

References

Afrika

MARSHALL 2011

Fiona Marshall & Lior Weissbrod, *Domestication Processes and Morphological Change, Through the Lens of the Donkey and African Pastoralism*. [Current Anthropology 52 \(2011\), Supplement, S397–S413](#).

Little is known about the beginnings and spread of food production in the tropics, but recent research suggests that definitions that depend on morphological change may hamper recognition of early farming in these regions. The earliest form of food production in Africa developed in arid tropical grasslands. Animals were the earliest domesticates, and the mobility of early herders shaped the development of social and economic systems. Genetic data indicate that cattle were domesticated in North Africa and suggest domestication of two different African wild asses, in the Sahara and in the Horn. Cowpeas and pearl millet were domesticated several thousand years later, but some intensively used African plants have never undergone morphological change. Morphological, genetic, ethnoarchaeological, and behavioral research reveals relationships between management, animal behavior, selection, and domestication of the donkey. Donkeys eventually showed phenotypic and morphological changes distinctive of domestication, but the process was slow. This African research on domestication of the donkey and the development of pastoralism raises questions regarding how we conceptualize hunter-gatherer versus food-producer land use. It also suggests that we should focus more intently on the methods used to recognize management, agropastoral systems, and domestication events.

Aktuell

AUSTIN 2014

Jim Austin, *Reviewing the reviewers*. [science 345 \(2014\), 1206](#).

The comparisons of female and male applicants were much more interesting. In head-to-head linguistic comparisons, women consistently outscored men, and some of the differences were large.

“This is intriguing,” Monica Biernat, associate chair of psychology at the University of Kansas, Lawrence, who has done research on subtle gender bias, commented to Science. “But how to interpret the pattern is less clear.”

“We think it is more likely that the same level of performance was interpreted in gender-stereotypic ways, leading to more positive commentary about women’s applications,” they write. One expert we talked to points to an alternative interpretation: Maybe UW women simply write better grant proposals than UW men do.

BANTON 2014

Simon Banton, Mark Bowden, Tim Daw, Damian Grady & Sharon Soutar, *Parchmarks at Stonehenge, July 2013*. [Antiquity 88 \(2014\), 733–739](#).

Despite being one of the most intensively explored prehistoric monuments in western Europe, Stonehenge continues to hold surprises. The principal elements of the complex are well known: the outer bank and ditch, the sarsen circle capped by lintels, the smaller bluestone settings and the massive central trilithons. They represent the final phase of Stonehenge, the end product of a complicated sequence that is steadily being refined (most recently in Darvill et al. ‘Stonehenge remodelled’, *Antiquity* 86 (2012): 1021-40). Yet Stonehenge in its present form is incomplete—some of the expected stones are missing—and it has sometimes been suggested that it was never complete; that the sarsen circle, for example, was only ever finished on the north-eastern side, facing the main approach along the Avenue. A chance appearance of parchmarks, however, provides more evidence.

Keywords: Stonehenge, sarsens, Y and Z holes, Aubrey holes, parchmarks

BĒRZIŅŠ 2014

Valdis Bērziņš et al., *New research at Rīņņukalns, a Neolithic freshwater shell midden in northern Latvia*. *Antiquity* 88 (2014), 715–732.

Valdis Bērziņš, Ute Brinker, Christina Klein, Harald Lübke, John Meadows, Mudīte Rudzīte, Ulrich Schmölcke, Harald Stümpel & Ilga Zagorska

The prehistoric shell middens of Atlantic Europe consist of marine molluscs, but the eastern Baltic did not have exploitable marine species. Here the sole recorded shell midden, at Rīņņukalns in Latvia, is on an inland lake and is formed of massive dumps of freshwater shells. Recent excavations indicate that they are the product of a small number of seasonal events during the later fourth millennium BC. The thickness of the shell deposits suggests that this was a special multi-purpose residential site visited for seasonal aggregations by pottery using hunter-gatherer communities on the northern margin of Neolithic Europe.

Keywords: eastern Baltic, Latvia, Middle Neolithic, shell midden, Unio, freshwater mussel, Typical Comb Ware

DANIELSON 2014

Dennis Danielson & Christopher M. Graney, *Kopernikus – Revolution mit Hindernissen*. *Spektrum der Wissenschaft* 2014, x, 54–59.

Das kopernikanische System, dem zufolge die Erde nicht im Mittelpunkt des Universums ruht, stieß keineswegs nur auf den Widerstand der Kirche. Auch die meisten Astronomen fanden seinerzeit, das Modell widerspreche den Beobachtungen.

FLEMING 2014

David Fleming, Bruno L. Giordano, Roberto Caldara & Pascal Belin, *A language-familiarity effect for speaker discrimination without comprehension*. *PNAS* 111 (2014), 13795–13798.

The influence of language familiarity upon speaker identification is well established, to such an extent that it has been argued that “Human voice recognition depends on language ability” [Perrachione TK, Del Tufo SN, Gabrieli JDE (2011) *Science* 333(6042):595]. However, 7-mo-old infants discriminate speakers of their mother tongue better than they do foreign speakers [Johnson EK, Westrek E, Nazzi T, Cutler A (2011) *Dev Sci* 14(5):1002–1011] despite their limited speech comprehension abilities, suggesting that speaker discrimination may rely on familiarity with the sound structure of one’s native language rather than the ability to comprehend speech. To test this hypothesis, we asked Chinese and English adult participants to rate speaker dissimilarity in pairs of sentences in English or Mandarin that were first time-reversed to render them unintelligible. Even in these

conditions a language-familiarity effect was observed: Both Chinese and English listeners rated pairs of natively language speakers as more dissimilar than foreign-language speakers, despite their inability to understand the material. Our data indicate that the language familiarity effect is not based on comprehension but rather on familiarity with the phonology of one's native language. This effect may stem from a mechanism analogous to the "other-race" effect in face recognition.
voice perception | unintelligible speech | dissimilarity ratings

SCHLICHTING 2014

H. Joachim Schlichting, *Das Geheimnis des blauen Schattens*. [Spektrum der Wissenschaft](#) **2014**, x, 52–53.

Zwischen untergehender Sonne und aufgehendem Mond lässt der Abgasschweif einer Rakete einen rätselhaften Schattenstrahl entstehen.

Amerika

BOËDA 2014

Eric Boëda et al., *A new late Pleistocene archaeological sequence in South America, The Vale da Pedra Furada (Piauí, Brazil)*. [Antiquity](#) **88** (2014), 927–955.

[Antiquity088-0927-Supplement.pdf](#)

Eric Boëda, Ignacio Clemente-Conte, Michel Fontugne, Christelle Lahaye, Mario Pino, Gisele Daltrini Felice, Niède Guidon, Sirlei Hoeltz, Antoine Lourdeau, Marina Pagli, Anne-Marie Pessis, Sibeli Viana, Amélie Da Costa & Eric Douville

The date of the first settlement of the Americas remains a contentious subject. Previous claims for very early occupation at Pedra Furada in Brazil were not universally accepted (see Meltzer et al. 1994). New work at the rockshelter of Boqueirão da Pedra Furada and at the nearby open-air site of Vale da Pedra Furada have however produced new evidence for human occupation extending back more than 20 000 years. The argument is supported by a series of 14C and OSL dates, and by technical analysis of the stone tool assemblage. The authors conclude that the currently accepted narrative of human settlement in South America will have to be re-thought. The article is followed by a series of comments, rounded off by a reply from the authors.

Keywords: Pedra Furada, Serra de Capivara, settlement of the Americas, taphonomy, lithic technology, cobble tools, quartz tools, dating methods

Standards and expectations

Tom D. Dillehay

More of the same

Adriana Schmidt Dias & Lucas Bueno

New World, new models

Hubert Forestier

Is dating an issue?

