

References

Afrika

KÖHLER 2018

E. Christina Köhler, *Vor den Pyramiden, Die ägyptische Vor- und Frühzeit.* (Darmstadt 2018).

ZERBONI 2018

Andrea Zerboni, Sandro Salvatori, Pietro Vignola, Abd el Rahman Ali Mohammed & Donatella Usai, *The long-distance exchange of amazonite and increasing social complexity in the Sudanese Neolithic.* [Antiquity 92 \(2018\), 1195–1209.](#)

[Antiquity092-1195-Supplement.pdf](#)

The presence of exotic materials in funerary contexts in the Sudanese Nile Valley suggests increasing social complexity during the fifth and sixth millennia BC. Amazonite, both in artefact and raw material form, is frequently recovered from Neolithic Sudanese sites, yet its provenance remains unknown. Geochemical analyses of North and East African raw amazonite outcrops and artefacts found at the Neolithic cemetery of R12 in the Sudanese Nile Valley reveals southern Ethiopia as the source of the R12 amazonite. This research, along with data on different exotic materials from contemporaneous Sudanese cemeteries, suggests a previously unknown, long-distance North African exchange network and confirms the emergence of local craft specialisation as part of larger-scale developing social complexity.

Keywords: Sudan | Neolithic | amazonite | social complexity | exchange

Altpaläolithikum

DE LUMLEY 2018

Henry de Lumley et al., *The first technical sequences in human evolution from East Gona, Afar region, Ethiopia.* [Antiquity 92 \(2018\), 1151–1164.](#)

[Antiquity092-1151-Supplement.pdf](#)

Henry de Lumley, Deborah Barsky, Marie H el ene Moncel, Eudald Carbonell, Dominique Cauche, Vincenzo Celiberti, Olivier Notter, David Pleurdeau, Mi-Young Hong Michael J. Rogers & Sileshi Semaw

Gona in the Afar region of Ethiopia has yielded the earliest Oldowan stone tools in the world. Artefacts from the East Gona (EG) 10 site date back 2.6 million years. Analysis of the lithic assemblage from EG 10 reveals the earliest-known evidence for refitting and conjoining stone artefacts. This new information supplements data from other Oldowan sites in East Africa, and provides an important insight into the technological capacities and evolutionary development of hominins during this period.

Keywords: Ethiopia | East Gona | Oldowan | knapping | refitting

TERBERGER 2018

THOMAS TERBERGER, UTZ B OHNER, FELIX HILLGRUBER & ANDREAS KOTULA (Hrsg.), *300.000 Jahre Spitzen-*

technik, *Der altsteinzeitliche Fundplatz Schöningen und die ältesten Speere der Menschheit*. (Darmstadt 2018).

Amerika

HAYEUR SMITH 2018

Michele Hayeur Smith, Kevin P. Smith & Gørill Nilsen, *Dorset, Norse, or Thule? Technological transfers, marine mammal contamination, and AMS dating of spun yarn and textiles from the Eastern Canadian Arctic*. [Journal of Archaeological Science 96 \(2018\), 162–174](#).

Yarn and textiles recovered from prehistoric Dorset and Thule culture sites in the Eastern Canadian Arctic have raised questions about the extent and timing of indigenous and Norse interaction in the New World, whether the yarn represents technological transfers between Greenland's Norse settlers and the Dorset, or whether these Indigenous Arctic groups had independent ber technologies before contact with Europeans. However, the extensive use of marine mammals in northern cultural contexts, and the penetration of oils from these animals' tissues into datable terrestrial materials, has posed general problems for reliably dating sites in the Arctic and has raised questions specifically about previous efforts to date these ber objects. In this paper, we use a recently developed protocol for removing marine mammal organic contaminants entirely from radiocarbon samples, making AMS dating possible and reliable for Arctic research. This study uses those protocols to directly date a suite of woven and spun animal ber artifacts from ve Dorset and Thule archaeological sites in the eastern Canadian Arctic. Directly dating these artifacts with marine mammal oils removed helps to answer questions about Norse contact with Dorset and Thule communities, sheds new light on the topic of indigenous ber technologies in the North, and raises new questions about European contacts with the people of the North American Arctic prior to sustained efforts at colonization after the 18th century.

Keywords: AMS dating | Marine mammal oil contamination | Pre-treatment methods for AMS dating | Spun yarn | Textiles | Canadian eastern arctic | Norse Greenland

Archäologie

GUILAINE 2018

Jean Guilaine, *Siret's Smile*. [Antiquity 92 \(2018\), 1247–1259](#).

