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Literatur

Aktuell

Foster 2012

James H. Foster, Benjamin A. Brooks, Dailin Wang, Glenn S. Carter & Mark A. Merrifield, *Improving tsunami warning using commercial ships*. Geophysical Research Letters **39** (2012), L09603. DOI:10.1029/2012GL051367.

[1] Accurate and rapid detection and assessment of tsunamis is critical for effective mitigation. We show here that a modest ≈10 cm tsunami from the M8.8 27 Feb 2010 Maule, Chile earthquake was detected by kinematic Global Positions System (GPS) solutions from a ship underway in the open ocean – the first time shipboard tsunami detection has been achieved. Our results illustrate how the commercial shipping fleet represents a vast infrastructure of potential open ocean GPS platforms on shipping lanes that provide extremely good spatial coverage around most tsunamigenic source regions. Given the affordability of geodetic GPS systems, and ever-improving satellite communications, it would be possible to equip a significant portion of the shipping fleet with real-time-streamed GPS systems and create a cost-effective tsunami monitoring network with denser and more distributed coverage. We project that such a system would have detected the 2004 Indian Ocean tsunami in less than an hour.

Fujita 2012

Masako Fujita, Eric Roth, Yun-Jia Lo, Carolyn Hurst, Jennifer Vollner & Ashley Kendell, *In Poor Families, Mothers' Milk is Richer for Daughters than Sons: A Test of Trivers-Willard Hypothesis in Agropastoral Settlements in Northern Kenya*. American Journal of Physical Anthropology (2012) preprint, 1–8. DOI:10.1002/ajpa.22092.

AmJPhysAnth2012-preprint-Supplement.png

The Trivers-Willard hypothesis predicts the unequal parental investment between daughters and sons, depending on maternal condition and offspring reproductive potential. Specifically, in polygynous populations where males have higher reproductive variance than females, it predicts that mothers in good condition will invest more in sons, whereas mothers in poor condition will invest more in daughters. Previous studies testing this hypothesis focused on behavioral investment, whereas few examined biological investment. This study investigates the Trivers-Willard hypothesis on both behavioral and biological parental investment by examining breastfeeding frequencies and breast milk fat concentrations. Data from exclusively breastfeeding mothers in Northern Kenya were used to test hypotheses: Economically sufficient mothers will breastfeed sons more frequently than daughters, whereas poor mothers will breastfeed daughters more frequently than sons, and economically sufficient mothers will produce breast milk with higher fat concentration for sons than daughters, whereas poor mothers will produce breast milk with higher fat concentration for daughters than sons. Linear regression models were applied, using breastfeeding frequency or log-transformed milk fat as the dependent variable, and offspring's sex (son = 1/daughter = 0), socioeconomic status (higher = 1/lower = 0), and the sex-wealth interaction as the predictors, controlling for covariates. Our results only supported the milk fat hypothesis: infant's sex and socioeconomic status interacted ($P = 0.014$, $n = 72$) in their relation with milk fat concentration. The model estimated that economically sufficient mothers produced richer milk for sons than daughters (2.8 vs.

0.6 gm/dl) while poor mothers produced richer milk for daughters than sons (2.6 vs. 2.3 gm/dl). Further research on milk constituents in relation to offspring's sex is warranted. KEY WORDS breastfeeding frequency; human milk fat; maternal investment; nutrition; Africa

Larson 2012

Greger Larson et al., *Rethinking dog domestication by integrating genetics, archeology, and biogeography*. PNAS **109** (2012), 8878–8883.

pnas109-08878-Supplement1.docx, pnas109-08878-Supplement2.docx, pnas109-08878-Supplement3.docx, pnas109-08878-Supplement4.docx

Greger Larson, Elinor K. Karlsson, Angela Perri, Matthew T. Webster, Simon Y. W. Ho, Joris Peters, Peter W. Stahl, Philip J. Piper, Frode Lingaas, Merete Fredholm, Kenine E. Comstock, Jaime F. Modiano, Claude Schelling, Alexander I. Agoulnik, Peter A. Leegwater, Keith Dobney, Jean-Denis Vigne, Carles Vilà, Leif Andersson and Kerstin Lindblad-Toh