James Feathers

'Simple' need not mean 'archaic'

Kjel Knutsson

The peopling of South America: expanding the evidence

Eric Boëda, Christelle Lahaye, Gisele Daltrini Felice, Niède Guidon, Sirlei Hoeltz, Antoine Lourdeau, Anne-Marie Pessis, Sibeli Viana, Ignacio Clemente-Conte, Mario Pino, Michel Fontugne, Marina Pagli & Amélie Da Costa

PIPERNO 2011

Dolores R. Piperno, *The Origins of Plant Cultivation and Domestication in the New World Tropics, Patterns, Process, and New Developments*. [Current Anthropology 52 \(2011\), Supplement, S453–S470](#).

[CurrAnth52-S453-Supplement.pdf](#)

The New World tropical forest is now considered to be an early and independent cradle of agriculture. As in other areas of the world, our understanding of this issue has been significantly advanced by a steady stream of archaeobotanical, paleoecological, and molecular/genetic data. Also importantly, a renewed focus on formulating testable theories and explanations for the transition from foraging to food production has led to applications from subdisciplines of ecology, economy, and evolution not previously applied to agricultural origins. Most recently, the integration of formerly separated disciplines, such as developmental and evolutionary biology, is causing reconsiderations of how novel phenotypes, including domesticated species, originate and the influence of artificial selection on the domestication process. It is becoming clear that the more interesting question may be the origins of plant cultivation rather than the origins of agriculture. This paper reviews this body of evidence and assesses current views about how and why domestication and plant food production arose.

SMITH 2011

Bruce D. Smith, *The Cultural Context of Plant Domestication in Eastern North America*. [Current Anthropology 52 \(2011\), Supplement, S471–S484](#).

The timing and sequence of the independent domestication of indigenous eastern North American seed plants (*Cucurbita pepo*, *Helianthus annuus*, *Iva annua*, *Chenopodium berlandieri*) and the subsequent development of a crop complex are discussed within a broader environmental and cultural context. The settlements that have yielded the earliest record of eastern domesticates are all small and situated in resource-rich lower-order river valley corridors within oak-savannah and oak-hickory forest regions. Well-preserved floral and faunal assemblages indicate continued substantial reliance on a wide range of wild species with no evidence of resource depletion. Similarly, there is no indication of landscape packing in terms of high site density in these resource-rich river valleys, calling into question developmental models of domestication and agricultural origins that rely on population pressure or resource imbalance as causal factors.

Anthropologie

CROMPTON 2008

R. H. Crompton, E. E. Vereecke & S. K. S. Thorpe, *Locomotion and posture from the common hominoid ancestor to fully modern hominins, with special reference to the last common panin/hominin ancestor*. [Journal of Anatomy 212 \(2008\), 501–543](#).

Based on our knowledge of locomotor biomechanics and ecology we predict the locomotion and posture of the last common ancestors of (a) great and lesser apes and their close fossil relatives (hominoids); (b) chimpanzees, bonobos and modern humans (hominines); and (c) modern humans and their fossil relatives (hominins). We evaluate our propositions against the fossil record in the context of a broader review of evolution of the locomotor system from the earliest hominoids of modern aspect (crown hominoids) to early modern *Homo sapiens*. While some early East

African stem hominoids were pronograde, it appears that the adaptations which best characterize the crown hominoids are orthograde and an ability to abduct the arm above the shoulder – rather than, as is often thought, manual suspension *sensu stricto*. At 7–9 Ma (not much earlier than the likely 4–8 Ma divergence date for panins and hominins, see Bradley, 2008) there were crown hominoids in southern Europe which were adapted to moving in an orthograde posture, supported primarily on the hindlimb, in an arboreal, and possibly for *Oreopithecus*, a terrestrial context. By 7 Ma, *Sahelanthropus* provides evidence of a Central African hominin, panin or possibly gorilline adapted to orthograde, and both orthograde and habitually highly extended postures of the hip are evident in the arboreal East African protohominin *Orrorin* at 6 Ma. If the traditional idea that hominins passed through a terrestrial ‘knuckle-walking’ phase is correct, not only does it have to be explained how a quadrupedal gait typified by flexed postures of the hindlimb could have preadapted the body for the hominin acquisition of straight-legged erect bipedality, but we would have to accept a transition from stem-hominoid pronograde to crown hominoid orthograde, back again to pronograde in the African apes and then back to orthograde in hominins. Hand-assisted arboreal bipedality, which is part of a continuum of orthograde behaviours, is used by modern orangutans to forage among the small branches at the periphery of trees where the core hominoid dietary resource, ripe fruit, is most often to be found. Derivation of habitual terrestrial bipedality from arboreal hand-assisted bipedality requires fewer transitions, and is also kinematically and kinetically more parsimonious.

Keywords: biomechanics; ecology; fossils; hominins; hominoids; locomotion; posture.

GIBBONS 2014

Ann Gibbons, *Three-part ancestry for Europeans*. [science 345 \(2014\), 1106–1107](#).

Eurasian “ghost lineage” contributed to most modern European genomes.

The study’s other big discovery was the mysterious Eurasian DNA. It is missing from hunter-gatherers from Luxembourg and Spain, as well as from the early farmers sequenced so far. But it shows up in ancient hunter-gatherers in Scandinavia. And it is widespread in modern Europeans, accounting for about 20 % of the genome of most Europeans, on average, reaching 29 % in central and northern Europeans, such as Estonians, Lithuanians, and Scandinavians. People in southern Europe today have very little of this ghost lineage and instead inherited a high proportion of their genes— up to 90 % in the case of Sardinians—from the first European farmers.

A clue to where the mystery DNA originated turned up far afield, in the genome of the 24,000-year-old Mal’ta boy from Siberia (*Science*, 25 October 2013, p. 409): It closely matches the European sequences. No living Asians still carry the boy’s type of DNA. But significant portions of his genome also live on in Native Americans, suggesting that they, like Europeans, are partly derived from the same source in northern Eurasia, Krause reported. He concluded that these Eurasians lived in Siberia 24,000 years ago. Some of their descendants then crossed Beringia to the New World more than 14,000 years ago. Others reached Scandinavia—but not central or Western Europe—by 8000 years ago, explaining the presence of their DNA in Scandinavian hunter-gatherers.

In their talks, Haak and Krause each proposed that the late influx of these “ghost” Eurasians might be related to what’s known archaeologically as the Corded Ware culture of nomadic herders, who imprinted twisted cord or rope onto their pottery. These nomadic pastoralists herded their cattle east from the steppes north of the Black Sea and occupied large areas of northeast and central Europe by 2500 B.C.E.

LAZARIDIS 2014

Iosif Lazaridis et al., *Ancient human genomes suggest three ancestral populations for present-day Europeans*. *nature* **513** (2014), 409–413. n513-0409-Supplement.pdf

