

References

Aktuell

AHMAD 2015

A. S. Ahmad, N. Ormiston-Smith & P. D. Sasieni, *Trends in the lifetime risk of developing cancer in Great Britain: comparison of risk for those born from 1930 to 1960*. [British Journal of Cancer 112 \(2015\), 943–947](#).

Background: Typically, lifetime risk is calculated by the period method using current risks at different ages. Here, we estimate the probability of being diagnosed with cancer for individuals born in a given year, by estimating future risks as the cohort ages.

Methods: We estimated the lifetime risk of cancer in Britain separately for men and women born in each year from 1930 to 1960. We projected rates of all cancers (excluding non-melanoma skin cancer) and of all cancer deaths forwards using a flexible ageperiodcohort model and backwards using age-specific extrapolation. The sensitivity of the estimated lifetime risk to the method of projection was explored.

Results: The lifetime risk of cancer increased from 38.5% for men born in 1930 to 53.5% for men born in 1960. For women it increased from 36.7 to 47.5%. Results are robust to different models for projections of cancer rates.

Conclusions: The lifetime risk of cancer for people born since 1960 is >50%. Over half of people who are currently adults under the age of 65 years will be diagnosed with cancer at some point in their lifetime.

BALTER 2015

Michael Balter & Ann Gibbons, *Indo-European languages tied to herders*. [science 347 \(2015\), 814–815](#).

Ancient migration from the east shaped European genome and language.

Meanwhile, Renfrew is holding steady to his Anatolian hypothesis. The movement out of the steppes seen in the ancient DNA data, he says, “may be a secondary migration into central Europe, 3000 to 4000 years later than the spread of farmers which first brought Indo-European speech to Europe.” In that case, the Yamnaya people may have spoken not PIE, but an already derived Indo-European tongue ancestral to today’s Balto-Slavic languages such as Russian and Polish.

Even Reich and his colleagues seem to be hedging their bets. Their preprint carefully states that the steppe was the source of “at least some,” rather than all, of the Indo-European languages. The team suggests that more ancient DNA, especially from east of the steppes, may finally tie our linguistic history with our genes.

CORTES BARRAGAN 2015

Rodolfo Cortes Barragan & Carol S. Dweck, *Social experience can illuminate early-emerging behaviors, Reply to Warneken*. [PNAS 112 \(2015\), E1053](#).

Our studies revealed high levels of altruism in young children only after a reciprocal interaction with the experimenter. When children had had highly similar and

friendly—but nonreciprocal—play experiences with the experimenter, subsequent levels of altruism were alarmingly low, even though the experimenter’s bids for help were strong. Others, too, have found relatively low levels of altruism in young children.

Many researchers, like Warneken, readily interpret early-emerging behaviors as inherent and unlearned because there has been no direct teaching of the behaviors. By contrast, we suggest that there are numerous routes to early learning, aside from direct tuition. For example, 1-y-olds have rich mental representations of their attachment relationships with caregivers, despite no direct tuition.

CRISPIN 2009

A. Crispin, B. Birkner, A. Munte, G. Nusko & U. Mansmann, *Process quality and incidence of acute complications in a series of more than 230 000 outpatient colonoscopies*. *Endoscopy* **41** (2009), 1018–1025.

Background and study aims: Data on process quality and complications of colonoscopies are sparse, especially for the screening setting. We describe process quality in routine care, estimate the incidence of acute complications, and identify risk indicators for substandard care and complications.

Patients and methods: We analyzed data from 236087 compulsory health insurance (CHI) members who underwent colonoscopies in 2006. Data were documented prospectively in the Electronic Colonoscopy Documentation of the Bavarian Association of CHI Physicians, a registry of outpatient colonoscopies performed in practices throughout Bavaria, Germany. It covers demographic characteristics, indications, quality indicators, macroscopic and histological findings, diagnoses, and acute complications.

Results: Colon preparation resulted in clear bowels in 76.31 % of patients, liquid residues in 22.22 %, and dirty bowels in 1.47 %. In total, 92.85 % of the examinations were performed with patients under sedation/analgesia and 97.43 % of colonoscopies were complete. Photodocumentation was present for 98.87 %. Male sex, middle age, screening, satisfactory bowel preparation, and sedation/analgesia were associated with completeness. A total of 735 patients (0.31 %) suffered complications, among them 520 bleedings (0.22 %), 69 perforations (0.03 %), and 152 cardiorespiratory complications (0.06 %). Male sex, higher age, nonscreening indication, biopsies, polypectomies, and absence of sedation/analgesia were indicative of a higher bleeding risk. Perforations were also related to biopsies and polypectomies. Higher age was the only discernible risk indicator for cardiorespiratory events.

Conclusions: Outpatient colonoscopy is a safe procedure with a low risk of acute complications. Improving bowel preparation enhances completeness. Sedation/analgesia is conducive to both completeness and the lowering of the risk of acute complications.

JAMBECK 2015

Jenna R. Jambeck et al., *Plastic waste inputs from land into the ocean*. *science* **347** (2015), 768–771.

s347-0768-Supplement.pdf

Jenna R. Jambeck, Roland Geyer, Chris Wilcox, Theodore R. Siegler, Miriam Perryman, Anthony Andrady, Ramani Narayan & Kara Lavender Law

Plastic debris in the marine environment is widely documented, but the quantity of plastic entering the ocean from waste generated on land is unknown. By linking worldwide data on solid waste, population density, and economic status, we estimated the mass of land-based plastic waste entering the ocean. We calculate that

275 million metric tons (MT) of plastic waste was generated in 192 coastal countries in 2010, with 4.8 to 12.7 million MT entering the ocean. Population size and the quality of waste management systems largely determine which countries contribute the greatest mass of uncaptured waste available to become plastic marine debris. Without waste management infrastructure improvements, the cumulative quantity of plastic waste available to enter the ocean from land is predicted to increase by an order of magnitude by 2025.

KEMP 2015

Brian M. Kemp, John Lindo, Deborah A. Bolnick, Ripan S. Malhi & James C. Chatters, *Late Pleistocene human skeleton and mtDNA link Paleoamericans and modern Native Americans*, *Response to Comment. science* **347** (2015), 835.

Prüfer and Meyer raise concerns over the mitochondrial DNA (mtDNA) results we reported for the Hoyo Negro individual, citing failure of a portion of these data to conform to their expectations of ancient DNA (aDNA). Because damage patterns in aDNA vary, outright rejection of our findings on this basis is unwarranted, especially in light of our other observations.

PRÜFER 2015

Kay Prüfer & Matthias Meyer, *Comment on “Late Pleistocene human skeleton and mtDNA link Paleoamericans and modern Native Americans”*. *science* **347** (2015), 835.

Chatters et al. (Reports, 16 May 2014, p. 750) reported the retrieval of DNA sequences from a 12,000- to 13,000-year-old human tooth discovered in an underwater cave in Mexico’s Yucatan peninsula. They propose that this ancient human individual’s mitochondrial DNA (mtDNA) belongs to haplogroup D1. However, our analysis of postmortem damage patterns finds no evidence for an ancient origin of these sequences.

SAMBLES 2015

J. R. Sambles, *Structured photons take it slow*. *science* **347** (2015), 828.

Specially prepared single photons travel below the “speed of light,” even in vacuum.