Recent palaeogenomic data have expanded the debate concerning the direction of cultural transmission during the European Chalcolithic by suggesting the western movement of people from the Eurasian Steppe. Heyd (2017) considers a simultaneous spread of material culture as supportive of these model. The author addresses Heyd's suggestions in the light of new archaeological data from the southern Iberian Peninsula. These data strongly suggest both Eastern Mediterranean and endogenous influences and innovation in the spread of culture across Europe during the third millennium BC.

Keywords: Iberian Peninsula | Chalcolithic | Bell Beaker Culture | statuemenhirs

SHAI 2018

ITZHAQ SHAI, JEFFREY R. CHADWICK, LOUISE HITCHCOCK, AMIT DAGAN, CHRIS MCKINNY & JOE UZIEL

(Hrsg.), *Tell it in Gath: Studies in the History and Archaeology of Israel, Essays in Honor of A. M. Maeir on the Occasion of his Sixtieth Birthday*. Ägypten und Altes Testament 90 (Münster 2018).

Bibel

BOARETTO 2018

Elisabetta Boaretto, Yotam Asscher, Louise A. Hitchcock, Gunnar Lehmann, Aren M. Maeir & Steve Weiner, *The Chronology of the Late Bronze (LB) – Iron Age (IA) Transition in the Southern Levant, A Response to Finkelstein’s Critique*. *Radiocarbon* (2018), preprint, 1–11. DOI:10.1017/RDC.2018.57.

The question under discussion is whether the dates of the Late Bronze (LBIIB)-LBIII (Iron IA) transitions in three sites in the southern Levant, namely Megiddo, Tell es-Sa./Gath and Qubur el-Walaydah occur at the same time, as has been proposed by Israel Finkelstein in his article in 2016 in *Egypt and Levant*. Here we respond to Finkelstein’s comments. We add some new data, clarify the issues that were raised, and conclude that the Late Bronze (LBIIB)-LBIII (Iron IA) transitions occurred at different times in northern and southern Israel.

Keywords: microarchaeology | radiocarbon context | southern Levant | transition dating.

CLINES 1995

David J. A. Clines, *The Ideology of Writers and Readers of the Hebrew Bible*. In: DAVID J. A. CLINES (Hrsg.), *Interested Parties, The Ideology of Writers and Readers of the Hebrew Bible*. *Journal for the Study of the Old Testament Supplement Series* 205 (Sheffield 1995), 9–25.

There is yet a further sense I have in mind when I use the phrase ‘interested parties’ as the title of this book. I am thinking of the tendency to concealment (deliberate or unconscious) by ideologues of the motivation or rationale (in part or whole) for what they are saying. On the surface, their texts lay claim to coherence and rationality, and they give the appearance of sincerity and either moral fervour or objectivity. But beneath the surface there are issues of power, of self-identity and security, of group solidarity, of fear and desire, of need and greed, that have also played a role in the production of the text, sometimes a leading role. These are the kinds of interests that writers and readers of the Hebrew Bible are serving. We all do this kind of concealment of our motivations, and perhaps there is nothing wrong in it. Perhaps you do not even want to know what unexpressed reasons I have for writing this book, and perhaps I could not tell you the most of them even if I wanted to. Perhaps you do not know for what hidden reasons you are reading it. But texts and readers are fair game for ideological critics, and especially when texts are used by their readers in the service of power and of social control—which is often how the Bible is used—the temptation on the part of those who feel they are being controlled to search out what has been concealed becomes overwhelming. So this is not an innocent book, any more than the texts and the readers it discusses are innocent of vested interests. It does not lay claim to a calm neutrality or a distanced objectivity—not as a whole, that is. There is, I should hope, a good deal of scholarly rigour within it, but I would be deceiving myself if I thought that I (or any of us) were capable of disinterested scholarship. This book too is an ideological production. *Caveat lector*.

CLINES 1995

David J. A. Clines, *Why is There a Song of Songs and What Does It Do to You If You Read It?* In: DAVID J. A. CLINES (Hrsg.), *Interested Parties, The Ideology of Writers and Readers of the Hebrew Bible*. Journal for the Study of the Old Testament Supplement Series 205 (Sheffield 1995), 94–121.

So the male author is not incapable of constructing a vital woman, but he does not choose to do so, on the whole. The woman he creates remains caught in her domestic setting, interminably waiting for her lover to arrive, seeking him but finding him not, calling and gaining no answer (3.1; 5.6). He has the transport (3.6-10), and he has the freedom. She longs for him (1.2; 2.6), but he is mostly disturbed by her (4.9; 7.5). Above all, he insists on constructing her; the keynote is 4.1: 'Behold, you are beautiful, my love; behold, you are beautiful'. That repeated 'behold' (hnk) says it all: she is to behold herself, herself as seen by him. She is to have no vision of herself; he will impose that upon her. And he will be content with nothing less than her acceptance of the subject position he is offering. She is to see herself as he sees her; otherwise she has no identity.