Iosif Lazaridis, Nick Patterson, Alissa Mittnik, Gabriel Renaud, Swapan Mallick, Karola Kirsanow, Peter H. Sudmant, Joshua G. Schraiber, Sergi Castellano, Mark Lipson, Bonnie Berger, Christos Economou, Ruth Bollongino, Qiaomei Fu, Kirsten I. Bos, Susanne Nordenfelt, Heng Li, Cesare de Filippo, Kay Prüfer, Susanna Sawyer, Cosimo Posth, Wolfgang Haak, Fredrik Hallgren, Elin Fornander, Nadin Rohland, Dominique Delsate, Michael Francken, Jean-Michel Guinet, Joachim Wahl, George Ayodo, Hamza A. Babiker, Graciela Bailliet, Elena Balanovska, Oleg Balanovsky, Ramiro Barrantes, Gabriel Bedoya, Haim Ben-Ami, Judit Bene, Fouad Berrada, Claudio M. Bravi, Francesca Brisighelli, George B. J. Busby, Francesco Cali, Mikhail Churnosov, David E. C. Cole, Daniel Corach, Larissa Damba, George van Driem, Stanislav Dryomov, Jean-Michel Dugoujon, Sardana A. Fedorova, Irene Gallego Romero, Marina Gubina, Michael Hammer, Brenna M. Henn, Tor Hervig, Ugur Hodoglugil, Aashish R. Jha, Sena Karachanak-Yankova, Rita Khusainova, Elza Khusnutdinova, Rick Kittles, Toomas Kivisild, William Klitz, Vaidutis Kucjinskas, Alena Kushniarevich, Leila Laredj, Sergey Litvinov, Theologos Loukidis, Robert W. Mahley, Béla Melegh, Ene Metspalu, Julio Molina, Joanna Mountain, Klemetti Näkkäläjärvi, Desislava Nesheva, Thomas Nyambo, Ludmila Osipova, Jüri Parik, Fedor Platonov, Olga Posukh, Valentino Romano, Francisco Rothhammer, Igor Rudan, Ruslan Ruizbakiev, Hovhannes Sahakyan, Antti Sajantila, Antonio Salas, Elena B. Starikovskaya, Ayele Tarekegn, Draga Toncheva, Shahlo Turdikulova, Ingrida Uktveryte, Olga Utevska, René Vasquez, Mercedes Villena, Mikhail Voevoda, Cheryl A. Winkler, Levon Yepiskoposyan, Pierre Zalloua, Tatijana Zemunik, Alan Cooper, Cristian Capelli, Mark G. Thomas, Andres Ruiz-Linares, Sarah A. Tishkoff, Lalji Singh, Kumarasamy Thangaraj, Richard Villems, David Comas, Rem Sukernik, Mait Metspalu, Matthias Meyer, Evan E. Eichler, Joachim Burger, Montgomery Slatkin, Svante Pääbo, Janet Kelso, David Reich & Johannes Krause

We sequenced the genomes of a 7,000-year-old farmer from Germany and eight 8,000-year-old hunter-gatherers from Luxembourg and Sweden. We analysed these and other ancient genomes with 2,345 contemporary humans to show that most present-day Europeans derive from at least three highly differentiated populations: west European hunter-gatherers, who contributed ancestry to all Europeans but not to Near Easterners; ancient north Eurasians related to Upper Palaeolithic Siberians, who contributed to both Europeans and Near Easterners; and early European farmers, who were mainly of Near Eastern origin but also harboured west European hunter-gatherer related ancestry. We model these populations' deep relationships and show that early European farmers had 44% ancestry from a 'basal Eurasian' population that split before the diversification of other non-African lineages.

RIETVELD 2014

Cornelius A. Rietveld et al., *Common genetic variants associated with cognitive performance identified using the proxy-phenotype method*. *PNAS* **111** (2014), 13790–13794.

Cornelius A. Rietveld, Tõnu Esko, Gail Davies, Tune H. Pers, Patrick Turley, Beben Benyamini, Christopher F. Chabris, Valur Emilsson, Andrew D. Johnson, James J. Lee, Christiaan de Leeuw, Riccardo E. Marioni, Sarah E. Medland, Michael B. Miller, Olga Rostapshova, Sven J. van der Lee, Anna A. E. Vinkhuyzen, Najaf Amin, Dalton Conley, Jaime Derringer, Cornelia M. van Duijn, Rudolf Fehr-

mann, Lude Franke, Edward L. Glaeser, Narelle K. Hansell, Caroline Hayward, William G. Iacono, Carla Ibrahim-Verbaas, Vincent Jaddoe, Juha Karjalainen, David Laibson, Paul Lichtenstein, David C. Liewald, Patrik K. E. Magnusson, Nicholas G. Martin, Matt McGue, George McMahon, Nancy L. Pedersen, Steven Pinker, David J. Porteous, Danielle Posthuma, Fernando Rivadeneira, Blair H. Smith, John M. Starr, Henning Tiemeier, Nicholas J. Timpson, Maciej Trzaskowski, André G. Uitterlinden, Frank C. Verhulst, Mary E. Ward, Margaret J. Wright, George Davey Smith, Ian J. Deary, Magnus Johannesson, Robert Plomin, Peter M. Visscher, Daniel J. Benjamin, David Cesarinir & Philipp D. Koellinger

We identify common genetic variants associated with cognitive performance using a two-stage approach, which we call the proxyphenotype method. First, we conduct a genome-wide association study of educational attainment in a large sample ($n = 106,736$), which produces a set of 69 education-associated SNPs. Second, using independent samples ($n = 24,189$), we measure the association of these education-associated SNPs with cognitive performance. Three SNPs (rs1487441, rs7923609, and rs2721173) are significantly associated with cognitive performance after correction for multiple hypothesis testing. In an independent sample of older Americans ($n = 8,652$), we also show that a polygenic score derived from the education-associated SNPs is associated with memory and absence of dementia. Convergent evidence from a set of bioinformatics analyses implicates four specific genes (KNCMA1, NRXN1, POU2F3, and SCRT). All of these genes are associated with a particular neurotransmitter pathway involved in synaptic plasticity, the main cellular mechanism for learning and memory.

SENUIT 2012

Brigitte Senut, *Fifty years of Debate on the Origins of Human Bipedalism*. [Journal of Biological Research](#) **85** (2012), 37–46.

The history of hominid bipedalism appears complex and to understand how this mode of locomotion emerged, we must not focus exclusively on the Plio-Pleistocene hominids and modern African apes. On the basis of discoveries in the last decade, we conclude that the dichotomy between apes and humans took place around 10 million years ago, maybe slightly earlier (Pickford and Senut, 2005; Suwa et al. 2006; Kunitatsu et al., 2007; Pickford et al., 2009). We must concentrate the research efforts on the Miocene period which witnessed the rise of the early hominids (the term being taken in its reduced sense). Most Early Miocene and Middle Miocene apes were adapted to arboreal environments and it is logical to emphasize that in its first expression bipedalism was associated with a great deal of arboreal adaptations.

THORPE 2014

Susannah K. S. Thorpe, Juliet M. McClymont & Robin H. Crompton, *The arboreal origins of human bipedalism*. [Antiquity](#) **88** (2014), 906–926.

Almost a century and a half ago, Charles Darwin in *The Descent of Man* (1871: 141) highlighted the evolution of bipedalism as one of the key features of the human lineage, freeing the hands for carrying and for using and making tools. But how did it arise? The famous footprints from Laetoli in Tanzania show that hominin ancestors were walking upright by at least 3.65 million years ago. Recent work, however, suggests a much earlier origin for bipedalism, in a Miocene primate ancestor that was still predominantly tree-dwelling. Here Susannah Thorpe, Juliet McClymont and Robin Crompton set out the evidence for that hypothesis and reject the notion that the common ancestor of great apes and humans was a

knuckle-walking terrestrial species, as are gorillas and chimpanzees today. The article is followed by a series of comments, rounded off by a reply from the authors.

Human bipedalism and the importance of terrestriality

Isabelle C. Winder, Geoffrey C. P. King, Maud H. Devès & Geoffrey N. Bailey

Unreasonable expectations

Bernard Wood

Ignoring *Ardipithecus* in an origins scenario for bipedality is . . . lame

Tim D. White, C. Owen Lovejoy & Gen Suwa

When the ancestors were arboreal

Brigitte Senut

Adaptive diversity: from the trees to the ground

Sarah Elton

Putting flesh on to hominin bones

Susannah K. S. Thorpe, Juliet M. McClymont & Robin H. Crompton

Biologie

LARSON 2011

Greger Larson, *Genetics and Domestication, Important Questions for New Answers*. [Current Anthropology 52 \(2011\), Supplement, S485–S495](#).

The recent ability to extract genetic data from archaeological remains of wild and domestic animals has opened up a new window onto the history and process of domestication. This article summarizes the impact of that new perspective derived from both modern and ancient DNA and presents a discussion of the validity of both the methods and conclusions. In general I address the use of post hoc conclusions and the lack of starting hypotheses to inform what we know about domestication from a genetics perspective. I use three case examples (dogs, goats, and pigs) to exemplify fundamental aspects of the genetic data we still do not understand before specifically commenting on the use of molecular clocks to date domestication and the necessity of thinking about domestication as a process. I conclude on a positive note with a brief discussion about the future relationship between genetics and domestication.