The dog was the first domesticated animal but it remains uncertain when the domestication process began and whether it occurred just once or multiple times across the Northern Hemisphere. To ascertain the value of modern genetic data to elucidate the origins of dog domestication, we analyzed 49,024 autosomal SNPs in 1,375 dogs (representing 35 breeds) and 19 wolves. After combining our data with previously published data,we contrasted the genetic signatures of 121 breeds with a worldwide archeological assessment of the earliest dog remains. Correlating the earliest archeological dogs with the geographic locations of 14 so-called "ancient" breeds (defined by their genetic differentiation) resulted in a counterintuitive pattern. First, none of the ancient breeds derive from regions where the oldest archeological remains have been found. Second, three of the ancient breeds (Basenjis, Dingoes, and New Guinea Singing Dogs) come from regions outside the natural range of Canis lupus (the dog's wild ancestor) and where dogs were introduced more than 10,000 y after domestication. These results demonstrate that the unifying characteristic among all genetically distinct so-called ancient breeds is a lack of recent admixture with other breeds likely facilitated by geographic and cultural isolation. Furthermore, these genetically distinct ancient breeds only appear so because of their relative isolation, suggesting that studies of modern breeds have yet to shed light on dog origins. We conclude by assessing the limitations of past studies and how next-generation sequencing of modern and ancient individuals may unravel the history of dog domestication.

genomics | phylogeography

Lawler 2012

Andrew Lawler, *Dams Along Sudanese Nile Threaten Ancient Sites*. science **336** (2012), 967–968.

The Upper Nile in northern Sudan served as the major transportation corridor between sub-Saharan Africa and Egypt for thousands of years and includes part of the region known as Nubia, which has a rich prehistory. Africa's first civilization and writing south of Egypt also emerged there. In 2009, the $ 2 billion Merowe Dam on the Nile's fourth cataract in Sudan flooded a vast area after limited archaeological investigations. "The lesson from that is we need to get into these areas as soon as possible," said Neal Spencer, an archaeologist with the British Museum.

In preliminary surveys, Edwards counted more than 700 sites spanning 5000 years, including a rare settlement predating the Kerma civilization, the first Nubian kingdom, which flourished starting about 2500 B.C.E. Because so little is known about the origins of Kerma, excavating that settlement is "an absolute priority," Edwards says. He also cataloged a "massive and classic Kerma site" as well as New Kingdom Egyptian sites. Medieval churches and forts dot the area, as do later traditional Nubian fortified tower houses and rock carvings.

Biologie

Barnosky 2012

Anthony D. Barnosky et al., *Approaching a state shift in Earth's biosphere*. nature **486** (2012), 52–58.

Anthony D. Barnosky, Elizabeth A. Hadly, Jordi Bascompte, Eric L. Berlow, James H. Brown, Mikael Fortelius, Wayne M. Getz, John Harte, Alan Hastings, Pablo A. Marquet, Neo D. Martinez, Arne Mooers, Peter Roopnarine, Geerat Vermeij, John W. Williams, Rosemary Gillespie, Justin Kitzes, Charles Marshall, Nicholas Matzke, David P. Mindell, Eloy Revilla & Adam B. Smith

Localized ecological systems are known to shift abruptly and irreversibly from one state to another when they are forced across critical thresholds. Here we review evidence that the global ecosystem as a whole can react in the same way and is approaching a planetary-scale critical transition as a result of human influence. The plausibility of a planetary-scale 'tipping point' highlights the need to improve biological forecasting by detecting early warning signs of critical transitions on global as well as local scales, and by detecting feedbacks that promote such transitions. It is also necessary to address root causes of how humans are forcing biological changes.

Trivers 1973

Robert L. Trivers, *Natural Selection of Parental Ability to Vary the Sex Ratio of Offspring*. science **179** (1973), 90–92.

Theory and data suggest that a male in good condition at the end of the period of parental investment is expected to outreproduce a sister in similar condition, while she is expected to outreproduce him if both are in poor condition. Accordingly, natural selection should favor parental ability to adjust the sex ratio of offspring produced according to parental ability to invest. Data from mammals support the model: As maternal condition declines, the adult female tends to produce a lower ratio of males to females.

