

References

Anthropologie

CORBEY 2016

Raymond Corbey, Adam Jagich, Krist Vaesen & Mark Collard, *The Acheulean Handaxe, More Like a Bird's Song Than a Beatles' Tune?* [Evolutionary Anthropology](#) **25** (2016), 6–19.

[EvolAnth27-021-Wynn.pdf](#)

The goal of this paper is to provoke debate about the nature of an iconic artifact—the Acheulean handaxe. Specifically, we want to initiate a conversation about whether or not they are cultural objects. The vast majority of archeologists assume that the behaviors involved in the production of handaxes were acquired by social learning and that handaxes are therefore cultural. We will argue that this assumption is not warranted on the basis of the available evidence and that an alternative hypothesis should be given serious consideration. This alternative hypothesis is that the form of Acheulean handaxes was at least partly under genetic control.

MITTNIK 2018

Alissa Mittnik et al., *The genetic prehistory of the Baltic Sea region.* [Nature Communications](#) **9** (2018), 442, 1–11. DOI:10.1038/s41467-018-02825-9.

Alissa Mittnik, Chuan-Chao Wang, Saskia Pfrenkle, Mantas Daubaras, Gunita Zarina, Fredrik Hallgren, Raili Allmäe, Valery Khartanovich, Vyacheslav Moiseyev, Mari Torv, Anja Furtwängler, Aida Andrades Valtuena, Michal Feldman, Christos Economou, Markku Oinonen, Andrejs Vasks, Elena Balanovska, David Reich, Rimantas Jankauskas, Wolfgang Haak, Stephan Schiffels & Johannes Krause

While the series of events that shaped the transition between foraging societies and food producers are well described for Central and Southern Europe, genetic evidence from Northern Europe surrounding the Baltic Sea is still sparse. Here, we report genome-wide DNA data from 38 ancient North Europeans ranging from \approx 9500 to 2200 years before present. Our analysis provides genetic evidence that hunter-gatherers settled Scandinavia via two routes. We reveal that the first Scandinavian farmers derive their ancestry from Anatolia 1000 years earlier than previously demonstrated. The range of Mesolithic Western huntergatherers extended to the east of the Baltic Sea, where these populations persisted without gene-flow from Central European farmers during the Early and Middle Neolithic. The arrival of steppe pastoralists in the Late Neolithic introduced a major shift in economy and mediated the spread of a new ancestry associated with the Corded Ware Complex in Northern Europe.

RICHTER 2018

Jürgen Richter, *Altsteinzeit, Der Weg der frühen Menschen von Afrika bis in die Mitte Europas.* (Stuttgart 2018).

WYNN 2018

Thomas Wynn & John Gowlett, *The handaxe reconsidered.* [Evolutionary Anthropology](#) **27** (2018), 21–29.

The Acheulean handaxe is one of the longest-known and longest-surviving artifacts of the Palaeolithic and, despite its experimentally tested functionality, is often regarded as puzzling. It is unnecessary to invoke a unique-for-mammals genetic mechanism to explain the handaxe phenomenon. Instead, we propose that two nongenetic processes are sufficient. The first is a set of ergonomic design principles linked to the production of sturdy, hand-held cutting tools in the context of a knapped-stone technology that lacked hafting. The second is an esthetic preference for regular forms with gradual curves and pleasing proportions. Neither process is a cultural meme but, operating together in a cultural context, they can account for all of the supposedly puzzling timespace patterns presented by handaxes.

Keywords: Acheulean | ergonomic design | aesthetic | Homo erectus | Homo heidelbergensis

Bibel

BEN-AMI 2013

Doron Ben-Ami & Nili Wazana, *Enemy at the Gates, The Phenomenon of Fortifications in Israel Reexamined*. *Vetus Testamentum* **63** (2013), 368–382.