WEISS 2011

Ehud Weiss & Daniel Zohary, *The Neolithic Southwest Asian Founder Crops, Their Biology and Archaeobotany*. [Current Anthropology 52 \(2011\), Supplement, S237–S254](#).

This article reviews the available information on the founder grain crops (einkorn wheat, emmer wheat, barley, lentil, pea, chickpea, and flax) that started agriculture in Southwest Asia during the Pre-Pottery Neolithic period, some 11,000–10,000 years ago. It provides a critical assessment for recognizing domestication traits by focusing on two fields of study: biology and archaeobotany. The data in these fields have increased considerably during the past decade, and new research techniques have added much to our knowledge of progenitor plants and their domesticated derivatives. This article presents the current and accumulated knowledge regarding each plant and illustrates the new picture that emerged on the origin of agriculture.

Datierung

TORFSTEIN 2013

Adi Torfstein, Steven L. Goldstein, Elisa J. Kagan & Mordechai Stein, *Integrated multi-site U–Th chronology of the last glacial Lake Lisan*. *Geochimica et Cosmochimica Acta* **104** (2013), 210–231.

GeoCosmo104-0210-Supplement1.pdf, GeoCosmo104-0210-Supplement2.ods, GeoCosmo104-0210-Supplement3.pdf

We present a new integrated multi-site chronology for Lake Lisan, which occupied the Dead Sea basin and Jordan Valley during the last glacial period (70–14 kka, Marine Isotope Stages 4, 3, 2). The Dead Sea basin lacustrine deposits are unique among closed basin sediments in that they formed in a deep, hypersaline water body that precipitated primary aragonite which is amenable to radiometric dating by U-series, providing a solid basis for studies of the relationship of Middle East climate to other changes in the high latitudes or the tropics.

The application of U–Th dating for lacustrine carbonates requires corrections for detrital U and Th and hydrogenous (“initial”) ^{230}Th . Here we followed an iterative approach, in which we evaluate the composition of the detrital contamination independently for every set of coeval samples to determine the corrected ages. These were further filtered and combined with lithological–limnological considerations, which were used to construct age–height models for all studied stratigraphic sections. Finally, the ages of stratigraphic tie-points were used to integrate the individual age–height models into a unified chronology. The resulting chronological framework indicates that the ages of several primary gypsum units associated with catastrophic lake level drops correspond with the timing of Heinrich events in the North Atlantic. Thus, a final iterative step involves refining the ages of “Lisan-gypsum events” based on the ages of Heinrich events 6, 5, 5a, 4, and 1. This approach yields an unprecedented basin-wide, unified, event-anchored chronology for the Lisan Formation, with typical age uncertainties ca. 1000–2000 years (95 % confidence limit) across the entire last glacial, well below those typically related to individual U–Th and radiocarbon dating of “dirty” carbonates from similar time intervals. The results can be further extrapolated to new sites and serve as a geochronometric reference for the reconstruction of the limnological history of Lake Lisan.

Klima

BAR-YOSEF 2011

Ofer Bar-Yosef, *Climatic Fluctuations and Early Farming in West and East Asia*. *Current Anthropology* **52** (2011), Supplement, S175–S193.

This paper presents a Levantine model for the origins of cultivation of various wild plants as motivated by the vagaries of the climatic fluctuation of the Younger Dryas within the context of the mosaic ecology of the region that affected communities that were already sedentary or semisedentary. In addition to holding to their territories, these communities found ways to intensify their food procurement strategy by adopting intentional growth of previously known annuals, such as a variety of cereals. The Levantine sequence, where Terminal Pleistocene and Early Holocene Neolithic archaeology is well known, is employed as a model for speculating on the origins of millet cultivation in northern China, where both the archaeological data and the dates are yet insufficient to document the evolution of socioeconomic changes that resulted in the establishment of an agricultural system.

LIU 2013

Tanzhuo Liu, Wallace S. Broecker & Mordechai Stein, *Rock varnish evidence for a Younger Dryas wet period in the Dead Sea basin*. [Geophysical Research Letters](#) **40** (2013), 2229–2235.

Rock varnish from 14.6 to 13.2 ka recessional shorelines of late glacial Lake Lisan and fan delta surfaces between 280 and 365m bmsl (meters below mean sea level) along the western margins of the Dead Sea contains replicable layering patterns, characterized by a low Mn and Ba orange/yellow surface layer and a high Mn and Ba dark basal layer. The deposition of the dark basal layers immediately after the lake recession represents a wet period coinciding with the Younger Dryas (YD) cooling (12.9–11.6 ka), manifesting the influence of midlatitude westerly winds in the eastern Mediterranean-central Levant (EM-CL). In contrast, varnish from the distal base of fan deltas contains only orange/ yellow surface layers, diagnostic of the Holocene relatively dry climate. The absence of the dark basal layers in the varnish further indicates a YD high stand at ≈ 365 m bmsl and a lake level rise of at least 100 m from its Bølling-Ållerød lowstand. This rise stands in contrast to the abrupt drop of the lake level during the Heinrich (H1) cold event, illustrating the opposite response of the EM-CL climate to changes in the North Atlantic climate. The YD wet event most likely reflects a southward shift of the Atlantic meridional overturning circulation-modulated midlatitude westerly wind belt in the EM-CL region.

MIGOWSKI 2006

Claudia Migowski, Mordechai Stein, Sushma Prasad, Jörg F.W. Ne-gendank & Amotz Agnon, *Holocene climate variability and cultural evolution in the Near East from the Dead Sea sedimentary record*. [Quaternary Research](#) **66** (2006), 421–431.

A comprehensive record of lake level changes in the Dead Sea has been reconstructed using multiple, well dated sediment cores recovered from the Dead Sea shore. Interpreting the lake level changes as monitors of precipitation in the Dead Sea drainage area and the regional eastern Mediterranean palaeoclimate, we document the presence of two major wet phases (≈ 10 –8.6 and ≈ 5.6 –3.5 cal kyr BP) and multiple abrupt arid events during the Holocene. The arid events in the Holocene Dead Sea appear to coincide with major breaks in the Near East cultural evolution (at ≈ 8.6 , 8.2, 4.2, 3.5 cal kyr BP). Wetter periods are marked by the enlargement of smaller settlements and growth of farming communities in desert regions, suggesting a parallelism between climate and Near East cultural development.

Keywords: Dead Sea; Holocene; Paleoclimate; Paleohydrology; Near East; Culture history

ROHLING 2013

Eelco J. Rohling, *Quantitative assessment of glacial fluctuations in the level of Lake Lisan, Dead Sea rift*. [Quaternary Science Reviews](#) **70** (2013), 63–72.

A quantitative understanding of climatic variations in the Levant during the last glacial cycle is needed to support archaeologists in assessing the drivers behind hominin migrations and cultural developments in this key region at the intersection between Africa and Europe. It will also foster a better understanding of the region's natural variability as context to projections of modern climate change. Detailed documentation of variations in the level of Lake Lisan – the lake that occupied the Dead Sea rift during the last glacial cycle – provides crucial climatic

information for this region. Existing reconstructions suggest that Lake Lisan highstands during cold intervals of the last glacial cycle represent relatively humid conditions in the region, but these interpretations have remained predominantly qualitative. Here, I evaluate realistic ranges of the key climatological parameters that controlled lake level, based on the observed timing and amplitudes of lake-level variability. I infer that a mean precipitation rate over the wider catchment area of about 500 mm y⁻¹, as proposed in the literature, would be consistent with observed lake levels if there was a concomitant 15–50% increase in wind speed during cold glacial stadials. This lends quantitative support to previous inferences of a notable increase in the intensity of Mediterranean (winter) storms during glacial periods, which tracked eastward into the Levant. In contrast to highstands during ‘regular’ stadials, lake level dropped during Heinrich Events. I demonstrate that this likely indicates a further intensification of the winds during those times.