Trivers 1974

Robert L. Trivers, *Parent-Offspring Conflict*. American Zoologist **14** (1974), 249–264.

When parent-offspring relations in sexually reproducing species are viewed from the standpoint of the offspring as well as the parent, conflict is seen to be an expected feature of such relations. In particular, parent and offspring are expected to disagree over how long the period of parental investment should last, over the amount of parental investment that should be given, and over the altruistic and egoistic tendencies of the offspring as these tendencies affect other relatives. In addition, under certain conditions parents and offspring are expected to disagree over the preferred sex of the potential offspring. In general, parent-offspring conflict is expected to increase during the period of parental care, and offspring are expected to employ psychological weapons in order to compete with their parents. Detailed data on mother-offspring relations in mammals are consistent with the arguments presented. Conflict in some species, including the human species, is expected to extend to the adult reproductive role o£ the offspring: under certain conditions parents are expected to attempt to mold an offspring, against its better interests, into a permanent nonreproductive.

Datierung

Higham 2011

T. Higham, F. Brock, C. Bronk Ramsey, W. Davies, R. Wood & L. Basell,

Chronology of the site of Grotte du Renne, Arcy-sur-Cure, France: implications for Neanderthal symbolic behaviour. Before Farming **2011**, ii, 1–9.
Higham et al (2010) published a large series of new dates from the key French Palaeolithic site of the Grotte du Renne at Arcy-sur-Cure. The site is important because it is one of only two sites in Europe in which Chatelperronian lithic remains co-occur with Neanderthal human remains. A large series of dates from the Mousterian, Chatelperronian, Aurignacian and Gravettian levels of the site was obtained. The 14C results showed great variability, which Higham et al (2010) interpreted as most likely to be due to mixing of archaeological material in the site. In contrast, Caron et al (2011) suggested that the site stratigraphy is well preserved and that the problem with the variability in the radiocarbon ages was due to unremoved contamination in the dated bone. In this paper we address their critique of the original Higham et al (2010) paper.
Keywords: AMS radiocarbon dating, solvent pretreatment, Arcy-sur-Cure, Neanderthal, Chatelperronian, Bayesian modelling

Miyake 2012

Fusa Miyake, Kentaro Nagaya, Kimiaki Masuda & Toshio Nakamura, *A signature of cosmic-ray increase in AD 774–775 from tree rings in Japan*. nature **486** (2012), 240–242.
n486-0240-Supplement.pdf
Increases in 14C concentrations in tree rings could be attributed to cosmic-ray events1-7, as have increases in 10Be and nitrate in ice cores8,9. The record of the past 3,000 years in the IntCal09 data set10, which is a time series at 5-year intervals describing the 14C content of trees over a period of approximately 10,000 years, shows three periods during which 14C increased at a rate greater than 3 ‰ over 10 years. Two of these periods have been measured at high time resolution, but neither showed increases on a timescale of about 1 year (refs 11 and 12). Here we report 14C measurements in annual rings of Japanese cedar trees from AD 750 to AD 820 (the remaining period), with 1- and 2-year resolution. We find a rapid increase of about 12 ‰ in the 14C content from AD 774 to 775, which is about 20 times larger than the change attributed to ordinary solar modulation. When averaged over 10 years, the data are consistent with the decadal IntCal 14C data from North American and European trees13. We argue that neither a solar flare nor a local supernova is likely to have been responsible.

Talamo 2012

Sahra Talamo, Konrad A. Hughen, Bernd Kromer & Paula J. Reimer, *Debates over Palaeolithic chronology – the reliability of 14C is confirmed*. Journal of Archaeological Science **39** (2012), 2464–2467.
JArchSci39-2464-Supplement.doc
The debate about the complex issues of human development during the Middle to Upper Palaeolithic transition period (45–35 ka BP) has been hampered by concerns about the reliability of the radiocarbon dating method. Large 14C anomalies were postulated and radiocarbon dating was considered flawed. We show here that these issues are no longer relevant, because the large anomalies are artefacts beyond plausible physical limits for their magnitude. Previous inconsistencies between 14C radiocarbon datasets have been resolved, and a new radiocarbon calibration curve, IntCal09 (Reimer et al., 2009), was created. Improved procedures for bone collagen extraction and charcoal pre-treatment generally result in older ages, consistent with independently dated time markers.
Keywords: Middle-Upper Palaeolithic transition | Reliability of radiocarbon dating | Radiocarbon calibration