This is a dangerous text, not a gross one. A more blatantly sexist text would do less damage than one that beguiles. On the other hand, once you see its programme, perhaps you sharpen up your reflexes. 'What does it do to you?' depends a lot on how you have already constructed yourself.⁵⁸

DIJKSTRA 1995

Meindert Dijkstra, *Is Balaam Also among the Prophets?* *Journal of Biblical Literature* 114 (1995), 43–64.

In this essay we came to the remarkable conclusion that the Balaam of the wall text is closer to the biography of OT prophets in some ways than is the Balaam depicted in Numbers 22-24! Perhaps such a positive assessment is exaggerated. It seems almost a positive answer to the question in the title: Is Balaam also among the prophets? However, the danger always lurks of taking a newly found text as evidence that the Bible is correct after all. It would not be fair to the authors of the scriptures or to the authors of the *Sefer Balaam* to rehabilitate the biblical Balaam on the grounds of the wall text and to bring him into the goodly fellowship of the prophets. Despite all the agreements in conception and action, differences remain between the religious beliefs of the inhabitants of the Valley of Succoth and those who transmitted the stories of Elijah and Elisha. In view of their beliefs, these worshipers of El and his family should be classed as Canaanite or, if Israelite, at the least Elistic Israelite, different from Yahwistic Israelite. That is no negative assessment as such. As is the case with the Kuntillet el-Ajrud texts, the character of this inscription can no longer be explained in terms of a simplified model: Israelite versus Canaanite religion and culture. It is hard to differentiate between Israelite and Canaanite culture in the Iron I period. Some local Israelite cults were in the Iron I and early Iron II period (eighth century BCE) still very close to the West Semitic polytheistic religions of the Levant. The Balaam text once again indicates how much Israelite belief is dependent on West Semitic religious beliefs and on the beliefs of the ancient Near East, in which environment Israel's belief originated and grew to maturity.

FRANKLIN 2018

Norma Franklin, *The Kushite Connection, The Destruction of Lachish and the Salvation of Jerusalem*. In: ITZHAQ SHAI, JEFFREY R. CHADWICK, LOUISE HITCHCOCK, AMIT DAGAN, CHRIS

MCKINNY & JOE UZIEL (Hrsg.), *Tell it in Gath: Studies in the History and Archaeology of Israel, Essays in Honor of A. M. Maeir on the Occasion of his Sixtieth Birthday*. Ägypten und Altes Testament 90 (Münster 2018), 680–695.

Sennacherib's third campaign, the only one to the west, consisted of three phases: the advance along the Phoenician coast, the events in Philistia, and the campaign to Judah (Na'aman 1979: 64). In total, these events stretched over a 400 km area from north to south, dealt with 70 polities, and resulted in the deportation of tens of thousands of people. At least 13 walled cities had their rebellious kings replaced, the cities of Eltekeh and Timnah were plundered, the nobles of Ekron were punished, up to 46 Judean cities destroyed, and possibly up to a million people were affected (Richardson 2014: 457). Yet, Jerusalem and Hezekiah survived, comparatively untouched due to Judah's forgotten ally, the 25th Kushite Dynasty, who ruled over both Upper and Lower Egypt.

HITCHCOCK 2018

Louise A. Hitchcock, 'All the Cherethites, and all the Pelethites, and all the Gittites' (2 Samuel 2:15-18), *An Up-To-Date Account of the Minoan Connection with the Philistines*. In: ITZHAQ SHAI, JEFFREY R. CHADWICK, LOUISE HITCHCOCK, AMIT DAGAN, CHRIS MCKINNY & JOE UZIEL (Hrsg.), *Tell it in Gath: Studies in the History and Archaeology of Israel, Essays in Honor of A. M. Maeir on the Occasion of his Sixtieth Birthday*. Ägypten und Altes Testament 90 (Münster 2018), 304–321.

The co-occurrence of the ethnic designations Cherethite and Pelethite and the association of the Philistines with Caphtor in the Old Testament point to a specifically Cretan origin or affiliation for at least some of the Philistines in literary tradition. This identification, although bolstered by the discovery that the Philistines produced their own version of Mycenaean IIC pottery, has rightly come under criticism from those reluctant to simplistically associate pots with peoples. However, additional categories of archaeological evidence indicating an Aegean origin for the Philistines are well-rehearsed and include the reel-style of loom weights, drinking habits, consumption of pork, Aegean-style cooking pots, use of hearths and bathtubs, temple architecture, and megaron-style buildings. Yet, in contrast to the strong identification of the Philistines with Crete in the literary tradition, these Aegean characteristics of Philistine culture point to Mycenaean Greece.