This article addresses the phenomenon of fortifications in Iron Age Israel and tries to portray the specific historical background behind their construction by integrating the archaeological data, the extra-biblical sources and the analysis of the biblical text. Of the two clear stratigraphical phases of fortifications noticed in several Iron Age cities, the latter is more massive and elaborated compared with its predecessor. We propose that the developed phase of fortifications in Israel was created under the Omrides, in a time of economic and political strength, as a response to the expansion policy of Aram Damascus. This analysis offers an explanation to the intriguing absence of any biblical reference to the Assyrians prior to Tiglath-pileser III, and casts a fresh look upon the current debate on the chronology of the Iron Age II. If the elaborate fortification systems were initiated during the first half of the ninth century, the initial phase of the urbanization process, which preceded this developed stage, must have begun in the days prior to the Omride dynasty, namely in the tenth century.

Keywords: elaborated fortifications | casemate walls | water systems | Low and High Chronology | Arameans | Omrides | Shalmaneser III | Tiglath-pileser III | west-Semitic inscriptions

PORZIG 2008

Peter Porzig, *Die Lade Jahwes im Alten Testament und in den Texten aus Qumran*. Dissertation, Universität Göttingen ([Göttingen 2008](#)).

Um so dringlicher wird deshalb die Frage, warum die Lade gerade für die Theologen der Zeit des Zweiten Tempels (etwa in der Priesterschrift und den Chronikbüchern) eine so große Bedeutung gewinnen konnte – eine Frage, die sich übrigens auch an die meisten bisherigen Hypothesen zur Geschichte der Lade stellen läßt. Zwei Aspekte scheinen hier leitend gewesen zu sein. Zum einen stellte sich, je mehr die Geschichte Israels zur Heilsgeschichte oder gar zur “Geschichte des Kultus” wurde, die Frage, wie man sich legitimen Kult in der Zeit vor dem Tempelbau vorstellen konnte. Einzig ein transportabler Gegenstand konnte einen zentralen Kult ohne zentralen Kultort gewährleisten. Einen solchen Gegenstand, der überdies von alters her mit der Gottheit verbunden war, stellte die Lade dar.

So konnte sie Gottes Anwesenheit bei seinem Volk bis hin zur Einnahme des gelobten Landes symbolisieren. Ans Ende dieser Wanderung gehörte dann konsequenterweise ihre Verbringung in den Tempel nach Jerusalem.

Wenn dies aber zutrifft, dann braucht man auch in der hier wahrscheinlich gemachten “Ladelosigkeit” des Ersten Tempels kein Überschießen der historischen Kritik oder dergleichen anzunehmen – denn die Fiktion der nachexilischen Theologen spiegelte sich natürlich auch in vorexilischer Zeit wider. Letztlich ordnet sich die in diesen späten Schichten entstandene Konzeption eines (Ersten) Tempels in die Reihe anderer Versuche ein, das Verhältnis von Gott und seiner Gegenwart in seinem Heiligtum zu denken und zu beschreiben, wie sie sich etwa im Tempeldienst der Chronik, bei Ezechiel (Kap. 40 – 48), aber auch in der Tempelrolle aus Qumran (11QT) finden.

Biologie

CORNWALLIS 2018

Charlie K. Cornwallis, *Cooperative breeding and the evolutionary coexistence of helper and nonhelper strategies*. [PNAS 115 \(2018\), 1684–1686](#).

The evolution of life on earth has been characterized by individual replicating units cooperating to form higher levels of complexity, such as the major transitions to the eukaryotic cell, obligate multicellularity, and eusocial societies (Fig. 1) (19). The importance of such transitions is becoming increasingly recognized and the conditions that facilitate this are now a thriving area of research (20). Nevertheless, in most of the situations where these transitions have occurred, there are coexisting nonsocial forms that are prospering under similar conditions. If natural selection is continually finding optimal solutions to ecological problems, then how do we explain this?

WANG 2018

Changcao Wang & Xin Lu, *Hamilton’s inclusive fitness maintains heritable altruism polymorphism through $rb = c$* . [PNAS 115 \(2018\), 1860–1864](#).

