about 700 B.C. (after the Assyrians had destroyed Israel in the north); and that the Bible, which was not produced until this latter period, is a "treasury of ancient memories, fragmentary histories, and rewritten legends."

They mention few scholars by name and include not a single footnote or specific reference that leads the reader to the relevant literature or, especially, to the archaeological evidence that is so crucial (there is only a general reading list at the end). What we have in *The Bible Unearthed* is an ideological manifesto, not judicious, well-balanced scholarship. Even the non-specialist deserves better.