Much new information has come to light since an earlier version of this paper was presented at Cretological Congress in 2011. However, particular reference to the author's excavations at Tell es-Safi/Gath and study of other Philistine material in Israel. Among the categories of evidence examined in this paper are architectural features, particularly hearths, but also spatial syntax, plaster, and tool use; the spatial manipulation of artifacts such as the practice of curating animal head cups and seal use, ritual action, and recently discovered inscriptional evidence. It is argued that key features of Minoan culture survived in Philistine culture, embedded among other cultural practices that can be associated with the Mycenaean, Cypriots, and Canaanites, and that they form an important record of the Cretan and Minoan contribution to human civilization.

RÖSEL 2000

Martin Rösel, *Israels Psalmen in Ägypten? Papyrus Amherst 63 und die Psalmen XX und LXXV*. *Vetus Testamentum* 50 (2000), 81–99.

Der in Ägypten gefundene Papyrus Amherst 63 enthält mehrere Einzeltexte unterschiedlicher Gattungen und Herkunft. Da sie zwar in aramaischer Sprache, aber in demotischer Schrift geschrieben wurden, gibt es bis heute keine allgemein akzeptierte Transkription oder Übersetzung. Der Aufsatz untersucht die in den Kolumnen 12 und 13 erhaltenen Texte, die aufgrund des auffälligen Gottesnamengebrauchs und inhaltlicher Parallelen aus israelitischen Traditionen stammen müssen. Über die bekannte Parallele von Kol. 12,11ff. zu Ps. xx hinaus wird argumentiert, daß sich in Kol. 13,5–9 Ps. lxxv 8–10 spiegelt. Auch zu Kol. 13,11ff. lassen sich biblische Parallelen (Ex. xv; Ps. xix) finden. Die Texte gehen offenbar auf gemeinsame Vorstufen zurück, die am Reichsheiligtum in Bethel tradiert wurden.

SANDULACHE 2016

Cristina Sandulache, *Yahweh's Combat with the Sea, Echoes of a Ugaritic Chaoskampf Myth?* (unpublished 2016).

The present study clearly shows that, although several biblical poetic passages make reference to a combat between God and a number of monstrous beings, there is no reason whatsoever to consider that the referent should be looked for in the ANE extra-biblical literature in general, or in the Ugaritic literature in special.

The referent of the biblical passages in which God is presented as fighting the Sea is not Ba'al's fight with Yam, but God's conflict with the Serpent in Genesis 3. In spite of the occasional similarities in imagery or phraseology between the Combat stories of the Ugaritic Ba'al Cycle and of the Hebrew Bible, the differences between the two narratives are so substantial that they far outweigh the similarities.

Moreover, the paper draws attention to the fact that Gunkel's attempt to impose the Chaoskampf pattern found in the Babylonian poem *Enuma eliš* to all the ANE literature, including the Ugaritic Ba'al Cycle and the Hebrew Bible is completely invalid. Neither of the latter ones is a Chaoskampf myth.

Although they both contain a Combat story, none of them presents the Creation act as a consequence of the killing and division of a chaos monster. Actually, both of them have their own specific narratives, which differ both between themselves and in relation to the narrative of the Babylonian poem *Enuma eliš*.

Does Yahweh's Combat with the Sea echo a Ugaritic Chaoskampf Myth? The answer of the present study is definitely "No". Yahweh's Combat with the Sea proves to be a cosmic combat with a monster with many names – "Sea" being just one of them – who proves to be no other than Satan himself, the moral corrupter of the created world, the monster of whom the OT prophetic literature says he will one day be "punished" and "slayed" (Is. 27:1).

TILLY 2011

Michael Tilly & Wolfgang Zwickel, *Religionsgeschichte Israels, Von der Vorzeit bis zu den Anfängen des Christentums*. (Darmstadt 2015).

Grabung

KRAUSSE 2018

Dirk Krausse & Nicole Ebinger-Rist, *Das Geheimnis der Keltenfürstin, Der Sensationsfund von der Heuneburg*. (Darmstadt 2018).

Islam

ZIRKER 2003

Der Koran, Übersetzt und eingeleitet von Hans Zirker. (Darmstadt 2018).

Jungpaläolithikum

BARTON 2018

Huw Barton, Giuseppina Mutri, Evan Hill, Lucy Farr & Graeme Barker, *Use of grass seed resources c. 31 ka by modern humans at the Haua Fteah cave, northeast Libya.* [Journal of Archaeological Science](#) **99** (2018), 99–111.