Keywords: Lake Lisan | Quantitative climate reconstruction | Precipitation | Evaporation | Wind speed

SIME 2014

Louise Claire Sime, *Greenland deglaciation puzzles*. [science](#) **345** (2014), 1116–1117.

Nitrogen isotope data help to resolve puzzling observations during the last deglaciation.

Buizert et al. further this analysis by exploiting the fact that water isotopes are not the only way to track temperature in ice cores. When snow becomes denser after it has been deposited, the nitrogen isotope ratio, d15N, changes as a function of temperature, thus providing information that does not depend on water isotope data. The authors use d15N to reconstruct temperatures from three locations in Greenland.

STEIN 2010

Mordechai Stein, Adi Torfstein, Ittai Gavrieli & Yoseph Yechieli, *Abrupt aridities and salt deposition in the post-glacial Dead Sea and their North Atlantic connection*. [Quaternary Science Reviews](#) **29** (2010), 567–575.

Abrupt arid events in the post-glacial (w17.4–10 kyr BP) Dead Sea Basin (DSB) were recorded by significant lake level declines in Lake Lisan and massive deposition of gypsum and salt. Between 17.4 and 16 kyr cal BP, the lake level dropped from its late MIS2 stand of ≈260 m below mean sea level (m bmsl) to ≈330 mbmsl, depositing a thick sequence of gypsum. Between ≈16 and 15 kyr cal BP the lake level recovered but dropped abruptly again at ≈14 kyr cal BP to below 465 mbmsl, probably the lowest late Pleistocene stand. Then, between 13 and 11 kyr cal BP (the Younger Dryas time interval) the lake rose above 400 mbmsl and declined at 11–10 kyr cal BP depositing a thick sequence of salt. The abrupt lake level drops and salt deposition coincided with times of ice and meltwater discharges into the North Atlantic (NA): Heinrich event (H1) and Meltwater Pulse – MWP1a. Similar coincidence between ice and meltwater discharges in the NA (e.g., H-events) and arid episodes at the Levant was recorded during the colder last glacial period, demonstrating a persistent effect of the North Atlantic hydrology and sea ice advances on the Levant climate. The climatically “turmoil” post-glacial period was accompanied by significant developments in human culture: the collapse of the Natufian culture during the Bølling-Allerød and the rise of the Pre-Pottery Neolithic cultures, PPN A and B around the 11–10 kyr cal BP salt deposition interval marking the initiation of the “Neolithic revolution” in the region.

ZHANG 2014

Zhongshi Zhang, Gilles Ramstein, Mathieu Schuster, Camille Li, Camille Contoux & Qing Yan, *Aridification of the Sahara desert caused by Tethys Sea shrinkage during the Late Miocene*. *nature* **513** (2014), 401–404.

It is widely believed that the Sahara desert is no more than 2–3 million years (Myr) old, with geological evidence showing a remarkable aridification of north Africa at the onset of the Quaternary ice ages. Before that time, north African aridity was mainly controlled by the African summer monsoon (ASM), which oscillated with Earth's orbital precession cycles. Afterwards, the Northern Hemisphere glaciation added an ice volume forcing on the ASM, which additionally oscillated with glacial–interglacial cycles. These findings led to the idea that the Sahara desert came into existence when the Northern Hemisphere glaciated 2–3 Myr ago. The later discovery, however, of aeolian dune deposits 7 Myr old suggested a much older age, although this interpretation is hotly challenged and there is no clear mechanism for aridification around this time. Here we use climate model simulations to identify the Tortonian stage (7–11 Myr ago) of the Late Miocene epoch as the pivotal period for triggering north African aridity and creating the Sahara desert. Through a set of experiments with the Norwegian Earth System Model and the Community Atmosphere Model, we demonstrate that the African summer monsoon was drastically weakened by the Tethys Sea shrinkage during the Tortonian, allowing arid, desert conditions to expand across north Africa. Not only did the Tethys shrinkage alter the mean climate of the region, it also enhanced the sensitivity of the African monsoon to orbital forcing, which subsequently became the major driver of Sahara extent fluctuations. These important climatic changes probably caused the shifts in Asian and African flora and fauna observed during the same period, with possible links to the emergence of early hominins in north Africa.

Klima Isotope

BUIZERT 2014

Christo Buizert et al., *Greenland temperature response to climate forcing during the last deglaciation*. *science* **345** (2014), 1177–1180. [s345-1177-Supplement.pdf](#)

Christo Buizert, Vasileios Gkinis, Jeffrey P. Severinghaus, Feng He, Benoit S. Lecavalier, Philippe Kindler, Markus Leuenberger, Anders E. Carlson, Bo Vinther, Valérie Masson-Delmotte, James W. C. White, Zhengyu Liu, Bette Otto-Bliesner & Edward J. Brook

Greenland ice core water isotopic composition (d_{18O}) provides detailed evidence for abrupt climate changes but is by itself insufficient for quantitative reconstruction of past temperatures and their spatial patterns. We investigate Greenland temperature evolution during the last deglaciation using independent reconstructions from three ice cores and simulations with a coupled ocean-atmosphere climate model. Contrary to the traditional d_{18O} interpretation, the Younger Dryas period was $4.5 \pm 2^\circ\text{C}$ warmer than the Oldest Dryas, due to increased carbon dioxide forcing and summer insolation. The magnitude of abrupt temperature changes is larger in central Greenland (9° to 14°C) than in the northwest (5° to 9°C), fingerprinting a North Atlantic origin. Simulated changes in temperature seasonality closely track changes in the Atlantic overturning strength and support the hypothesis that abrupt climate change is mostly a winter phenomenon.

Kultur

FLANNERY 1999

Kent V. Flannery, *Process and Agency in Early State Formation*.
[Cambridge Archaeological Journal 9 \(1999\), 3–21.](#)

Most pristine states formed in the context of competing chiefdoms, when one of the latter succeeded in incorporating its rivals into a larger polity. Some of the processes evident during state formation include chiefly cycling, biased transmission, territorial expansion, and the gaining of competitive advantage. In some archaeological circles, however, it has become fashionable to reject ecological, demographic, and technological processes, and seek agent-based or ideological explanations for state formation. This essay, delivered as the tenth McDonald Lecture, examines five agents who modified ideologies and created states from chiefdoms. It concludes that process and agency are complementary, rather than antithetical, perspectives; thus the latter is unlikely to make the former obsolete.

HAYDEN 2009

Brian Hayden, *Funerals As Feasts: Why Are They So Important?*
[Cambridge Archaeological Journal 19 \(2009\), 29–52.](#)

Extremely lavish funeral feasts are common and expensive in many village and chiefdom societies. Anthropologists and politicians often explain such apparently economically irrational expenditures in terms of culture values or traditions. However, viewed from the broader perspective of other types of promotional feasts in transegalitarian or more complex societies (including marriages and house feasts), overtly competitive funeral feasts are used to advertise the success of the surviving family and kin groups. This socioeconomic promotion is important for attracting powerful/successful/wealthy families as affines and allies. Such allies are critical for defending family and individual self-interests in village political and economic struggles that are endemic. Funerals are especially apt contexts for these displays and political manoeuvres.

Kultur Metallzeiten

SAPIR-HEN 2014

Lidar Sapir-Hen & Erez Ben-Yosef, *The socioeconomic status of Iron Age metalworkers, Animal economy in the ‘Slaves’ Hill’, Timna, Israel*.
[Antiquity 88 \(2014\), 775–790.](#)

[Antiquity088-0775-Supplement.pdf](#)

The popular image of metalworking sites in desert settings envisages armies of slaves engaged in back-breaking labour. This is in conflict with ethnographic evidence indicating that skilled specialist metalworkers are often accorded high social status. This study approaches that contradiction directly by studying the remains of domesticated food animals from domestic and industrial contexts at Timna in southern Israel. The authors demonstrate that the higher-value meat cuts come from industrial contexts, where they were associated with the specialist metalworkers, rather than the ‘domestic’ contexts occupied by lower status workers engaged in support roles. It is suggested that the pattern documented here could also have been a feature of early metalworking sites in other times and places.