How can altruism evolve or be maintained in a selfish world? Hamilton’s rule shows that the former process will occur when $rb > c$ —the benefits to the recipients of an altruistic act b , weighted by the relatedness between the social partners r , exceed the costs to the altruists c —drives altruistic genotypes spreading against nonaltruistic ones. From this rule, we infer that altruistic genotypes will persist in a population by forming a stable heritable polymorphism with nonaltruistic genotypes if $rb = c$ makes inclusive fitness of the two morphs equal. We test this prediction using the data of 12 years of study on a cooperatively breeding bird, the Tibetan ground tit *Pseudopodoces humilis*, where helping is performed by males only and kin-directed. Individual variation in ever acting as a helper was heritable ($h^2 = 0.47$), and the resultant altruism polymorphism remained stable as indicated by low-level annual fluctuation of the percentage of helpers among all adult males (24–28%). Helpers’ indirect fitness gains from increased lifetime reproductive success of related breeders statistically fully compensated for their lifetime direct fitness losses, suggesting that $rb = c$ holds. While our work provides a fundamental support for Hamilton’s idea, it highlights the equivalent inclusive fitness returns to altruists and nonaltruists mediated by $rb = c$ as a theoretically and realistically important mechanism to maintain social polymorphism.

Keywords: cooperative breeding | Fisher's natural selection theorem | kin selection | lifetime fitness | quantitative genetics

Significance: Why should some individuals help others at the expense of their own fitness? Hamilton's elegant formula $rb > c$ resolves the major paradox in social evolution and has become a golden rule of sociobiology. However, $rb > c$ only tells part of the story, namely how altruistic genotypes expand. Theoretically, altruistic genotypes can persist by coexisting stably with nonaltruistic ones relying on $rb = c$, which may let both genotypes have equal inclusive fitness. We present evidence for this prediction using long-term data on a species of bird. Our work suggests that altruism should be understood beyond $rb > c$, given that $rb = c$ has the potential to explain widespread altruism polymorphisms in nature.

Klima

BÁRTA 2015

Miroslav Bárta, *Long Term or Short Term? Climate Change and the Demise of the Old Kingdom*. In: SUSANNE KERNER, RACHAEL J. DANN & PERNILLE BANGSGAARD (Hrsg.), *Climate and Ancient Societies*. (Copenhagen 2015), 177–195.

There has been a long-standing debate within Egyptology whether the decline of the Old Kingdom (dated to about 2,200 BCE) was due to internal and/or external factors or a combination of both of them. Equally important has been the question of the duration of this process. The present study shall make the case that the external environmental factors which contributed to the demise of the Old Kingdom state can be discerned to have happened much earlier than traditionally supposed. There is now sufficient evidence which demonstrates a continual adaptation of the ancient Egyptian society to a changing/worsening environment over a period which lasted almost two centuries. This climate change went hand in hand with several deep internal processes in the society that contributed significantly to the eventual demise of the Egyptian empire. The analysis will use icono-graphic material from Old Kingdom tombs, evidence from archaeological excavations, interpretation of unique finds of beetles in Abusir and a model describing the functioning of the administrative system of the Egyptian state. The emerging picture will show that the collapse of the Old Kingdom was a long process triggered by several internal crises in combination with a change in climate.

Kultur

BOYADZHIEV 2016

Kamen Boyadzhiev, *Warfare in the Chalcolithic of Bulgaria*. In: KRUM BACVAROV & RALF GLESER (Hrsg.), *Southeast Europe and Anatolia in prehistory, Essays in honor of Vassil Nikolov on his 65th anniversary*. Universitätsforschungen zur prähistorischen Archäologie 293 (Bonn 2016), 261–268.

This paper considers the available evidence on warfare in the Chalcolithic of Bulgaria (5th millennium BC) such as weapons, fortifications, skeletal traumas etc., on the background of the cultural and social transformations that took place during this period. The analysis shows that armed conflicts were probably among the principal factors involved in the processes that led to the formation of the large Late Chalcolithic cultural complexes in the Balkans and in the causes for their collapse.

HÄRKE 1997

Heinrich Härke, *Material Culture as Myth, Weapons in Anglo-Saxon Graves*. In: CLAUS KJELD JENSEN & KAREN HØILUND NIELSEN (Hrsg.), *Burial & Society, The Chronological and Social Analysis of Archaeological Burial Data*. (Aarhus 1997), 119–127.