The recovery of a seed grinding stone from human occupation layers dating to c.31 ka in the Haua Fteah cave on the coast of the Gebel Akhdar massif in northeast Libya sheds new light on the subsistence practices of modern humans in North Africa. An integrated study of usewear and organic residue analysis confirms the use of the tool for seed grinding. Residue analysis recovered a total of 15 starch granules that could be reliably identified as belonging to wild cereals, ten of which are identified as A-type granules of *Aegilops* sp. (goat grass). The results of this study show that modern humans had the capacity to identify large-seeded grasses as a potential food source, perhaps targeted during periods of resource stress, and were capable of adapting pounding and grinding technologies to solve the unique problems of seed processing to render an edible food from grasses. The findings from this research show that broad-spectrum diets involving the exploitation of wild cereals were emerging during the Late Stone Age in North Africa.

Klima

BUIZERT 2018

Christo Buizert et al., *Abrupt ice-age shifts in southern westerly winds and Antarctic climate forced from the north.* [nature](#) **563** (2018), 681–685.

n563-0681-Supplement.xlsx

Christo Buizert, Michael Sigl, Mirko Severi, Bradley R. Markle, Justin J. Wettstein, Joseph R. McConnell, Joel B. Pedro, Harald Sodemann, Kumiko Goto-Azuma, Kenji Kawamura, Shuji Fujita, Hideaki Motoyama, Motohiro Hirabayashi, Ryu Uemura, Barbara Stenni, Frédéric Parrenin, Feng He, T. J. Fudge & Eric J. Steig

The mid-latitude westerly winds of the Southern Hemisphere play a central role in the global climate system via Southern Ocean upwelling¹, carbon exchange with the deep ocean², Agulhas leakage (transport of Indian Ocean waters into the Atlantic)³ and possibly Antarctic ice-sheet stability⁴. Meridional shifts of the Southern Hemisphere westerly winds have been hypothesized to occur^{5,6} in parallel with the well-documented shifts of the intertropical convergence zone⁷ in response to Dansgaard-Oeschger (DO) events—abrupt North Atlantic climate change events of the last ice age. Shifting moisture pathways to West Antarctica⁸ are consistent with this view but may represent a Pacific teleconnection pattern forced from the tropics⁹. The full response of the Southern Hemisphere atmospheric circulation to the DO cycle and its impact on Antarctic temperature remain unclear¹⁰. Here

we use five ice cores synchronized via volcanic markers to show that the Antarctic temperature response to the DO cycle can be understood as the superposition of two modes: a spatially homogeneous oceanic ‘bipolar seesaw’ mode that lags behind Northern Hemisphere climate by about 200 years, and a spatially heterogeneous atmospheric mode that is synchronous with abrupt events in the Northern Hemisphere. Temperature anomalies of the atmospheric mode are similar to those associated with present-day Southern Annular Mode variability, rather than the Pacific–South American pattern. Moreover, deuterium-excess records suggest a zonally coherent migration of the Southern Hemisphere westerly winds over all ocean basins in phase with Northern Hemisphere climate. Our work provides a simple conceptual framework for understanding circum-Antarctic temperature variations forced by abrupt Northern Hemisphere climate change. We provide observational evidence of abrupt shifts in the Southern Hemisphere westerly winds, which have previously documented 1–3 ramifications for global ocean circulation and atmospheric carbon dioxide. These coupled changes highlight the necessity of a global, rather than a purely North Atlantic, perspective on the DO cycle.

Kultur

DECORTE 2018

Roeland P.-J. E. Decorte, *The First ‘European’ Writing, Redefining the Archanes Script*. [Oxford Journal of Archaeology 37 \(2018\), 341–372](#).

This paper investigates a series of glyptic inscriptions attested on Crete at the end of the third and beginning of the second millennium BC, collectively referred to as the ‘Archanes Script’. These minute engravings are considered to represent the earliest appearance of writing west of Egypt, and the first ‘true’ writing in the Aegean. Though mentioned in passing in almost every study of Bronze Age Aegean writing, few scholars have ever offered a definition of what exactly they consider the ‘Archanes Script’ to be. No work or scholarly consensus exists delineating which signs constitute its signary, or even which documents comprise its corpus. Study of the seals as objects in their own right, examining script signs alongside associated iconography, material qualities and form, has been rare. This paper offers the first complete overview and redefinition of the Archanes Script since its discovery in the 1960s and initial definition by Paul Yule in 1980.

Mathematik

HILBE 2018

Christian Hilbe, Laura Schmid, Josef Tkadlec, Krishnendu Chatterjee & Martin A. Nowak, *Indirect reciprocity with private, noisy, and incomplete information*. [PNAS 115 \(2018\), 12241–12246](#).