One might wonder if there are any implications for the early universe, when light may have been in highly entangled states with appreciable transverse structure and then may not have traveled at c . Or one might consider a situation where there is simultaneous cocreation of light and lowmass particles. Is it possible for the particles to arrive sooner than the light because they had lateral (Gaussian) character? Finally, if photons with lateral structure travel at less than c , what about gravitons, and are there any implications?

TRAFIMOW 2015

David Trafimow & Michael Marks, *Psychology journal bans P values, Test for reliability of results ‘too easy to pass’, say editors*. *Basic and Applied Social Psychology* **37** (2015), 1–2.

The Basic and Applied Social Psychology (BASP) 2014 Editorial emphasized that the null hypothesis significance testing procedure (NHSTP) is invalid, and thus authors would be not required to perform it (Trafimow, 2014). The purpose of the present Editorial is to announce that the grace period is over. From now on, BASP is banning the NHSTP.

[W]e believe that the $p < .05$ bar is too easy to pass and sometimes serves as an excuse for lower quality research. We hope and anticipate that banning the NHSTP will have the effect of increasing the quality of submitted manuscripts by liberating authors from the stultified structure of NHSTP thinking thereby eliminating an important obstacle to creative thinking.

WALL 2015

Diana H. Wall & Johan Six, *Give soils their due*. [science](#) **347** (2015), 695.

Human activities have transformed soils, lands, and regions, with long-lasting effects that include desertification, decreased organic matter in soils, altered biodiversity, and changed biogeochemical and hydrological cycles. As a result, the land available for food production is shrinking, irreversibly in some cases. Converting cropland to biofuel systems and urban centers is having the same effect. Agricultural practices have increased soil erosion to rates much greater than those of soil formation (it can take up to 1000 years to form 1 cm of soil). The mismanagement of soil resources is exacerbating these assaults on the food supply.

WARNEKEN 2015

Felix Warneken, *Are social norms and reciprocity necessary for early helping?* [PNAS](#) **112** (2015), E1052.

However, the authors also argue that these results challenge the hypothesis that early helping may have a biological basis, and does not emerge as a result of socialization alone.

Thus, a more parsimonious account of their finding is that children respond more positively when individuals actually engage with them socially and let them play with the same toys than when the adults have children play by themselves. This result may not reflect “far subtler forms of reciprocity”; indeed, it may not be reciprocity at all.

WARREN 2009

Joan L. Warren et al., *Adverse Events After Outpatient Colonoscopy in the Medicare Population*. [Annals of Internal Medicine](#) **150** (2009), 849–857.

Joan L. Warren, Carrie N. Klabunde, Angela B. Mariotto, Angela Meekins, Marie Topor, Martin L. Brown & David F. Ransohoff

Background: Although use of colonoscopy has increased substantially among elderly Medicare beneficiaries, no one has described colonoscopy-related adverse events in a representative sample of Medicare patients.

Objective: To determine risk for adverse events after outpatient colonoscopy in elderly patients.

Design: Population-based, matched cohort study.

Setting: Surveillance, Epidemiology, and End Results cancer registry areas.

Patients: Random 5% sample of Medicare beneficiaries, age 66 to 95 years, who underwent outpatient colonoscopy between 1 July 2001 and 31 October 2005 (n = 53 220), matched with beneficiaries who did not have colonoscopy.

Measurements: Medicare claims were used to measure the rate of serious gastrointestinal events (bleeding and perforation), other gastrointestinal events, and cardiovascular events resulting in a hospitalization or emergency department visit within 30 days after colonoscopy compared with matched beneficiaries who did not have colonoscopy. Logistic regression was used to estimate adjusted predictive risks for adverse events and to assess whether these events varied by age, comorbid conditions, or type of colonoscopy.

Results: Persons undergoing colonoscopy had a higher risk for adverse gastrointestinal events than their matched group. Rates of adverse events after colonoscopy increased with age. Patients having polypectomy had higher risk for all adverse events compared with their matched group and with the screening and diagnostic colonoscopy groups. Comorbid conditions increased the risk for adverse events. Patients with a history of stroke, chronic obstructive pulmonary disease, atrial fibrillation, or congestive heart failure had significantly higher risk for serious gastrointestinal events.

Limitation: The analysis relied on the diagnosis and procedure codes recorded on the Medicare claims.

Conclusion: Risks for adverse events after outpatient colonoscopy among elderly Medicare beneficiaries were low; however, they increased with age with specific comorbid conditions and depending on whether polypectomy was done. These data may inform decisions on whether to perform colonoscopy in persons of advanced age or those with comorbid conditions.

WEBB 2015

Alexandra R. Webb, Howard T. Heller, Carol B. Benson & Amir Lahav, *Mother's voice and heartbeat sounds elicit auditory plasticity in the human brain before full gestation*. [PNAS 112 \(2015\), 3152–3157](#).

Brain development is largely shaped by early sensory experience. However, it is currently unknown whether, how early, and to what extent the newborn's brain is shaped by exposure to maternal sounds when the brain is most sensitive to early life programming. The present study examined this question in 40 infants born extremely prematurely (between 25- and 32-wk gestation) in the first month of life. Newborns were randomized to receive auditory enrichment in the form of audio recordings of maternal sounds (including their mother's voice and heartbeat) or routine exposure to hospital environmental noise. The groups were otherwise medically and demographically comparable. Cranial ultrasonography measurements were obtained at 30 ± 3 d of life. Results show that newborns exposed to maternal sounds had a significantly larger auditory cortex (AC) bilaterally compared with control newborns receiving standard care. The magnitude of the right and left AC thickness was significantly correlated with gestational age but not with the duration of sound exposure. Measurements of head circumference and the widths of the frontal horn (FH) and the corpus callosum (CC) were not significantly different between the two groups. This study provides evidence for experience-dependent plasticity in the primary AC before the brain has reached full-term maturation. Our results demonstrate that despite the immaturity of the auditory pathways, the AC is more adaptive to maternal sounds than environmental noise. Further studies are needed to better understand the neural processes underlying this early brain plasticity and its functional implications for future hearing and language development.

Keywords: auditory | brain | mother's voice | heartbeat | preterm newborns

Significance: Newborns can hear their mother's voice and heartbeat sounds before birth. However, it is unknown whether, how early, and to what extent the newborn's brain is shaped by exposure to such maternal sounds. This study provides evidence for experiencedependent plasticity in the auditory cortex in preterm newborns exposed to authentic recordings of maternal sounds before fullterm brain maturation. We demonstrate that the auditory cortex is more adaptive to womb-like maternal sounds than to environmental noise. Results are supported by the biological fact that maternal sounds would otherwise be present in utero had the baby not been born prematurely. We theorize that exposure to maternal sounds

may provide newborns with the auditory fitness necessary to shape the brain for hearing and language development.

ZAUBER 2012

Ann G. Zauber et al., *Colonoscopic Polypectomy and Long-Term Prevention of Colorectal-Cancer Deaths*. *New England Journal of Medicine* **366** (2012), 687–696.

NEJMed366-0687-Supplement1.pdf, NEJMed366-0687-Supplement2.pdf

Ann G. Zauber, Ph.D., Sidney J. Winawer, M.D., Michael J. O'Brien, M.D., M.P.H., Iris Lansdorp-Vogelaar, Ph.D., Marjolein van Ballegooijen, M.D., Ph.D., Benjamin F. Hankey, Sc.D., Weiji Shi, M.S., John H. Bond, M.D., Melvin Schapiro, M.D., Joel F. Panish, M.D., Edward T. Stewart, M.D., and Jerome D. Wayne, M.D.