Grabung

Linstädter 1999

Jörg Linstädter, *Leben auf der Düne, Der mittelneolithische Fundplatz Wadi Bakht 82/21 im Gilf Kebir (Südwest-Ägypten).* Archäologische Informationen **22** (1999), 115–124.

Der Name Wadi Bakht 82/21 bezeichnet einen Oberflächenfundplatz in einem der östlichen Trockentäler des Gilf-Kebir-Plateaus in Südwest-Ägypten (Abb. 1). Hier wurden auf einer mehrere Hektar großen, artefaktbedeckten pleistozänen Düne zwei Grabungsflächen von insgesamt 59 m2 untersucht. 14C-Daten stellen das hier ausgegrabene Material in die zweiten Hälfte des 6. Jahrtausends v. Chr. Bei der Bearbeitung von Wadi Bakht 82/21 standen vor allem Fragen der Siedlungsdynamik im Vordergrund. Durch die spezielle geographische Situation des Gilf Kebir innerhalb des zeitweise lebensfeindlichen Siedlungsraumes Ostsahara spielten seine Täler auch in Zeiten relativer Klimagunst eine besondere Rolle bei der Frage der Siedlungsplatzsuche. Durch seine übersichtliche Struktur bietet dieser Platz die Möglichkeit, ein kleinräumiges Siedlungsgeschehen zu rekonstruieren. Des weiteren sollten unter Beachtung der speziellen Ablagerungsbedingungen die Aussagemöglichkeiten eines solchen Materials überprüft sowie dessen chronologische Einordnung bestimmt werden.

Grundlagen

Roques 2012

Lionel Roques, Jimmy Garnier, François Hamel & Etienne K. Klein, *Allee effect promotes diversity in traveling.* PNAS **109** (2012), 8828–8833.

Most mathematical studies on expanding populations have focused on the rate of range expansion of a population. However, the genetic consequences of population expansion remain an understudied body of theory. Describing an expanding population as a traveling wave solution derived from a classical reaction-diffusion model, we analyze the spatio-temporal evolution of its genetic structure. We show that the presence of an Allee effect (i.e., a lower per capita growth rate at low densities) drastically modifies genetic diversity, both in the colonization front and behind it. With an Allee effect (i.e., pushed colonization waves), all of the genetic diversity of a population is conserved in the colonization front. In the absence of an Allee effect (i.e., pulled waves), only the furthest forward members of the initial population persist in the colonization front, indicating a strong erosion of the diversity in this population. These results counteract commonly held notions that the Allee effect generally has adverse consequences. Our study contributes new knowledge to the surfing phenomenon in continuous models without random genetic drift. It also provides insight into the dynamics of traveling wave solutions and leads to a new interpretation of the mathematical notions of pulled and pushed waves.

Judentum

Werlin 2006

Steven H. Werlin, *Eagle Imagery in Jewish Relief Sculpture of Late Ancient Palestine: Survey and Interpretation.* Master's thesis, University of North Carolina at Chapel Hill (Chapel Hill 2006).

The following study examines the image of the eagle in the architectural relief sculpture of Palestinian synagogues as well as on Jewish sarcophagi. The buildings and sarcophagi on which these objects were displayed are dated between the third and sixth century C.E.

Chapter one introduces the topic by presenting some general background to the state of research and by defining relevant terms for the study. Chapter two presents the primary evidence in the form of a rudimentary catalogue. Chapter three examines the so-called "Eagle Incident" described by the ancient historian, Josephus, in War 1.648-55 and Antiq. 17.151-63.
Chapter four seeks to understand the meaning of the eagle-symbol within the literature familiar to Jews of late ancient Palestine. Chapter five presents the author's interpretation of the eagle-symbol in both the sculptural remains and literary references. It considers the relationship of the image and meaning to Near Eastern and Byzantine art in light of the religious trends in late ancient Jewish society.