[pnas115-12241-Supplement.pdf](#)

Indirect reciprocity is a mechanism for cooperation based on shared moral systems and individual reputations. It assumes that members of a community routinely observe and assess each other and that they use this information to decide who is good or bad, and who deserves cooperation. When information is transmitted publicly, such that all community members agree on each other’s reputation, previous research has highlighted eight crucial moral systems. These “leading-eight” strategies can maintain cooperation and resist invasion by defectors. However, in real populations individuals often hold their own private views of others. Once two individuals disagree about their opinion of some third party,

they may also see its subsequent actions in a different light. Their opinions may further diverge over time. Herein, we explore indirect reciprocity when information transmission is private and noisy. We find that in the presence of perception errors, most leading-eight strategies cease to be stable. Even if a leadingeight strategy evolves, cooperation rates may drop considerably when errors are common. Our research Highlights the role of reliable information and synchronized reputations to maintain stable moral systems.

Keywords: cooperation | indirect reciprocity | social norms | evolutionary game theory

Significance: Indirect reciprocity explores how humans act when their reputation is at stake, and which social norms they use to assess the actions of others. A crucial question in indirect reciprocity is which social norms can maintain stable cooperation in a society. Past research has highlighted eight such norms, called “leading-eight” strategies. This past research, however, is based on the assumption that all relevant information about other population members is publicly available and that everyone agrees on who is good or bad. Instead, here we explore the reputation dynamics when information is private and noisy. We show that under these conditions, most leading-eight strategies fail to evolve. Those leadingeight strategies that do evolve are unable to sustain full cooperation.

ROBERTS 2018

Michael F. Roberts & Stephen E. Bricher, *Modeling the disappearance of the Neanderthals using principles of population dynamics and ecology*. [Journal of Archaeological Science](#) **100** (2018), 16–31.

We provide four simulations of our model that achieve NEA extinction in 5,000 years after the arrival of AMH, consistent with the archaeological evidence. Each of the simulations is based on a different hypothesis for NEA extinction, illustrating that one cannot assign causality to a particular hypothesis simply because it produces a known outcome. While runs of our simulations suggest that either of the two hypotheses is a theoretically reasonable explanation for NEA extinction, without contextual archaeological evidence it is difficult to decide whether either actually caused NEA extinction. We hope these observations provide some guidance for further archaeological exploration.

Current hypotheses regarding the disappearance of Neanderthals (NEA) in Europe fall into two main categories: climate change, and competition. Here we review current research and existing mathematical models that deal with this question, and we propose an approach that incorporates and permits the investigation of the current hypotheses. We have developed a set of differential equations that model population dynamics of anatomically modern humans (AMH) and NEA, their ecological relations to prey species, and their mutual interactions. The model allows investigators to explore each of the two main categories or combinations of both, as well as various forms of competition and/or interference within the context of competition.

The model is designed to include a wide variety of hypotheses and associated archaeological evidence, not focused on a particular hypothesis regarding NEA extinction. It therefore provides investigators with a model to impartially examine various hypotheses (individually or in combination) regarding climatic effects, differential resource use, differences in birth/death rates and carrying capacities, competition, interference, disease, interbreeding, and cultural distinctions that might have led to the extinction of NEA. Moreover, the model accommodates the design of scenarios concerning—for example—population growth, hunting, competitive interactions, cultural differences, and climatic influences to investigate which concepts best explain the rapid disappearance of NEA.

In addition, our model is a modification of the classical Lotka-Volterra model for a wide range of any two populations competing for a common resource. Specifically, our model explicitly includes the resource as an additional variable, a dependence of important population parameters on resource, as well as accommodates treating one of the populations as invasive.

Keywords: Population modeling | Competition | Climatic influence | Neanderthals | Anatomically modern humans

Methoden

PÉREZ-PÉREZ 2018

Alejandro Pérez-Pérez, Laura M. Martínez, Marta Gómez, Ferran Estebaranz-Sánchez & Alejandro Romero, *Correlations among dietary proxies in African fossil hominins, Dental buccal microwear, occlusal textures and ^{13}C stable isotope*. [Journal of Archaeological Science: Reports **22** \(2018\), 384–391](#).