BACKGROUND In the National Polyp Study (NPS), colorectal cancer was prevented by colonoscopic removal of adenomatous polyps. We evaluated the long-term effect of colonoscopic polypectomy in a study on mortality from colorectal cancer.

METHODS We included in this analysis all patients prospectively referred for initial colonoscopy (between 1980 and 1990) at NPS clinical centers who had polyps (adenomas and nonadenomas). The National Death Index was used to identify deaths and to determine the cause of death; follow-up time was as long as 23 years. Mortality from colorectal cancer among patients with adenomas removed was compared with the expected incidence-based mortality from colorectal cancer in the general population, as estimated from the Surveillance Epidemiology and End Results (SEER) Program, and with the observed mortality from colorectal cancer among patients with nonadenomatous polyps (internal control group).

RESULTS Among 2602 patients who had adenomas removed during participation in the study, after a median of 15.8 years, 1246 patients had died from any cause and 12 had died from colorectal cancer. Given an estimated 25.4 expected deaths from colorectal cancer in the general population, the standardized incidence-based mortality ratio was 0.47 (95% confidence interval [CI], 0.26 to 0.80) with colonoscopic polypectomy, suggesting a 53% reduction in mortality. Mortality from colorectal cancer was similar among patients with adenomas and those with nonadenomatous polyps during the first 10 years after polypectomy (relative risk, 1.2; 95% CI, 0.1 to 10.6).

CONCLUSIONS These findings support the hypothesis that colonoscopic removal of adenomatous polyps prevents death from colorectal cancer. (Funded by the National Cancer Institute and others.)

Anthropologie

SPOOR 2015

Fred Spoor, Philipp Gunz, Simon Neubauer, Stefanie Stelzer, Nadia Scott, Amandus Kwiekason & M. Christopher Dean, *Reconstructed Homo habilis type OH 7 suggests deep-rooted species diversity in early Homo*. *nature* **519** (2015), 83–86.

n519-0083-Supplement.pdf

Besides *Homo erectus* (sensu lato), the eastern African fossil record of early *Homo* has been interpreted as representing either a single variable species, *Homo habilis*1, or two species2–6. In the latter case, however, there is no consensus over the respective groupings, and which of the two includes OH7, the 1.8-million-year-old *H. habilis* holotype7. This partial skull and hand from Olduvai Gorge

remains pivotal to evaluating the early evolution of the Homolineage, and by priority names one or other of the two taxa. However, the distorted preservation of the diagnostically important OH7 mandible has hindered attempts to compare this specimen with other fossils^{8,9}. Here we present a virtual reconstruction of the OH7 mandible, and compare it to other early Homo fossils. The reconstructed mandible is remarkably primitive, with a long and narrow dental arcade more similar to *Australopithecus afarensis* than to the derived parabolic arcades of *Homo sapiens* or *H. erectus*. We find that this shape variability is not consistent with a single species of early Homo. Importantly, the jaw morphology of OH 7 is incompatible with fossils assigned to *Homo rudolfensis*⁸ and with the A.L. 666-1 *Homo* maxilla. The latter is morphologically more derived than OH 7 but 500,000 years older¹⁰, suggesting that the *H. habilis* lineage originated before 2.3 million years ago, thus marking deep-rooted species diversity in the genus *Homo*. We also reconstructed the parietal bones of OH 7 and estimated its endocranial volume. At between 729 and 824 ml it is larger than any previously published value, and emphasizes the near-complete overlap in brain size among species of early Homo. Our results clarify the *H. habilis* hypodigm, but raise questions about its phylogenetic relationships. Differences between species of early Homo appear to be characterized more by gnathic diversity than by differences in brain size, which was highly variable within all taxa.

Bibel

BERMAN 2015

Joshua Berman, *Was There an Exodus?* [Mosaic Monthly Essays 2015, Mar. 2.](#)

The case against the historicity of the exodus is straightforward, and its essence can be stated in five words: a sustained lack of evidence. Nowhere in the written record of ancient Egypt is there any explicit mention of Hebrew or Israelite slaves, let alone a figure named Moses. There is no mention of the Nile waters turning into blood, or of any series of plagues matching those in the Bible, or of the defeat of any pharaoh on the scale suggested by the Torah's narrative of the mass drowning of Egyptian forces at the sea.

[E]xcising the exodus from Judaism undercuts Judaism itself. After all, the biblical rationale for Israel's obligation to God is premised not on His identity as Creator, or on His supreme moral authority, but on the fact that the Israelite slaves in Egypt cried out to Him from their bondage and He saved them. This is the sole driving force behind the opening line of the Ten Commandments: "I am the Lord your God who took you out of Egypt, the house of bondage."

On this latter view, were there no exodus, nearly all of Judaism's sacred texts over the centuries would have perpetuated a great lie. In response to the question posed by the child at the seder meal, "How is this night different from all other nights?" a father would be obliged to reply, "Really, my child, there's no difference." And indeed, at many a contemporary seder table, a new figure has emerged: next to the son who knows not how to ask, sits the father who knows not how to answer.

In what follows I offer that father three helpings of scholarship to help him formulate an answer.

Some might conclude that the plot line of the Kadesh poem reached Israel under conditions hidden to us and, for reasons we cannot know, became incorporated into the text of Exodus many centuries down the line. Others will regard the parallels as one big coincidence. But my own conclusion is otherwise: the evidence adduced here can be reasonably taken as indicating that the poem was transmitted during the period of its greatest diffusion, which is the only period when

anyone in Egypt seems to have paid much attention to it: namely, during the reign of Ramesses II himself. In my view, the evidence suggests that the Exodus text preserves the memory of a moment when the earliest Israelites reached for language with which to extol the mighty virtues of God, and found the raw material in the terms and tropes of an Egyptian text well-known to them. In appropriating and “transvaluing” that material, they put forward the claim that the God of Israel had far outdone the greatest achievement of the greatest earthly potentate.

When Jews around the world gather on the night of Passover to celebrate the exodus and liberation from Egyptian oppression, they can speak the words of the Haggadah, “We were slaves to a pharaoh in Egypt,” with confidence and integrity, without recourse to an enormous leap of faith and with no need to construe those words as mere metaphor. A plausible reading of the evidence is on their side.

BLUM 2010

Erhard Blum, *Solomon and the United Monarchy, Some Textual Evidence*. In: REINHARD G. KRATZ & HERMANN SPIECKERMANN (Hrsg.), *One God—One Cult—One Nation, Archaeological and Biblical Perspectives*. Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft 405 (Berlin 2010), 59–78.

King Solomon’s fairy-tale like empire, representing the Golden Age of Israelite history, has long been gone – not only since the archaeological debate about Megiddo IV or the dimensions of Tenth-Century-Jerusalem.

It suffices to recollect the commentary on Kings by Martin Noth, written in the sixties of the last century. According to Noth, the present story of Solomon in 1 Kings 3–11 was mainly formed by his Deuteronomist. This exilic author composed or reworked inter alia Solomon’s dream at Gibeon (1 Kings 3), the dealings with Hiram of Tyros in 5:15–26, Solomon’s great prayer at the inauguration of the temple in 1 Kings 8, the second theophany in 1 Kings 9, and – of course – the report of Solomon’s great sin, his violation of the First commandment by building idolatrous cult places for his foreign wives (11:1–13). The deuteronomistic dynastic oracle for Jeroboam ben Nebat, given by the prophet Ahija the Shilonite, finally marks the end of the United Kingdom (11:29–39).