Keywords: Timna, Wadi Arabah, copper smelting, faunal analysis, Egyptians, craft specialists, social status

Kultur Neolithikum

LIU 2014

Xinyi Liu & Martin K. Jones, *Food globalisation in prehistory: top down or bottom up?* *Antiquity* **88** (2014), 956–963.

The connections between what happened in agricultural fields and what happened to the crops once they left the fields may be complex. Evidence suggests that agricultural innovations in the ancient world were primarily concerned with a need for calorie consumption, and that is the context in which we need to consider how innovations arose and what agents were involved (van der Veen 2010). This is equally true of episodes of food globalisation in the recent and distant pasts. Evidence suggests that various individuals and communities in society have played a role in such processes. The issue of social drivers discussed by Boivin et al. (2012) is an important one. In this paper we have followed that debate with a shift of focus. We have emphasised the temporal and spatial context, and the distinction between long-term processes and particular events both in relation to historical evidence and to earlier archaeological signatures. We have also taken issue with the emphasis upon the relationship between prestige, power and ‘exotic’ crops. Instead, we have emphasised the role played by the primary agents of agricultural production, the ordinary farming communities themselves.

Methoden

KRIESEL 2014

David Kriesel, *Traue keinem Scan, den du nicht selbst gefälscht hast.* *Spektrum der Wissenschaft* **2014**, x, 20–22. <<http://www.dkriesel.com/xerox>>.

Durch einen Softwarefehler haben Scankopierer der Firma Xerox bei der Datenkompression Ziffern verändert – seit acht Jahren.

Wenn die Archivare, wie oft üblich, die Originale vernichtet haben, bleibt ihnen nur, Jahresproduktionen an Dokumenten auf Plausibilität zu überprüfen. “Xerox kann die zählendrehenden Scanner reparieren, aber nicht die veränderten Dokumente”, titelte später treffend die Wirtschaftszeitschrift “Bloomberg Businessweek”.

Neolithikum

AIELLO 2011

Leslie C. Aiello, *The Origins of Agriculture: New Data, New Ideas, Wenner-Gren Symposium Supplement 4: Preface.* *Current Anthropology* **52** (2011), Supplement, S161–S162.

BANNING 1998

E. B. Banning, *The Neolithic Period, Triumphs of Architecture, Agriculture, and Art.* *Near Eastern Archaeology* **61** (1998), 188–237.

The territories within and flanking the Great Rift, including Lake Tiberias, the Jordan River, and the Dead Sea, hold a unique place in human history for the many milestones that occurred there. These include the earliest permanent, or at least nearly permanent, villages, the earliest substantial architecture, the earliest agricultural communities, the earliest pastoral nomadism, some of the earliest

portrait statuary, and some of the earliest steps toward economic inequality and political complexity. All of these developments took place, in whole or in part, during the Neolithic, which began more than 10,000 years ago and continued until about 4500 BCE. This article surveys and discusses some of the major issues and controversies surrounding this important period in the late prehistory of the Southern Levant, a region extending from Byblos in the north to the northern end of the Gulf of Aqaba/Eilat in the south, and from the Mediterranean to Wadi Sirhan.

BELFER-COHEN 2011

Anna Belfer-Cohen & A. Nigel Goring-Morris, *Becoming Farmers, The Inside Story*. [Current Anthropology 52 \(2011\), Supplement, S209–S220](#).

Neolithization processes in the Levant differed from those in Europe. A major population growth was already occurring in the former at the onset of the Late Glacial Maximum. Population growth was not linear but rather reflected local circumstances, both external and internal. In addition to changing environmental conditions, the social implications of growth in community sizes within specific areas should be taken into account. The solutions and mechanisms that people devised during the transition to agriculture in order to counter the stresses stemming from those developments pertain to the tempo and scope of the changes as well as to endemic traditions.

BOCQUET-APPEL 2011

Jean-Pierre Bocquet-Appel, *The Agricultural Demographic Transition During and After the Agriculture Inventions*. [Current Anthropology 52 \(2011\), Supplement, S497–S510](#).

An abrupt increase in fertility has been recorded in data from 200 cemeteries and ethnographic data ranging from the Meso-Neolithic Eurasian center in the Levant to the arctic circle in the North American continent in the twentieth century AD. This shift has been called, synonymously, the Neolithic demographic transition or the agricultural demographic transition (ADT). It is interpreted as the effect on fertility of an abrupt change in maternal energetics that occurs during the transition from a mobile forager economy to a farming economy in any period, whether prehistoric or historical. The primeval prehistoric ADT was a loop of retroactions capable of rapidly raising the rate of population growth and in which the population was both the cause and the effect of the demographic shift. During the eighteenth century AD, new areas of demographic change appeared across this agricultural population area that were characterized by a drop in mortality and then in fertility and were determined by the introduction of new rules of hygiene along with medical and contraceptive techniques. This shift represents the contemporary demographic transition (CDT). The CDT occurred in reverse symmetry with the ADT. A unique phenomenon occurred at the margins of the residual area of the forager system with a quasi coincidence of the effects of both the ADT and the CDT.

GORING-MORRIS 2011

A. Nigel Goring-Morris & Anna Belfer-Cohen, *Neolithization Processes in the Levant, The Outer Envelope*. [Current Anthropology 52 \(2011\), Supplement, S195–S208](#).

The Near East is one of those unique places where the transition(s) from hunter-gatherers to farmers occurred locally, so it is possible to observe the whole sequence of these processes within the region as a whole. We discuss the archaeological evidence pertaining to those transformations within the Levant, presenting

the particularistic local changes in settlement patterns and the character of the different communities juxtaposed with the landscapes and environmental background. The asynchronous developments clearly reflect the mosaic nature of the Levant in terms of specific local environmental conditions that influenced the scope and pace of Neolithization processes.

KUIJT 2002

Ian Kuijt & Nigel Goring-Morris, *Foraging, Farming, and Social Complexity in the Pre-Pottery Neolithic of the Southern Levant, A Review and Synthesis*. [Journal of World Prehistory](#) **16** (2002), 361–440.

The transition from foraging to farming of the Neolithic periods is one of, if not, the most important cultural processes in recent human prehistory. Integrating previously published archaeological materials with archaeological research conducted since 1980, the first half of this essay synthesizes our current understanding of archaeological data for the Pre-Pottery Neolithic period (ca. 11,700–ca. 8400 B.P.) of the southern Levant, generally defined as including southern Syria and Lebanon, Israel, the Palestinian Autonomous Authority, Jordan, and the Sinai peninsula of Egypt. The second half of the essay explores how these data inform archaeologists about the processes by which social differentiation emerged, the nature of regional and interregional connections, and the mechanisms and processes by which the transition from foraging to food production first occurred in the Neolithic.

Keywords: southern Levant; Neolithic; early agriculture; social organization.

ÖZDOĞAN 2011

Mehmet Özdoğan, *Archaeological Evidence on the Westward Expansion of Farming Communities from Eastern Anatolia to the Aegean and the Balkans*. [Current Anthropology](#) **52** (2011), Supplement, S415–S430.

The beginnings of the Neolithic way of life in Europe and the role played by the Anatolian Peninsula in this process are much-debated issues that involve a number of distinct topics. In this debate, it should not be overlooked that distinct from Europe, at least a portion of the Anatolian plateau had been part of the “Neolithic world” for at least 4,000 years before the appearance of the earliest claimed Neolithic culture in Europe. Accordingly, in viewing the interaction between southeastern Europe and the Aegean with the Anatolian Peninsula, the core area of primary Neolithization has to be considered.

PRICE 2011

T. Douglas Price & Ofer Bar-Yosef, *The Origins of Agriculture: New Data, New Ideas, An Introduction to Supplement 4*. [Current Anthropology](#) **52** (2011), Supplement, S163–S174.