Depending on the analyzed tooth, $\delta^{13}\text{C}$ dietary inferences may reflect food consumption variability in a range of ages between 1 and 8 years. Dietary habits within this age range do not remain constant. Weaning represents a significant shift towards an adult diet and it likely occurs within this age interval. Differences in $\delta^{13}\text{C}$ between the first and second molars might reflect this dietary transition, although it is unknown if the diet of juvenile hominins would be identical to that of the adults. In addition, the occlusal microwear texture depends on the so-called “last supper effect” (Grine, 1986). High turnover rates of occlusal microwear features might cause the overall modification of the patterns within a few days or weeks (Teaford and Tylanda, 1991). This proxy would likely reflect the dietary habits of the adult individuals (provided infant are not included in the analysis), but ecological factors such as seasonality or sporadic food availability might show up in the occlusal microwear results. This may be interesting for analyzing the incidence of fallback foods upon the preferred diet of the analyzed taxa, since despite seldom consumed these foods might have a quick reflection on the occlusal microwear patterns.

Dietary proxies for inferring diet composition of African hominin species have been widely used. However, Results derived from buccal microwear patterns, occlusal textural data and carbon stable isotope are not always concordant. We have analyzed the correlations between the different variables measured with each methodological approach at two distinct levels. We first, computed paired correlation among fossil specimens for whom dietary data was available and then analyzed the trends in dietary proxy variables among the fossil hominin species considered. The results show some significant correlations between variables. However, some inconsistencies among the different methodologies are evident, especially between buccal and occlusal microwear proxies and between the microwear patterns and $\delta^{13}\text{C}$ signals. Differences in age ranges and life span for applying the different techniques might explain the inconsistencies observed. Further data on dental microwear patterns are required for further a more informative investigation on the associations between the dietary proxies.

Keywords: Buccal microwear | Occlusal microwear texture | ^{13}C stable isotope | African hominins | Diet

PRENTISS 2018

Anna Marie Prentiss, Thomas A. Foor, Ashley Hampton, Ethan Ryan & Matthew J. Walsh, *The Evolution of Material Wealth-Based In-*

equality, *The Record of Housepit 54, Bridge River, British Columbia. American Antiquity* **83** (2018), 598–618.

AmAnt83-598-Supplement.zip

The evolution of material wealth-based inequality is an important topic in archaeological research. While a number of explanatory models have been proposed, rarely have they been adequately tested. A significant challenge to testing such models concerns our ability to define distinct, temporally short-term, residential occupations in the archaeological record. Sites often lack evidence for temporally persistent inequality, or, when present, the palimpsest nature of the deposits often make it difficult to define the processes of change on scales that are fine enough to evaluate nuanced model predictions. In this article, we use the detailed record of Housepit 54 from the Bridge River site, interior British Columbia, to evaluate several alternative hypotheses regarding the evolution of persistent material wealth-based inequality. Results of our analyses indicate that inequality appeared abruptly coincident with a decline in intra-house cooperation associated with population packing and the initiation of periodic subsistence stress. We conclude that persistent inequality in this context was a byproduct of altered social networks linked to a Malthusian transition and ceiling.

Mittelalter

HOWARD 2017

Douglas A. Howard, *Das Osmanische Reich 1300–1924*. (Darmstadt 2018). Original: A History of the Ottoman Empire.

Mittelpaläolithikum

BEIER 2018

Judith Beier, Nils Anthes, Joachim Wahl & Katerina Harvati, *Similar cranial trauma prevalence among Neanderthals and Upper Palaeolithic modern humans. nature* **563** (2018), 686–690.

n563-0686-Supplement.pdf

Neanderthals are commonly depicted as leading dangerous lives and permanently struggling for survival. This view largely relies on the high incidences of trauma that have been reported^{1,2} and have variously been attributed to violent social behaviour^{3,4}, highly mobile hunter-gatherer lifestyles² or attacks by carnivores⁵. The described Neanderthal pattern of predominantly cranial injuries is further thought to reflect violent encounters with large prey mammals, resulting from the use of close-range hunting weapons¹. These interpretations directly shape our understanding of Neanderthal lifestyles, health and hunting abilities, yet mainly rest on descriptive, case-based evidence. Quantitative, population-level studies of traumatic injuries are rare. Here we reassess the hypothesis of higher cranial trauma prevalence among Neanderthals using a population-level approach—accounting for preservation bias and other contextual data—and an exhaustive fossil database. We show that Neanderthals and early Upper Palaeolithic anatomically modern humans exhibit similar overall incidences of cranial trauma, which are higher for males in both taxa, consistent with patterns shown by later populations of modern humans. Beyond these similarities, we observed species-specific, age-related variation in trauma prevalence, suggesting that there were differences in the timing of injuries during life or that there was a differential mortality risk of

trauma survivors in the two groups. Finally, our Results highlight the importance of preservation bias in studies of trauma prevalence.

MIRAZÓN LAHR 2018

Marta Mirazón Lahr, *The not-so-dangerous lives of Neanderthals*. *nature* **563** (2018), 634–636.