It is true that Noth’s Deuteronomist used some pre-exilic ‘collection’ of Solomon-traditions (perhaps the *éóáã ôõñ äñù* mentioned in 11:413), but that does not bring us back to the age of Solomon himself.

In the scope of this short study I will concentrate on the basic issue of the ‘United Kingdom’ in the time of David and Solomon. Furthermore, being trained in philological analyses I will take care not to deal with any disputed interpretation of so called ‘facts on the ground’ and will instead focus on possible exegetical contributions to the topic.

BLUM 2012

Erhard Blum, *Der historische Mose und die Frühgeschichte Israels. Hebrew Bible and Ancient Israel 1* (2012), 37–63.

The ‘Life of Moses’ is beyond the range of historiography. Nevertheless, several elements of the Moses traditions rooted in the northern Israelite heritage probably go back to the earliest history of (Proto-) Israel, partly even to a figure called ‘Moses’ or to groups in the realm of its Wirkung. These elements are mainly the name ‘Moses’ itself and the Exodus tradition on the one hand, Moses’ relations to Midian and the tradition which relates the god YHWH to Teman/Seir on the other hand. With regard to the last aspect, the epigraphic evidence from Kuntillet Ajrud proves to be of major importance.

BOLEN 2013

Todd Bolen, *The Aramean oppression of Israel in the reign of Jehu*. Dissertation, Dallas Theological Seminary ([Dallas 2013](#)).

The purpose of this dissertation is to provide a historical reconstruction of the years of Aram's oppression of Israel on the basis of the biblical texts, epigraphic discoveries, and recent archaeological excavations. While other studies have analyzed the biblical narrative of Jehu's coup or the archaeological record of Jehu's dynasty, no comprehensive studies have focused on the northern kingdom of Israel during the reign of Jehu.

BROSHI 1992

Magen Broshi & Israel Finkelstein, *The Population of Palestine in Iron Age II*. [Bulletin of the American Schools of Oriental Research](#) **287** (1992), 47–60.

The article examines the size of Palestine's population in the Iron Age II, specifically the eighth century B.C.E. In the first part the authors present an up-to-date discussion of the regional archaeological data: number of Iron II sites, their size, total built-up area, and population. The authors estimate the population for the entire country in the eighth century B.C.E. to have been ca. 400,000 people. In the second part of the article that number is evaluated against past estimates based on biblical and Assyrian sources. Finally, the authors make some general observations on demographic trends in Palestine during the third to first millennia B.C.E.

FANTALKIN 2006

Alexander Fantalkin & Israel Finkelstein, *The Sheshonq I campaign and the 8th-century bce earthquake, More on the archaeology and history of the south in the Iron I–IIA*. [Tel Aviv: Archaeology](#) **33** (2006), 18–42.

The article attempts to reconstruct the history of southern Israel (the Beersheba Valley, the Shephelah and the southern Coastal Plain) in the Late Iron I and Iron IIA. It shows that activity in the so-called 'Tel Masos chiefdom' commenced in the Iron I and peaked in the Early Iron IIA—parallel to the copper mining activity at Khirbet en-Na'as. Regarding the early phase of this time-span, the article proposes that the Sheshonq I campaign did not bring about the destruction of the Tel Masos chiefdom; rather, the major phase of activity in the south—in the Early Iron IIA—was a result of Egyptian involvement in the region. Regarding the end of the Iron IIA, the article rejects the notion that the Iron IIA–IIB transition should be affiliated with the earthquake mentioned in Amos 1: 1; it dates this transition to ca. 800 BCE.

FAUST 2010

Avraham Faust, *The Large Stone Structure in the City of David, A Reexamination*. [Zeitschrift des Deutschen Palästina-Vereins](#) **126** (2010), 116–130.

The excavations conducted by EILAT MAZAR in the City of David change many of the accepted views on biblical Jerusalem. The LSS, the most formidable finding in her excavations, is no doubt an impressive building that had an important role in Jerusalem. The archaeological results clearly show that the structure – just like its other half (the Stepped Stone Structure) – should be dated to the Iron Age I. The combined building was the main structure in Iron Age I Jerusalem

(the “Jebusite city”), and is indeed the most impressive building from this period throughout the region. The building continued to function during the Iron Age IIA (“the period of the David and Solomon”), but in this era (in which we have for the first time evidence for contacts with Phoenicia) it experienced some changes, probably as a result of the transfer of some administrative functions to another place – most likely following the building of a new palace or administrative center. It appears that after a while the area changed its function completely, and perhaps even lost its importance, and the LSS ceased to function as a public building. Although we should not underestimate the importance of the structure or the contribution of the finds to the study of the history of biblical Jerusalem, it is quite clear that the building was not the palace built for King David by the Phoenicians.

FINKELSTEIN 2006

Israel Finkelstein & Neil Asher Silberman, *Temple and Dynasty, Hezekiah, the Remaking of Judah and the Rise of the Pan-Israelite Ideology*. *Journal for the Study of the Old Testament* **30** (2006), iii, 259–285.

This article deals with the momentous events that took place in Judah in the short period of time between 732 (and mainly 722) and 701 BCE. A torrent of refugees from the North, mostly from the areas bordering on Judah, dramatically changed the demographic structure in the Southern Kingdom. The population seems to have at least doubled and included significant north Israelite communities. This situation created, in fact, a pan-Israelite state. Hezekiah reacted to this challenge in two ways, both aimed at strengthening the authority of the central government. Countryside shrines were abolished and the cult was centralized in the Jerusalem Temple, probably in an attempt to prevent the new immigrants from visiting the Bethel temple in their old homeland. In the same short period of time, the story of the early days of the Davidide dynasty was first put in writing, combining southern and northern traditions in a single national narrative.

FINKELSTEIN 2010

Israel Finkelstein, *A Great United Monarchy? Archaeological and Historical Perspectives*. In: REINHARD G. KRATZ & HERMANN SPIECKERMANN (Hrsg.), *One God—One Cult—One Nation, Archaeological and Biblical Perspectives*. Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft 405 (Berlin 2010), 3–28.

Twelve years have passed since I first presented – to the German Institute in Jerusalem – my ideas on the chronology of the Iron Age strata in the Levant and how it impacts on our understanding of the biblical narrative on the United Monarchy of ancient Israel. I was naïve enough then to believe that the logic of my ‘correction’ was straightforward and clear. Twelve years and many articles and public debates later, however, the notion of Davidic conquests, Solomonic building projects, and a glamorous United Monarchy – all based on an uncritical reading of the biblical text and in contradiction of archaeological finds – is still alive in certain quarters. This paper presents my updated views on this matter, and tackles several recent claims that archaeology has now proven the historicity of the biblical account of the great kingdom of David and Solomon.

FINKELSTEIN 2011

Israel Finkelstein, Ido Koch & Oded Lipschits, *The Mound on the Mount, A possible solution to the “problem with Jerusalem”*. *Journal of Hebrew Scriptures* **11** (2011), 12.

There are two solutions for the “problem with Jerusalem”—the fact that archaeology does not supply enough data for several periods in the second and first millennia B.C.E. which are well documented by textual material. According to the first, the acropolis, with the temple and the palace only, was located on the Temple Mount and the town itself extended over the ridge of the City of David. This means that in the Late Bronze, Iron I, Iron IIA, Persian and early Hellenistic period Jerusalem was a small, sparsely settled settlement.