This introduction to the symposium and to this issue of *Current Anthropology* attempts to provide some sense of the topic, the meeting itself, the participants, and some of the initial results. Our symposium brought together a diverse international group of archaeological scientists to consider a topic of common interest and substantial anthropological import—the origins of agriculture. The group included individuals working in most of the places where farming began. This issue is organized by chronology and geography. Our goal was to consider the most recent data and ideas from these different regions in order to examine larger questions of congruity and disparity among the groups of first farmers. There is much new information from a number of important areas, particularly Asia. Following a review of the history of investigation of agricultural origins, this introduction summarizes the results of the conference. There are at least 10 different places around

the world where agriculture was independently developed, and the antiquity of domestication is being pushed back in time with new discoveries. Our symposium has emphasized the importance of a multidisciplinary approach to such large questions in order to assemble as much information as possible. We anticipate that the results and consequences of this symposium will have long-term ripple effects in anthropology and archaeology.

ROWLEY-CONWY 2011

Peter Rowley-Conwy, *Westward Ho! The Spread of Agriculture from Central Europe to the Atlantic*. *Current Anthropology* **52** (2011), Supplement, S431–S451.

Recent work on the four major areas of the spread of agriculture in Neolithic western Europe has revealed that they are both chronologically and economically much more abrupt than has hitherto been envisaged. Most claims of a little agriculture in Late Mesolithic communities are shown to be incorrect. In most places, full sedentary agriculture was introduced very rapidly at the start of the Neolithic. “Transitional” economies are virtually absent. Consequently, the long-term processes of internal development from forager to farmer, so often discussed in Mesolithic-Neolithic Europe, are increasingly hard to sustain. The spread of agriculture by immigration is thus an increasingly viable explanation. The crucial role of boats for transport and of dairying for the survival of new farming settlements are both highlighted. Farming migrations were punctuated and sporadic, not a single wave of advance. Consequently, there was much genetic mixing as farming spread, so that agricultural immigrants into any region carried a majority of native European Mesolithic genes, not Near Eastern ones.

VIGNE 2011

Jean-Denis Vigne, Isabelle Carrère, François Briois & Jean Guilaine, *The Early Process of Mammal Domestication in the Near East, New Evidence from the Pre-Neolithic and Pre-Pottery Neolithic in Cyprus*. *Current Anthropology* **52** (2011), Supplement, S255–S271.

Recent archaeological investigations on Cyprus have unveiled unsuspected Late Glacial and Early Holocene (twelfth–tenth millennia cal BP) pieces of the island’s human history. Based on a review of the archaeological data and of the final results of the archaeozoological analyses of Sector 1 of the prepottery site at Shilloukambos, this paper examines how Cyprus improves our understanding of the process of mammal domestication in the Near East. Early introduction of controlled wild animals and then of early domestic lineages provides information about the modalities of the domestication process on the mainland. This information emphasizes the importance of technical skills, of local opportunities and adaptations, and of long-distance and increasing exchanges in the larger Near East area. Cyprus was a recipient of wild or domestic taxa from the continent through recurrent introductions, but it was fully part of the wider area of incipient farming, as seen in local innovations such as the intensive hunting/control of wild deer and boar or local domestication of wild/feral goats. The transition to farming during the tenth millennium appears to follow an unstable and opportunistic Early and Middle Pre-Pottery Neolithic B phase of low-level food production based on rapidly changing combinations of hunting, control, and breeding.

ZEDER 2011

Melinda A. Zeder, *The Origins of Agriculture in the Near East*. *Current Anthropology* **52** (2011), Supplement, S221–S235.

The emerging picture of plant and animal domestication and agricultural origins in the Near East is dramatically different from that drawn 16 years ago in a landmark article by Bar-Yosef and Meadow. While in 1995 there appeared to have been at least a 1,500-year gap between plant and animal domestication, it now seems that both occurred at roughly the same time, with initial management of morphologically wild future plant and animal domesticates reaching back to at least 11,500 cal BP, if not earlier. A focus on the southern Levant as the core area for crop domestication and diffusion has been replaced by a more pluralistic view that sees domestication of various crops and livestock occurring, sometimes multiple times in the same species, across the entire region. Morphological change can no longer be held to be a leading-edge indicator of domestication. Instead, it appears that a long period of increasingly intensive human management preceded the manifestation of archaeologically detectable morphological change in managed crops and livestock. Agriculture in the Near East arose in the context of broad-based systematic human efforts at modifying local environments and biotic communities to encourage plant and animal resources of economic interest. This process took place across the entire Fertile Crescent during a period of dramatic post-Pleistocene climate and environmental change with considerable regional variation in the scope and intensity of these activities as well as in the range of resources being manipulated.

Ostasien

COHEN 2011

David Joel Cohen, *The Beginnings of Agriculture in China, A Multiregional View*. [Current Anthropology 52 \(2011\), Supplement, S273–S293](#).
CurrAnth52-S273-Supplement.pdf

By 9000 cal BP, the first sedentary villages, marking the Early Neolithic, are present in Northeast China, North China, and the Middle and Lower Yangtze regions, but plant and animal domesticates do not make a substantial contribution to subsistence until after several more millennia, when domesticated millet or rice agricultural production is finally in place. While archaeobotanical approaches have been the primary focus of recent studies, this paper looks specifically at the cultural developments in these four regions leading up to the emergence of agriculture in each. It is hypothesized that agriculture does not emerge independently in each of these regions but rather in interrelated steps through variable forms of interaction and information and social exchange within and between these regions. Interaction is currently evidenced through shared forms of material culture and by parallel and contemporaneous cultural developments.

CRAWFORD 2011

Gary W. Crawford, *Advances in Understanding Early Agriculture in Japan*. [Current Anthropology 52 \(2011\), Supplement, S331–S345](#).

Six episodes—the Jomon, Yayoi, Tohoku Yayoi, Satsumon and Ainu, Okhotsk, and Gusuku—of agricultural development are examined. These events involve both indigenous adaptations as well as migration and diffusion to and within the Japanese archipelago. All but Jomon subsistence adaptations began as a result of migration and diffusion. Jomon populations engaged in niche construction/anthropogenesis that ranged from annual plant encouragement and probably management, lacquer tree (*Toxicodendron verniciflua*) and nut tree (*Castanea crenata* and *Aesculus turbinata*) management, and probable domestication of barnyard millet

and soybean as well as cultivation of bottle gourd and hemp and possible cultivation of *Perilla* and adzuki. These characteristics place the Jomon in a middle ground that is neither hunting and gathering nor traditionally conceptualized agriculture. A brief comparison with China shows late Upper Paleolithic and Early Neolithic/Early Jomon similarities that can inform discussions about agricultural origins. The Okhotsk raised pigs, grew a few crops, hunted and gathered; this culture also does not fit traditional definitions of an agricultural economy. The other episodes involve forms of agriculture similar to those found in mainland East Asia.

FULLER 2011

Dorian Q. Fuller, *Finding Plant Domestication in the Indian Subcontinent*. *Current Anthropology* **52** (2011), Supplement, S347–S362.

[CurrAnth52-S347-Supplement.pdf](#)

Recent research indicates that cultivation may have begun in as many as five regions of India before the introduction of exogenous crops and cultivation systems: South India, Orissa, the Middle Ganges, Saurashtra, and the Himalayan foothills of the Punjab region. These potential centers of crop origin have been triangulated from data on the biogeography of wild progenitors and a growing archaeobotanical database. Nevertheless, none of these centers provide unambiguous evidence for local domestication or evidence that domestication occurred entirely in the absence of introduced crops and food-production systems. One of the major lacunae is archaeobotanical evidence from hunter-gatherer sites or evidence of the transition to initial cultivation. In addition, documentation of the morphological changes accompanying domestication is available for only a few species. This paper reviews the arguments for local domestication in each of these five regions, paying particular attention to data that might document domestication processes. But an alternative hypothesis for several regions also can be considered in which agriculture arose as a result of secondary domestications of local species after an initial introduction of farming from outside. On the basis of these alternative working hypotheses, research priorities are identified for resolving these issues.