Werlin 2009

Steven H. Werlin, *Appetite for Destruction? The Archaeological Evidence for Jewish Iconoclasm, Delivered at 2009 Annual Meeting of the American Schools of Oriental Research New Orleans, LA 19 November 2009.* (Unpublished 2009). <http://www.academia.edu/attachments/2609378/download_file> (2012-06-21).

Based on the evidence we have examined today, I would to draw a few conclusions. First, regarding the interpretation of the evidence: It is clear (at least to me) that preconceptions of Jewish views toward images have shaped interpretations of the evidence for Jewish iconoclasm in northern Palestine. Positivistic conclusions that are not based on established stratigraphic data are particularly irksome when picked up by researchers in historical and literary studies who trust the archaeologists to provide critical interpretations of the data.
Second, regarding the actual evidence of iconoclasm in Jewish contexts of late antiquity, we have seen that the phenomenon may not have been as extensive as has been assumed. In fact, the verifiable evidence seems to be limited to southern Palestine. Now, I admit that this may result from the nature of the evidence-whether it is the dating of these synagogues, or the media in which the iconoclasm occurred. That said, given the similarity with and extensiveness of church iconoclasm in the region, I suggest that all future treatments of Jewish iconoclasm should consider it as integrally part of a broader, inter-religious phenomenon of late antique Palestine. As with most interpretations of material evidence, knowledge of the general context provides the fullest explanation of the specific instance.

Jungpaläolithikum

Tartar 2012

Elise Tartar, *The recognition of a new type of bone tools in Early Aurignacian assemblages: implications for understanding the appearance of osseous technology in Europe.* Journal of Archaeological Science **39** (2012), 2348–2360.

Despite being at the heart of the question of the emergence of the European Upper Palaeolithic, the Aurignacian osseous industry is essentially known by the production of split-based points, ornaments and portable art whereas bone tools, usually dedicated to domestic tasks and with variable technical complexity, have been largely ignored. However, when the high number of unworked tools is included — i.e. bone fragments recovered from food processing and used directly as tools with no previous shaping phase – bone tools represent a significant proportion of the Early Aurignacian industry. Among these unworked tools, is a newly-discovered type: "unworked intermediate tools." This article presents a detailed description based on taphonomic, typological and technological

characters. It shows that these tools are diaphyseal fragments which are used directly as a wedge, very likely for woodworking and perhaps for antler processing. The processes behind the appearance of osseous technology at the beginning of the Upper Palaeolithic in Europe are then discussed in light of this discovery and, more generally, the revised composition of the Early Aurignacian toolkit. The high proportion of unworked bone tools, a type more commonly associated with the Middle Palaeolithic, suggests a more gradual technological shift between Middle and Upper Palaeolithic than has previously been considered. As part of this hypothesis, the emergence of working osseous material could be due to a gradual transfer of techniques previously applied to wood, as others have proposed.
Keywords: Aurignacian | Unworked intermediate tools | Bone tools | Woodworking | Technical transfer | Appearance of osseous technology | Abri Castanet | Grotte des Hyènes | Grotte Gatzarria

Klima

Dorshow 2012

Wetherbee Bryan Dorshow, *Modeling agricultural potential in Chaco Canyon during the Bonito phase: a predictive geospatial approach*. Journal of Archaeological Science **39** (2012), 2098–2115.
JArchSci39-2098-Supplement.pdf
This study presents a geospatial analysis of surficial hydrology and geomorphology and their relationship to potential agricultural productivity in order to better understand the economic role of water in Chaco Canyon during the Bonito Phase (ca. AD 850–1150). Defined as the Natural Agricultural Suitability Analysis, the foundation of this study is a hierarchical geospatial analysis that integrates six key natural factors: slope, soil texture, soil depth, non-catastrophic overbank flooding potential, drainage flow length, and drainage proximity and flow potential. These factors are combined through a raster weighted overlay function to generate composite suitability map that offers a testable proxy for variability in relative agricultural potential during the Bonito Phase at Chaco. The rationale for including this set of natural factors is based largely on ethnographic and modern agricultural studies, but the predictive model differs from previous studies of agricultural potential in that it is independent of the specific archaeological distribution of evidence of agriculture in the study area. The results of this analysis suggest that previous models of Chacoan agricultural productivity have underestimated local production capacity. Previous studies have focused solely on floodplain contexts, whereas this study points to a more comprehensive and geographically distributed use of the landscape.
Keywords: Chaco | Bonito phase | GIS | Agriculture | Geospatial analysis | Agricultural potential | Agricultural productivity | LiDAR | Hydrology | Geomorphology | Predictive model | Chaco canyon | Great house | Anasazi | Water | Maize | Simulation | Landscape reconstruction