What I am suggesting here is that a conquest myth may frequently be a consequence of a colonial situation in which the immigrants have achieved ascendancy, but feel under pressure because they are a minority, or because of a change in the political situation, or for similar reasons. One way to express the myth, and at the same time to re-affirm existing power structures, is in the display of weapons and the use of weapon symbolism. In this way, the immigrants would display and enhance their political and social status — a status which is tied to their ethnic (group-, community-) identity. In the Anglo-Saxon case, this symbolism took the form of depositing weapons in graves. On analogy with the written sources, there can be little doubt that it expressed a social ideology founded on a conquest myth. Both the underlying myth itself and its material-cultural equivalent served to express, legitimise and structure social relations between immigrant Anglo-Saxons and native Britons.

Weapon burial may have had this meaning over a wider range. There appear to be parallel cases of multi-ethnic populations where the weapon-burial rite was practised only by the dominant ethnic group, like the Alamannic weapon burials in southwestern Germany (Huber 1967; Sträub 1956) and possibly the pre-Roman Celtic weapon burials in northern Italy (pers. comm. O.-H. Frey, Marburg). On the other hand, it is unlikely that all traditions of burial with weapons can be explained in this way. The Anglo-Saxon weapon-burial rite itself provides an important reminder that the meaning of symbols can change (Harke 1992b): in the seventh century, weapon burial in England lost its ethnic connotations and changed into the mainly social symbol of an elite who, by this stage, had become ethnically mixed.

Mittelpaläolithikum

HOFFMANN 2018

Dirk L. Hoffmann, Diego E. Angelucci, Valentín Villaverde, Josefina Zapata & João Zilhão, *Symbolic use of marine shells and mineral pigments by Iberian Neandertals 115,000 years ago*. *Science Advances* 4 (2018), eaar5255. DOI:10.1126/sciadv.aar5255.

Cueva de los Aviones (southeast Spain) is a site of the Neandertal-associated Middle Paleolithic of Europe. It has yielded ochred and perforated marine shells, red and yellow colorants, and shell containers that feature residues of complex pigmentations mixtures. Similar finds from the Middle Stone Age of South Africa have been widely accepted as archaeological proxies for symbolic behavior. U-series dating of the flowstone capping the Cueva de los Aviones deposit shows that the symbolic finds made therein are 115,000 to 120,000 years old and predate the earliest known comparable evidence associated with modern humans by 20,000 to 40,000 years. Given our findings, it is possible that the roots of symbolic material culture may be found among the common ancestor of Neandertals and modern humans, more than half-a-million years ago.

Story or Book

GOLDIN 2018

Ian Goldin, *Testing times for optimism*. [nature 554](#) (2018), 420–422.

Ian Goldin questions Steven Pinker’s faith in Enlightenment values in our complex era.

Enlightenment Now: The Case for Science, Reason, Humanism, and Progress. Steven Pinker. Viking: 2018.

Many of the breakthroughs that Pinker attributes to the Enlightenment actually pre-date it. The Renaissance was a period of even more dramatic progress in science and the humanities. Before that were extraordinarily innovative epochs in Asia and other regions, such as China’s Tang dynasty (ad 618–907) and the Islamic Golden Age (750–1260).

Both eras show that science and evidencebased thinking do not necessarily triumph over irrationality and ideology. Shared social norms and ethics are the framework that allows reason to prevail. Moreover, progress in science and society is a tapestry that cannot be unpicked through simple periodization. That said, comparing historical eras can be instructive. Although history does not repeat itself, it may rhyme; it can offer insights into predicaments and solutions, as I have found helpful, for instance, in conceptualizing the future of work. Many of the Enlightenment’s philosophical, social and scientific advances offer lessons for our reason-starved times, as Pinker ably argues; but context is key.

Pinker highlights the importance of ideas in human advances, but claims that “intellectuals hate progress” — a surprising generalization in a case for evidence and reason. And herein lies both the strength and weakness of this book. It provides copious reasons for optimism. It claims to be a scientific, evidencebased account; but that is undermined by its scant attention to the mounting evidence on new risks.

Enlightenment Now is not a balanced account of the present or future. But for the many overwhelmed by gloom, it is a welcome antidote.