In this article, we suggest a second solution to the quandary: The original mound of Jerusalem—that is, the acropolis and the settlement—which had been located on the Temple Mount, was boxed in under the Herodian platform in the late first century B.C.E. This theoretical mound could have covered a significant area of ca. 5 hectares—the size of the larger Bronze and Iron Age mounds in the hill country. It was probably fortified in the Middle Bronze Age, and again in the late Iron IIA in parallel to the fortification of important towns in the countryside of Judah, mainly Lachish, Tel Beer-sheba and Mizpah. This mound on the Temple Mount was the sole location of the town in the Middle Bronze, Late Bronze, Iron I, Iron IIA, Persian and early Hellenistic periods. In all these periods activity in the City of David was meager and restricted to the central part of the ridge, mainly its eastern side near the Gihon spring. In two periods—the Iron IIB and the late Hellenistic—the settlement expanded to include the southeastern ridge (the City of David) and the southwestern hill; the new quarters were fortified, but there was no need to build a city-wall in the western side of the City of David, as this line ran in the middle of the city.

FINKELSTEIN 2011

Israel Finkelstein & Eli Piasezky, *The Iron Age Chronology Debate, Is the Gap Narrowing?* [Near Eastern Archaeology 74](#) (2011), 50–54.

Radiocarbon investigations in recent years show beyond doubt that the Iron IIA lasted until approximately 800 b.c.e. The early-to-late Iron IIA transition should be placed in the first half of the ninth century. For the beginning of the Iron IIA (the Iron I/II transition), the differences between the debating camps have now narrowed to a few decades—a gap that is beyond the resolution of radiocarbon results, even when a large number of determinations are deployed. Introducing historical considerations as well as observations related to the pace of change of pottery traditions, the Iron I/II transition could have taken a decade or two and should be put shortly after the midtenth century b.c.e.

FINKELSTEIN 2011

Israel Finkelstein, *The “Large Stone Structure” in Jerusalem, Reality versus Yearning.* [Zeitschrift des Deutschen Palästina-Vereins 127](#) (2011), 1–10.

As things stand today:

1. There is no single LSS. There is no physical connection between half Room E, which may date to the Iron Age I or to the Iron Age IIA, and the massive walls associated by E. MAZAR, A. MAZAR and FAUST with the LSS.
2. There is no connection today between massive walls possibly dating to the Iron Age on the ridge (E. MAZAR’s LSS) and the Iron Age part of the SSS. The only physical connection is between the Hellenistic part of the SSS and the Late Hellenistic fortification.
3. Some of the massive wall stabs unearthed by E. MAZAR may date to the Iron Age IIA in the 9th century B.C.E.; others may date to the Hellenistic period.

4. Based on solid archaeological arguments alone, that is, without relying on the biblical text, no seasoned archaeologist would have associated the remains in question with monumental architecture of the 10th century B.C.E.

FINKELSTEIN 2013

Israel Finkelstein, *The Forgotten Kingdom, The archaeology and history of Northern Israel*. Ancient Near East Monographs 5 ([Atlanta 2013](#)).

Although Israel was dominant for most of the time the kingdoms of Israel and Judah coexisted, it has remained in Judah's shadow in both the Hebrew Bible and consequently in the attention of modern scholarship. This book presents the first comprehensive history of the northern kingdom and description of the archaeology of northern Israel from the Late Bronze Age (ca. 1350 B.C.E.) until the kingdom's fall in 720 B.C.E. and beyond. It tells the story of the northern kingdom primarily in its formative phases. The narrative is based in archaeology and makes use of the most updated field research, with the addition of what is known from ancient Near Eastern and biblical texts. Finkelstein's thirty years of fieldwork in sites related to the northern kingdom have paved the way for a new understanding of the history and archaeology of ancient Israel.

GARFINKEL 2013

Yosef Garfinkel, Michael Hasel & Martin Klingbeil, *An Ending and a Beginning, Why We're Leaving Qeiyafa and Going to Lachish*. [Biblical Archaeology Review](#) **39** (2013), vi, 44–51.

What was the ancient name of Khirbet Qeiyafa? We suggest that it was the Biblical site of Sha'arayim, mentioned twice as located in the Valley of Elah, twice connected with David and specifically as part of the David and Goliath story in 1 Samuel 17:52. The name Sha'arayim means "two gates," and indeed Khirbet Qeiyafa had two gates, a phenomenon not found in any other small city of this period.

Khirbet Qeiyafa redefined the debate over the early kingdom of Judah. It is clear now that David's kingdom extended beyond Jerusalem, that fortified cities existed in strategic geopolitical locations and that there was an extensive civil administration capable of building cities. The inscription indicates that writing and literacy were present and that historical memories could have been documented and preserved for generations.

KRATZ 2010

REINHARD G. KRATZ & HERMANN SPIECKERMANN (Hrsg.), *One God—One Cult—One Nation, Archaeological and Biblical Perspectives*. Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft 405 ([Berlin 2010](#)).

MAZAR 2010

Amihai Mazar, *Archaeology and the Biblical Narrative, The Case of the United Monarchy*. In: REINHARD G. KRATZ & HERMANN SPIECKERMANN (Hrsg.), *One God—One Cult—One Nation, Archaeological and Biblical Perspectives*. Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft 405 ([Berlin 2010](#)), 29–58.

Of the various approaches to the historicity of the biblical narratives, the most justified one is in my view the claim that the so-called 'Deuteronomistic History' preserved kernels of ancient texts and realities. This core included components of

geo-political and socio-economic realia, as well as certain information on historical figures and events, although distorted and laden with later anachronisms, legends and literary forms added during the time of transmission, writing and editing of the texts and inspired by the authors' theological and ideological viewpoint. The authors and redactors must have utilized early source materials, such as temple and palace libraries and archives, monumental inscriptions perhaps centuries old, oral transmissions of ancient poetry and folk stories rooted in a remote historical past, and perhaps even some earlier historiographic writings.

This general approach to the biblical text also dictates the evaluation of the historical reality of those narratives relating to David and Solomon. The views are considerably divided: revisionist historians (the so-called 'minimalists') and several archaeologists pointed out the infeasibility of the biblical description of the United Monarchy. Conservatives continue to maintain the biblical narrative as a general framework for historical reconstruction, and those who are 'in the middle of the road' search for possible alternative historical reconstructions. The archaeological paradigm concerning the United Monarchy as formulated mainly by Yadin was attacked by several scholars, while others continue to support this archaeological paradigm.

In this paper, I summarize my previous views on this subject, respond to a recent critique relating to 10th century Jerusalem, and add comments on several new archaeological discoveries relating to this subject.

NA'AMAN 2008

Nadav Na'aman, *In search of the ancient name of Khirbet Qeiyafa. Journal of Hebrew Scriptures* 8 (2008), 21.

In this light, I suggest identifying Khirbet Qeiyafa with Gob, which is mentioned as the place of the second and third battles with the Philistine warriors (2 Sam. 21:18–19).

Historically, we may assume that several clashes between David's and elite Philistine troops took place in the Elah Valley, near Khirbet Qeiyafa, which controlled the main road leading to Gath (for single combats in the ancient Near East and the Bible, see de Vaux 1972). It goes without saying that the Israelites could not capture the strong fort and all the clashes of the elite troops took place near it. The victories of Israelite warriors over outstanding Philistine warriors who belonged to a special elite corps (yeliḏê h r p ?; see Willeson 1958a; 1958b; L'Heureux 1976) was remembered for many years and finally recorded in a chronicle in the literary pattern of three and four, which conveyed the message that after three battles David and his men were able to overcome Gob and advance to the capital city of Gath.