Finlayson 2008

G. Finlayson, C. Finlayson, F. Giles Pacheco, J. Rodriguez Vidal, J. S. Carrión, & J. M. Recio Espejo, *Caves as archives of ecological and climatic changes in the Pleistocene, The case of Gorham's cave, Gibraltar*. Quaternary International **181** (2008), 55–58.
In this paper, we describe a new method for quantitative reconstruction of bioclimate using a combination of multi-scale ecological datasets of present-day distributions of species with fossil plant and bird data derived from cave deposits of known age. In the specific case of Gorham's Cave, Gibraltar, we make predictions as to the prevailing climate during the Last Glacial Maximum (LGM). Our results indicate only slight variations

compared to present-day climate. The present-day climatic regime is encompassed by a wider regime during the LGM. The importance of caves as climate archives is highlighted and our results additionally give focus to the generally underestimated importance of small-scale refugia during glacials.

LaRiviere 2012

Jonathan P. LaRiviere et al., *Late Miocene decoupling of oceanic warmth and atmospheric carbon dioxide forcing.* nature **486** (2012), 97–100.

n486-0097-Supplement1.pdf, n486-0097-Supplement2.xls

Jonathan P. LaRiviere, A. Christina Ravelo, Allison Crimmins, Petra S. Dekens, Heather L. Ford, Mitch Lyle & Michael W. Wara

Deep-time palaeoclimate studies are vitally important for developing a complete understanding of climate responses to changes in the atmospheric carbon dioxide concentration (that is, the atmospheric partial pressure of CO2, pCO2)1. Although past studies have explored these responses during portions of the Cenozoic era (the most recent 65.5 million years (Myr) of Earth history), comparatively little is known about the climate of the late Miocene (≈12-5 Myr ago), an interval with pCO2 values of only 200-350 parts per million by volume but nearly ice-free conditions in the Northern Hemisphere2,3 and warmer-than-modern temperatures on the continents4. Here we present quantitative geochemical sea surface temperature estimates from the Miocene mid-latitude North Pacific Ocean, and show that oceanic warmth persisted throughout the interval of low pCO2 ≈12-5 Myr ago. We also present new stable isotope measurements from the western equatorial Pacific that, in conjunction with previously published data5-10, reveal a long-term trend of thermocline shoaling in the equatorial Pacific since 13 Myr ago. We propose that a relatively deep global thermocline, reductions in low-latitude gradients in sea surface temperature, and cloud and water vapour feedbacks may help to explain the warmth of the late Miocene. Additional shoaling of the thermocline after 5 Myr ago probably explains the stronger coupling between pCO2 , sea surface temperatures and climate that is characteristic of the more recent Pliocene and Pleistocene epochs11,12.

Mittelpaläolithikum

Ferentinos 2012

George Ferentinos, Maria Gkioni, Maria Geraga & George Papatheodorou, *Early seafaring activity in the southern Ionian Islands, Mediterranean Sea.* Journal of Archaeological Science **39** (2012), 2167–2176.

This paper summarises the current development in the southern Ionian Islands (Kefallinia and Zakynthos) prehistory and places it within the context of seafaring. Archaeological data from the southern Ionian Islands show human habitation since Middle Palaeolithic going back to 110 ka BP yet bathymetry, sea-level changes and the Late Quaternary geology, show that Kefallinia and Zakynthos were insular at that time. Hence, human presence in these islands indicates inter island-mainland seafaring. Seafaring most likely started some time between 110 and 35 ka BP and the seafarers were the Neanderthals. Seafaring was encouraged by the coastal configuration, which offered the right conditions for developing seafaring skills according to the "voyaging nurseries" and "autocatalysis" concepts.