HIGHAM 2014

Charles Higham, *From the Iron Age to Angkor, New light on the origins of a state*. *Antiquity* **88** (2014), 822–835.

Excavations at four Iron Age moated sites in the Mun Valley in Thailand have identified seminal innovations, defined as emergent properties, that illuminate the origins of the kingdom of Angkor. Combined with recent research at Angkor itself, they present a compelling case for re-examining fundamental cultural changes that took place over a period of little more than four centuries, from AD 400–800. They compare with similarly rapid developments in Mesoamerica and Mesopotamia; fundamental parallels are evident in the role of charismatic agents for change, an ideology conferring god-like status on leaders, a new and highly productive economic base, an expanded interaction sphere for the exchange of prestige goods, and endemic warfare.

Keywords: Angkor, Iron Age, kingship, social change, rice, plough, reservoirs, state origins

LEE 2011

Gyoung-Ah Lee, *The Transition from Foraging to Farming in Prehistoric Korea*. *Current Anthropology* **52** (2011), Supplement, S307–S329.

As a secondary setting of agricultural origins, prehistoric Korea may offer insights into the social interactions involved in crop acquisition and the human modification of local landscapes to accommodate a new agrarian way of life. Recent

data may point to Korea as one of several areas where the local domestication of two crops, azuki and soybean, may have taken place. This paper explores various economic adaptations and transitions to resource production in several ecological and social settings, including the central west and southeast coasts, islands on the west coast, and the floodplains in central and southeastern Korea during the Chulmun period (7500–3400 BP). The paper reviews two popular explanations of the transition to food production, environmental impulse and migration, in the context of Korean archaeology and beyond.

ZHAO 2011

Zhijun Zhao, *New Archaeobotanic Data for the Study of the Origins of Agriculture in China*. *Current Anthropology* **52** (2011), Supplement, S295–S306.

In the past 10 years, flotation techniques have been introduced and implemented in Chinese archaeology. As a result, a tremendous quantity of plant remains have been recovered from archaeological sites located all over China. These plant remains include crops that might have been domesticated in China—such as rice, foxtail millet, broomcorn millet, and soybean—as well as crops that were introduced into China from other parts of world—such as wheat and barley. The new archaeobotanic data provide direct archaeological evidence for the study of the origins and development of agriculture in China. This paper attempts a synthesis of these new archaeobotanic data while presenting some new ideas about the origins and development of ancient agriculture in China, including the rice agriculture tradition that originated around the middle and lower Yangtze River areas; the dry-land agriculture tradition, with millets as major crops, centered in North China; and the ancient tropical agriculture tradition located in the tropical parts of China, where the major crops seem to be roots and tubers, such as taro.

Ozeanien

BELLWOOD 2011

Peter Bellwood, *Holocene Population History in the Pacific Region as a Model for Worldwide Food Producer Dispersals*. *Current Anthropology* **52** (2011), Supplement, S363–S378.

Pacific prehistory (excluding Australia) since 3000 BC reflects the impacts of two source regions for food production: China from the Yangzi southward (including Taiwan) and the western Pacific (especially the New Guinea Highlands). The linguistic (Austronesian, Trans–New Guinea), bioanthropological/ human genetic, and Neolithic archaeological records each carry signals of expansion from these two source regions. A combined consideration of the multiregional results within all three disciplines (archaeology, linguistics, and biology) offers a historical perspective that will never be obtained from one discipline or one region alone. The fundamental process of human behavior involved in such expansion—population dispersal linked to increases in human population size—is significant for explaining the early spreads of food production and language families in many parts of the world. This article is concerned mainly with the archaeological record for the expansion of early food producers, Austronesian languages, and Neolithic technologies through Taiwan into the northern Philippines as an early stage in what was to become the greatest dispersal of an ethnolinguistic population in world history before AD 1500.

DENHAM 2011

Tim Denham, *Early Agriculture and Plant Domestication in New Guinea and Island Southeast Asia*. *Current Anthropology* **52** (2011), Supplement, S379–S395.

A multidimensional conceptual framework is advanced that characterizes early agriculture as a subset of human-environment interactions. Three cross-articulating dimensions of human-environment interaction are considered that accommodate the varied expressions of early agriculture in different parts of the world: spatial scales, transformative mechanisms, and temporalities of associated phenomena. These ideas are applied and exemplified at two different scales of resolution—contextual and comparative—in terms of early agricultural development in the highlands of New Guinea and the dispersal of domesticates from New Guinea into Island Southeast Asia.

Politik

LONG 2014

Jerry Mark Long & Alex S. Wilner, *Delegitimizing al-Qaida, Defeating an “Army Whose Men Love Death”*. *International Security* **39** (2014), 126–164.

Two conflicts are being waged in the Middle East and beyond. Each has its logic and its weapons. The more obvious is the asymmetrical war that pits drones and Special Operations forces against roadside bombs and suicide bombers. Both sides struggle for positional advantage or to (re)gain territory. Both forces must concern themselves with the mundane but critical issues of resupply and logistical support. The second conflict—the one that often goes unseen—is that of ideas. On the one side are notions of constitutional liberalism, individual rights, and a respect for religious pluralism, even in a religiously oriented state. On the other is a categorical, all-encompassing, and noncompromising jihadist vision that calls for a renewed caliphate and the implementation of a rigorous and sometimes draconian religious law. That vision informs the metanarrative that al-Qaida promulgates, as it seeks to gain acceptance in Arab and Islamic communities. Delegitimization, we propose, is the strategy of choice to deploy in this second conflict, especially in this season of the Arab Spring.

Story or Book

KISSEL 2014

Theodor Kissel, *Frau Pharao*. *nature* **2014**, x, 89–92.

Böse Schwiegermutter oder staatstragende Regentin? Ein neues Buch beleuchtet Leben und Wirken der ägyptischen Pharaonin Hatschepsut.

Peter Nadig. Hatschepsut. Philipp von Zabern, Darmstadt 2014 208 S., E 29,95

Hatschepsut kümmerte sich in besonderer Weise um die Verhältnisse im Landesinnern und pflegte gute Beziehungen zu den Nachbarstaaten. Sie setzte neue Impulse in Kunst und Kultur, ließ Tempel errichten und vernachlässigte Gebäude restaurieren.

Im Licht der neueren Forschung ist dem Autor ein fundiertes, sachliches, dabei aber anregendes und fesselndes Buch gelungen. Auch ägyptologisch eher wenig bewanderte Leser bekommen hier eine recht verständliche Einführung in die Welt des alten Ägyptens geboten.

RAEBURN 2014

Paul Raeburn, *The write stuff*. [nature 513 \(2014\), 309–310](#).

Steven Pinker’s provocative treatise on language use and abuse would benefit from more data, finds Paul Raeburn.

The Sense of Style: The Thinking Person’s Guide to Writing in the 21st Century. Steven Pinker. Allen Lane: 2014.

He covers much of the same ground as the classic guides, including frequently misused words (“fulsome” and “noisome”) and the serial comma. His problem with Strunk & White, however, is that the authors lack tools for analysing language, and so end up “vainly appealing to the writer’s ‘ear’”.

His views are informed by psycholinguistics; that is his day job. But he promises us science, so I expected to see data. However, in this instance, and in many others, the data are not there.

Pinker also reveals himself at the outset to be not a prescriptivist, like Strunk and White, but a descriptivist, who sees language as “a wiki that pools the contributions of millions of writers and speakers”. I agree: we make the language. But if that is the case, science probably can’t do any better than Strunk & White at dictating style. The only legitimate data come from the people. So maybe it is too soon to jettison the classic style manuals: I suspect much of Pinker’s sense of style comes less from his science than from his own wonderful writer’s ear.

ROLAND 2014

Rebecca Roland, *Extraction, Total recall*. [nature 513 \(2014\), 454](#).

Then she usually erased them from her memory. She didn’t want her own baggage, much less anybody else’s.