The identification of Gob with Khirbet Qeiyafa supports the assumption of some scholars of the great antiquity of the memories of David's rise to the throne. Khirbet Qeiyafa was already destroyed in the early 9th century, whereas the anecdotes in 2 Sam. 21:18–19 still refer to it as an inhabited central place. It is the first time that the great antiquity of a biblical story/tradition is bored out by the discovery of a site that was deserted at such an early date. It might indicate that some other parts of the stories of David's rise to the throne (such as his enthronement at Hebron, the conquest of Jebus/Jerusalem [2 Sam 5:6–9], and David's two wars with the Philistines [2 Sam 5: 17–25]), which cannot be examined by archaeological tools, also commemorate events of the time of David.

NA'AMAN 2008

Nadav Na'aman, *Shaaraim – the gateway to the kingdom of Judah. Journal of Hebrew Scriptures* 8 (2008), 24.

The description makes it clear that Shaaraim was situated near the road that led from the Philistines' encampment, south of the Valley of Elah, to Gath and Ekron. The place where the main road divided in two, one road leading to Gath and the other to Ekron, was probably near the city. In this light, its identification at Khirbet Qeiyafa, which is located near the battlefield, north of the Elah Valley and close to the Israelites' encampment, is extremely unlikely. Moreover, Khirbet Qeiyafa was probably deserted in the 7th century, when the list of Judahite Shephelah cities was composed (Na'aman 1991: 23–33, with earlier literature).

RÖMER 1998

Thomas C. Römer, *Why would the Deuteronomists tell about the sacrifice of Jephthah's daughter?* [Journal for the Study of the Old Testament](#) **23** (1998), 77, 27–38.

It is commonly assumed that the story of Jephthah's vow refers to an 'old tradition' that was integrated into the Deuteronomistic History. But such a view is contrary to Dtr ideology which is absolutely hostile to any human sacrifice (2 Kgs 16.3; 17.17, 31; 21.6 etc.). A literary-critical approach to Judges 11 shows that vv. 30-31 [32] and 34-40 may be considered as post-Dtr.

The author of Judg. 11.30-40 seems to know the story of the Aqedah, but he is not willing to make a happy ending. There is a tragic dimension in the story and quite an Hellenistic atmosphere (the best parallels to Judg. 11.30-40 may be found in Hellenistic texts). So this text should be considered an insertion from the end of the Persian or beginning of the Hellenistic periods. The author tends to show that Jewish classics can be as tragic as Greek ones.

SCHAUDIG 2010

Hanspeter Schaudig, *Cult Centralization in the Ancient Near East? Conceptions of the Ideal Capital in the Ancient Near East*. In: REINHARD G. KRATZ & HERMANN SPIECKERMANN (Hrsg.), *One God—One Cult—One Nation, Archaeological and Biblical Perspectives*. Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft 405 (Berlin 2010), 145–168.

Among the many popular 'first achievements' in human history accomplished by the Mesopotamian civilizations, has there ever been something like a 'cult centralization in the Ancient Near East'? Does asking that question mean taking a too secular, too technical, and too deliberate point of view on the candid religiousness from the days of humanity's 'childhood'? The topic has been presented cautiously with a question mark, and that is quite right, since at first sight there is no period or region in the Ancient Near East which has clearly seen such a harsh cutting down of cults as it is assumed to have been the case at certain periods in ancient Israel and Judah.¹ At second sight however, it becomes quite clear that even if we can not directly observe a deliberate reducing and centralization of cults in Mesopotamia, there must have been a system working, quietly yet efficiently, which prevented the cults of certain gods to proliferate beyond control. And this system in fact produced a situation that was quite close to the 'One God – One Cult' concept known from Jerusalem. As stated, we can not see this system working, via letters of kings or priests or in juridical quarrels, but we can see the results it produced. And that is: certain 'boss gods', the heads of the pantheon, the divine kings of the gods who in turn bestowed kingship on chosen human kings on earth, had only one cult place at a given time in a given region. As we shall see, the topic is tightly interwoven with the concept of the capital city in Mesopotamia. Hence it will also be this topic to be addressed here, rather than the somewhat elusive idea of 'cult centralization'.

SCHMID 2012

Konrad Schmid, *Genesis and Exodus as Two Formerly Independent Traditions of Origins for Ancient Israel*. *Biblica* **93** (2012), 187–208.

This paper is a response to Joel Baden’s article, which claims that the material in Genesis and Exodus was already literarily connected within the independent J and E documents. I suggest an alternative approach that has gained increased acceptance, especially in European scholarship. The ancestral stories of Genesis on the one hand and the Moses story in Exodus and the following books on the other hand were originally autonomous literary units, and it was only through P that they were connected conceptually and literarily.

YADIN 1958

Y. Yadin, *Solomon’s City Wall and Gate at Gezer*. *Israel Exploration Journal* **8** (1958), 80–86.

The discovery last year of Solomon’s city gate at Hazor—identical in plan and measurements with the one at Megiddo, stratum IV B—was not only a striking corroboration of the historical authenticity of 1 Kings ix, 15, but ipso facto clinched the debate concerning the date of the Megiddo gate. The interesting similarity between the plans of the two structures even led us to suggest that both were planned by one and the same royal architect.

Although neither Macalister nor the scholars who perused his three-volumed account detected at Gezer any gate which could be ascribed to Solomon, the discovery at Hazor and the statement in 1 Kings quoted above led us to a fresh examination of Macalister’s report, in the hope of locating such a gate. We now venture to suggest that part of the so-called ‘Maccabean Castle’ is nothing less than a Solomonic city wall and gate.

Biologie

SCHMID 2015

Boris V. Schmid, Ulf Büntgen, W. Ryan Easterday, Christian Ginzler, Lars Walløe, Barbara Bramanti & Nils Chr. Stenseth, *Climate-driven introduction of the Black Death and successive plague reintroductions into Europe*. *PNAS* **112** (2015), 3020–3025.

The Black Death, originating in Asia, arrived in the Mediterranean harbors of Europe in 1347 CE, via the land and sea trade routes of the ancient Silk Road system. This epidemic marked the start of the second plague pandemic, which lasted in Europe until the early 19th century. This pandemic is generally understood as the consequence of a singular introduction of *Yersinia pestis*, after which the disease established itself in European rodents over four centuries. To locate these putative plague reservoirs, we studied the climate fluctuations that preceded regional plague epidemics, based on a dataset of 7,711 georeferenced historical plague outbreaks and 15 annually resolved tree-ring records from Europe and Asia. We provide evidence for repeated climate-driven reintroductions of the bacterium into European harbors from reservoirs in Asia, with a delay of 15 ± 1 y. Our analysis finds no support for the existence of permanent plague reservoirs in medieval Europe.