Keywords: Stone-age seafaring | Neanderthal | Ionian Sea | Mediterranean Sea | Late Quaternary geology

Lazuén 2012

Talía Lazuén, *European Neanderthal stone hunting weapons reveal com-*

plex behaviour long before the appearance of modern humans. Journal of Archaeological Science **39** (2012), 2304–2311.
Stone weapon points constitute a major innovation appearing at the end of the Middle Pleistocene in Europe, Africa and the Near East; that is, among both sapiens and Neanderthal populations. The microscopic analysis of the stone weapons used by Neanderthal groups in Atlantic southern Europe suggests that this technology was widespread and became a recurrent behaviour within organised strategies developed by these societies. In this southern region of Europe, stone weapon hunting technology appears at an early time (about 150 ka, OIS 6) and is associated with the hunting of large mammals. This behaviour can be recognised in a geomorphologically complex region and at a time of great environmental change (OIS 6–5–4). The fact that these innovations were used by European Neanderthals long before the spread of anatomically modern humans in the area is of great evolutionary significance.
Keywords: Human evolution | Neandertal | Stone weapon | Hunting | Atlantic Europe | Use-wear analysis

Story or Book

Correll 2012
Robert Nathan Correll, *Squealer, Mouthpiece for a generation.* nature **486** (2012), 286.

Lucht 2012
Michael W. Lucht, *After experiment seven, Parallel processing.* nature **486** (2012), 152.

Werlin 2011
Steven H. Werlin, *A stranger in Jewish Britain.* Jerusalem Post Magazine (2011-03-18), 16–18.
The romantic notion that Jews are Jews all over the world is an appealing one.

Synagogen

Werlin 2012
Steven H. Werlin, *The late ancient synagogues of southern Palestine.* Dissertation, University of North Carolina at Chapel Hill (Chapel Hill 2012).
Following the failure of the Bar-Kokhba revolt in 135/6 C.E., the majority of the Jewish population of ancient Palestine migrated northward away from Jerusalem to join communities of Jews in Galilee and the Golan Heights. Although rabbinic sources indicate that from the 2nd c. onward the demographic center of Jewish Palestine was in Galilee, archaeological evidence of Jewish communities is found in the southern part of the country as well.
Ten synagogues from the period after the Bar-Kokhba revolt are known from southern Palestine. They are located at the sites of Na'aran and Jericho in the Lower Jordan Valley, En-Gedi on the eastern shore of the Dead Sea, Kh. Susiya, Eshtemoa, H. 'Anim, and H. Ma'on in the southern Hebron Hills, H. Rimmon in the Judean Shephelah, and Gaza-Maiumas and Ma'on-Nirim on the southern Mediterranean coast. The present study is a detailed analysis of these ten synagogues. The primary goals are to (a) review critically the excavation projects carried out at these sites, particularly the chronological

conclusions of the excavators, and (b) determine what aspects of these synagogues, if any, serve to unite them as a distinct regional group.

From the critical examination of the published finds and reports, this dissertation concludes that, despite the views of some of the excavators, none of these synagogues can be dated conclusively to before the mid-4th c. The dates of construction generally are fixed at no later than the 6th or 7th c. Therefore, these ten synagogues should be considered products of the Byzantine period.

As a group, these ten synagogues do not display unifying features that are distinct from the synagogues in Lower Galilee. However, there are some notable differences between the southern synagogues and those of the Golan and Upper Galilee. Some of the southern synagogues bear evidence of inter-religious contact between Jews and Christians in the art, architecture, and religious concerns expressed in the material culture. Although the evidence for such contact does not differ significantly from the synagogues in Lower Galilee and the Beth-Shean region, the conclusion to this study highlights the importance of considering Jewish-Christian relations in the interpretation of late antique Palestinian Judaism by suggesting topics for further inquiry.