Keywords: *Yersinia pestis* | medieval epidemiology | climate-driven disease dynamics

Significance: The second plague pandemic in medieval Europe started with the Black Death epidemic of 1347–1353 and killed millions of people over a time span

of four centuries. It is commonly thought that after its initial introduction from Asia, the disease persisted in Europe in rodent reservoirs until it eventually disappeared. Here, we show that climate-driven outbreaks of *Yersinia pestis* in Asian rodent plague reservoirs are significantly associated with new waves of plague arriving into Europe through its maritime trade network with Asia. This association strongly suggests that the bacterium was continuously reimported into Europe during the second plague pandemic, and offers an alternative explanation to putative European rodent reservoirs for how the disease could have persisted in Europe for so long.

Judentum

BOIN 2014

Douglas Boin, *The Archaeological Quest for the Earliest Christians. Bible History Daily* **2014**, Dec. 1.

Christianity may not have been legally recognized, but Christians themselves were hardly hiding. In effect, Christianity's political triumph may not have been rooted in its superior "spiritual" message. It may have been the product of something much more mundane: a few well-placed allies and the right financial support. Now might be the perfect time to go back and rethink what it means when we say that the Roman Empire "converted" to Christianity.

Klima

CAI 2015

Yanjun Cai et al., *Variability of stalagmite-inferred Indian monsoon precipitation over the past 252,000 y.* *PNAS* **112** (2015), 2954–2959.

Yanjun Cai, Inez Y. Fung, R. Lawrence Edwards, Zhisheng An, Hai Cheng, Jung-Eun Lee, Liangcheng Tan, Chuan-Chou Shen, Xianfeng Wang, Jesse A. Day, Weijian Zhou, Megan J. Kelly & John C. H. Chiang

A speleothem d18O record from Xiaobailong cave in southwest China characterizes changes in summer monsoon precipitation in Northeastern India, the Himalayan foothills, Bangladesh, and northern Indochina over the last 252 kyr. This record is dominated by 23-kyr precessional cycles punctuated by prominent millennial-scale oscillations that are synchronous with Heinrich events in the North Atlantic. It also shows clear glacial–interglacial variations that are consistent with marine and other terrestrial proxies but are different from the cave records in East China. Corroborated by isotope-enabled global circulation modeling, we hypothesize that this disparity reflects differing changes in atmospheric circulation and moisture trajectories associated with climate forcing as well as with associated topographic changes during glacial periods, in particular redistribution of air mass above the growing ice sheets and the exposure of the "land bridge" in the Maritime continents in the western equatorial Pacific.

Keywords: Indian summer monsoon | stalagmite | d18O | precipitation | glacial–interglacial

FIETZKE 2015

Jan Fietzke et al., *Century-scale trends and seasonality in pH and temperature for shallow zones of the Bering Sea.* *PNAS* **112** (2015), 2960–2965.

Jan Fietzke, Federica Ragazzola, Jochen Halfar, Heiner Dietze, Laura C. Foster, Thor Henrik Hansteen, Anton Eisenhauer & Robert S. Steneck

No records exist to evaluate long-term pH dynamics in high-latitude oceans, which have the greatest probability of rapid acidification from anthropogenic CO₂ emissions. We reconstructed both seasonal variability and anthropogenic change in seawater pH and temperature by using laser ablation high-resolution 2D images of stable boron isotopes (δ¹¹B) on a long-lived coralline alga that grew continuously through the 20th century. Analyses focused on four multiannual growth segments. We show a long-term decline of 0.08 ± 0.01 pH units between the end of the 19th and 20th century, which is consistent with atmospheric CO₂ records. Additionally, a strong seasonal cycle (≈ 0.22 pH units) is observed and interpreted as episodic annual pH increases caused by the consumption of CO₂ during strong algal (kelp) growth in spring and summer. The rate of acidification intensifies from -0.006 ± 0.007 pH units per decade (between 1920s and 1960s) to -0.019 ± 0.009 pH units per decade (between 1960s and 1990s), and the episodic pH increases show a continuous shift to earlier times of the year throughout the centennial record. This is indicative of ecosystem shifts in shallow water algal productivity in this high-latitude habitat resulting from warming and acidification.

Keywords: ocean acidification | boron isotopes | isotope imaging | laser ablation ICP-MS | crustose algae

PARTON 2015

Ash Parton et al., *Alluvial fan records from southeast Arabia reveal multiple windows for human dispersal*. *Geology* (2015), preprint, 1–5. DOI:10.1130/G36401.1.

Ash Parton, Andrew R. Farrant, Melanie J. Leng, Matt W. Telfer, Huw S. Groucutt, Michael D. Petraglia & Adrian G. Parker

The dispersal of human populations out of Africa into Arabia was most likely linked to episodes of climatic amelioration, when increased monsoon rainfall led to the activation of drainage systems, improved freshwater availability, and the development of regional vegetation. Here we present the first dated terrestrial record from southeast Arabia that provides evidence for increased rainfall and the expansion of vegetation during both glacial and interglacial periods. Findings from extensive alluvial fan deposits indicate that drainage system activation occurred during Marine Isotope Stage (MIS) 6 (ca. 160–150 ka), MIS 5 (ca. 130–75 ka), and during early MIS 3 (ca. 55 ka). The development of active freshwater systems during these periods corresponds with monsoon intensity increases during insolation maxima, suggesting that humid periods in Arabia were not confined to eccentricity-paced deglaciations, and providing paleoenvironmental support for multiple windows of opportunity for dispersal out of Africa during the late Pleistocene.

Kultur

CHANG 2015

Will Chang, Chundra Cathcart, David Hall & Andrew Garrett, *Ancestry-constrained phylogenetic analysis supports the Indo-European steppe hypothesis*. *Language* **91** (2015), 194–244.

University of California, Berkeley University of California, Berkeley Discussion of Indo-European origins and dispersal focuses on two hypotheses. Qualitative evidence from reconstructed vocabulary and correlations with archaeological data suggest that Indo-European languages originated in the Pontic-Caspian steppe and

spread together with cultural innovations associated with pastoralism, beginning c. 6500–5500 bp. An alternative hypothesis, according to which Indo-European languages spread with the diffusion of farming from Anatolia, beginning c. 9500–8000 bp, is supported by statistical phylogenetic and phylogeographic analyses of lexical traits. The time and place of the Indo-European ancestor language therefore remain disputed. Here we present a phylogenetic analysis in which ancestry constraints permit more accurate inference of rates of change, based on observed changes between ancient or medieval languages and their modern descendants, and we show that the result strongly supports the steppe hypothesis. Positing ancestry constraints also reveals that homoplasy is common in lexical traits, contrary to the assumptions of previous work. We show that lexical traits undergo recurrent evolution due to recurring patterns of semantic and morphological change.

Keywords: lexical change, linguistic phylogenetics, Indo-European chronology, Indo-European dispersal, steppe hypothesis

SHENNAN 2015

Stephen J. Shennan, Enrico R. Crema & Tim Kerig, *Isolation-by-distance, homophily, and “core” vs. “package” cultural evolution models in Neolithic Europe*. [Evolution and Human Behavior 36 \(2015\), 103–109](#).

Recently there has been growing interest in characterising population structure in cultural data in the context of ongoing debates about the potential of cultural group selection as an evolutionary process. Here we use archaeological data for this purpose, which brings in a temporal as well as spatial dimension. We analyse two distinct material cultures (pottery and personal ornaments) from Neolithic Europe, in order to: a) determine whether archaeologically defined “cultures” exhibit marked discontinuities in space and time, supporting the existence of a population structure, formerly isolation-by-distance; and b) investigate the extent to which cultures can be conceived as structuring “cores” or as multiple and historically independent “packages”. Our results support the existence of a robust population structure comparable to previous studies on human culture, and show how the two material cultures exhibit profound differences in their spatial and temporal structuring, signalling different evolutionary trajectories.

Keywords: Cultural evolution | Population structure | Material culture | Isolation-by-distance | Homophily | Archaeology | Neolithic Europe

Methoden

IOANNIDIS 2011

John P. A. Ioannidis, *Excess Significance Bias in the Literature on Brain Volume Abnormalities*. [Archives of General Psychiatry 68 \(2011\), 773–780](#).

Context: Many studies report volume abnormalities in diverse brain structures in patients with various mental health conditions.

Objective: To evaluate whether there is evidence for an excess number of statistically significant results in studies of brain volume abnormalities that suggest the presence of bias in the literature.

Data Sources: PubMed (articles published from January 2006 to December 2009).

Study Selection: Recent meta-analyses of brain volume abnormalities in participants with various mental health conditions vs control participants with 6 or more data sets included, excluding voxel-based morphometry.

Data Extraction: Standardized effect sizes were extracted in each data set, and it was noted whether the results were “positive” ($P < 0.05$) or not. For each data set in each meta-analysis, I estimated the power to detect at $\alpha = 0.05$ an effect equal to the summary effect of the respective meta-analysis. The sum of the power estimates gives the number of expected positive data sets. The expected number of positive data sets can then be compared against the observed number.

Data Synthesis: From 8 articles, 41 meta-analyses with 461 data sets were evaluated (median, 10 data sets per meta-analysis) pertaining to 7 conditions. Twenty-one of the 41 meta-analyses had found statistically significant associations, and 142 of 461 (31%) data sets had positive results. Even if the summary effect sizes of the metaanalyses were unbiased, the expected number of positive results would have been only 78.5 compared with the observed number of 142 ($P < 0.001$).

Conclusion: There are too many studies with statistically significant results in the literature on brain volume abnormalities. This pattern suggests strong biases in the literature, with selective outcome reporting and selective analyses reporting being possible explanations.

Ostasien

QIU 2015

Jane Qiu, *Who are the Tibetans?* [science](#) **347** (2015), 708–711.

China and some scientists say they are Chinese. But others see a richer picture.

“This is counterintuitive,” Dong says. “Barley and wheat need more time to mature than millet, and so would not seem to be a wise choice for the frigid high plateau where the growing season is short.” Yet those grains are more resistant to frost than millet. Dong and colleagues think a global cooling beginning about 4500 B.P. and lasting for a millennium may have driven a shift to these new cereals, imports from the Near East. They in turn allowed farmers to colonize to higher elevations. “Wheat and barley not only helped them survive the big chill,” Chen says, “but expand their range to the heart of the plateau.”

Politik

LAVI 2014

Aharon Ariel Lavi, *Are the Ultra-Orthodox the Key to Israel’s Future? How a misunderstood minority can help spur the Jewish state’s economy and repair its tattered social fabric.* [Mosaic Monthly Essays](#) **2014**, Dec. 1.

While much is known about the tough situation facing Israel externally, less familiar, even to Israel’s supporters, is the social and economic situation at home. Of course, Israeli exploits in the fields of science and technology are deservedly the stuff of legend; the Jewish state is indeed the “start-up nation” par excellence. Dig a little deeper, however, and one might also hear about special difficulties posed by two underperforming sectors of the society: Israeli Arabs, and haredi or ultra-Orthodox Jews.

It’s the latter of these two groups that will concern me here, and for a simple reason: socially and economically, the state of Israel is on the verge of either a leap forward or a crippling regression. To a large extent, the outcome depends on whether, and how, its haredi population can be integrated into the larger society.

In Israel as in the United States, the ultra-Orthodox constitute the fastest-growing sector of the Jewish population. In and of itself, this demographic success

is a fascinating example of how a community can maintain a demandingly pious way of life in an era of boundless personal freedom. Yet, in Israel, the social and economic infrastructure of the haredi sector is exceedingly fragile, which—given that they now make up 10-15 percent of the Jewish population—makes their situation and their future a national test of the first order.

SOREK 2014

Yoav Sorek, *Israel's Big Mistake, How my countrymen gave up the hope for real peace, and how they can get it back*. [Mosaic Monthly Essays 2014, Mar. 2](#).

Conventional wisdom has it that any attempt to change the status quo on the Mount—where, ever since 1967, Israel has allowed the Islamic Waqf to retain its authority over the Muslim buildings as well as access to the plaza itself—will enrage the entire Muslim world and ignite a conflagration. But why? The Holy of Holies in the ancient Temple—the spot on the Mount most sacred to Judaism—was located, according to most authorities, in the middle of today's 37-acre plaza. That spot is now occupied by the Dome of the Rock, which dates from the 7th century and is one of the most ancient and beautiful of Muslim monuments.

Unlike Al-Aqsa, the famous mosque located on the southern edge of the terrace, which faces south to allow worshippers to pray toward Mecca, the Dome is not and never was a mosque. According to some sources, it was built to protect the rock known as the foundation stone, and thereby to mark the place of the ancient Jewish temple. Its creators had no intention of denying the site's Jewish importance, or of Islamizing it; indeed, some claim that the site was used as a synagogue in the Middle Ages, and until this day the whole platform is also known as Bayt al-Muqaddas, an Arabic version of Beyt Hamikdash, the classical Hebrew term for the Temple and its immediate environs.

Sometimes, dynamic thinking reveals possibilities nobody has noticed or dared to acknowledge. A few years ago, a friend and I met with representatives of the European Union's agency for humanitarian aid (ECHO). The Frenchman we spoke with in the agency's Jerusalem office, whose main mission is to deliver EU aid to Gaza, was serenely convinced that Israel—which had long since left the territory—was still acting the role of evil oppressor, exercising its malignant power by obstructing the shipment of goods to the Gazan people. We pointed out that, since Gaza was overpopulated, and since most of its residents were not locals but uprooted refugees, a better way to improve their lot would be to facilitate their move to countries willing to absorb them. According to surveys, 40 percent of Gazans said they would be happy to leave. Why not help them?

His reply was startling in its candor. "Are you kidding? 40 percent? It's probably 99 percent. All of them want to leave!" Well, we repeated, have you thought of helping them? "No, never." Why not? "Because if they leave, it'd be like releasing Israel from its responsibility for the nakba." So—we tried again—you want to keep them there for the sake of a political vendetta. What if Israel admitted its responsibility, and agreed to compensate not only the refugees but their grandchildren?

Our questions were too much for him; he had nothing to reply. So trapped by propaganda was this sincere and pleasant European as to be unable to think of the good of the people he was charged with supporting, let alone the future good of the neighborhood.

Story or Book

WHITE 2014

Ellen White, *One God—One Cult—One Nation*. [Religious Studies Review](#) **40** (2014), 35.

One God—One Cult—One Nation: Archaeological and Biblical perspectives. Edited by Reinhard G. Kratz and Hermann Spieckermann. Beihefte zur Zeitschrift für die alttestamentliche Wissenschaft, 405. Göttingen: de Gruyter, 2010. Pp. v + 463. \$168.00.

One of the most useful parts of this collection is the diversity of perspectives on each of the four topics covered. These topics are the Great Monarchy (David and Solomon), Cult Centralization (Hezekiah and Josiah), the Ancient City (Beth Shean), and the Development of the Divine Concept. The unifying principle of the book is the relationship between the Bible and archaeology.