Have Neanderthals gained an unfair reputation for having led highly violent lives? A comparison of skulls of Neanderthals and prehistoric humans in Eurasia reveals no evidence of higher levels of trauma in these hominins.

SMITH 2018

Tanya M. Smith et al., *Wintertime stress, nursing, and lead exposure in Neanderthal children*. *Science Advances* **4** (2018), eaau9483. DOI:10.1126/sciadv.aau9483.

SciAdv04-eaau9483-Supplement.pdf

Tanya M. Smith, Christine Austin, Daniel R. Green, Renaud Joannes-Boyau, Shara Bailey, Dani Dumitriu, Stewart Fallon, Rainer Grün, Hannah F. James, Marie-Hélène Moncel, Ian S. Williams, Rachel Wood & Manish Arora

Scholars endeavor to understand the relationship between human evolution and climate change. This is particularly germane for Neanderthals, who survived extreme Eurasian environmental variation and glaciations, mysteriously going extinct during a cool interglacial stage. Here, we integrate weekly records of climate, tooth growth, and metal exposure in two Neanderthals and one modern human from southeastern France. The Neanderthals inhabited cooler and more seasonal periods than the modern human, evincing childhood developmental stress during wintertime. In one instance, this stress may have included skeletal mobilization of elemental stores and weight loss; this individual was born in the spring and appears to have weaned 2.5 years later. Both Neanderthals were exposed to lead at least twice during the deep winter and/or early spring. This multidisciplinary approach elucidates direct relationships between ancient environments and hominin paleobiology.

Neolithikum

SCERRI 2018

Eleanor M. L. Scerri et al., *Neolithic pastoralism in marginal environments during the Holocene Humid Period, northern Saudi Arabia*. *Antiquity* **92** (2018), 1180–1194.

Antiquity092-1180-Supplement1.pdf, Antiquity092-1180-Supplement2.jpg

Eleanor M. L. Scerri, Maria Guagnin, Huw S. Groucutt, Simon J. Armitage, Luke E. Parker, Nick Drake, Julien Louys, Paul S. Breeze, Muhammad Zahir, Abdullah Alsharekh & Michael D. Petraglia

The origins of agriculture in South-west Asia is a topic of continued archaeological debate. Of particular interest is how agricultural populations and practices spread inter-regionally. Was the Arabian Neolithic, for example, spread through the movement of pastoral groups, or did ideas perhaps develop independently? Here, the authors report on recent excavations at Alshabah, one of the first Neolithic sites discovered in Northern Arabia. The site's material culture, environmental context and chronology provide evidence suggesting that well-adapted, seasonally mobile, pastoralist groups played a key role in the Neolithisation of the Arabian Peninsula.

Keywords: Arabian Peninsula | Neolithic | Holocene Wet Phase | grindstone tools
| lithic technology

Physik

BIALY 2018

Shmuel Bialy & Abraham Loeb, *Could Solar Radiation Pressure Explain ‘Oumuamua’s Peculiar Acceleration?* [The Astrophysical Journal Letters 868 \(2018\), L1.](#)

‘Oumuamua (1I/2017 U1) is the first object of interstellar origin observed in the solar system. Recently, Micheli et al. reported that ‘Oumuamua showed deviations from a Keplerian orbit at a high statistical significance. The observed trajectory is best explained by an excess radial acceleration $a_r \approx r^{-2}$, where r is the distance of ‘Oumuamua from the Sun. Such an acceleration is naturally expected for comets, driven by the evaporating material. However, recent observational and theoretical studies imply that ‘Oumuamua is not an active comet. We explore the possibility that the excess acceleration results from solar radiation pressure. The required mass-to-area ratio is $(m/A) \approx 0.1 \text{ g/cm}^2$. For a thin sheet this requires a thickness of $\approx 0.3\text{--}0.9 \text{ mm}$. We find that although extremely thin, such an object would survive interstellar travel over Galactic distances of $\approx 5 \text{ kpc}$, withstanding collisions with gas and dust grains as well as stresses from rotation and tidal forces. We discuss the possible origins of such an object. Our general results apply to any light probes designed for interstellar travel.

Keywords: extraterrestrial intelligence | ISM: individual objects (1I/2017 U1) | minor planets | asteroids: general | minor planets | asteroids: individual (1I/2017 U1)

Sprachlehre

DAVIS 2018

Brent Davis, *The Phaistos Disk, A new way of viewing the language behind the script.* [Oxford Journal of Archaeology 37 \(2018\), 373–410.](#)

This paper outlines a new linguistics-based method of investigating the languages behind the undeciphered members of the Bronze Age Aegean family of syllabic scripts. Using this new method to compare the pictographic script on the Phaistos Disk against Linear A, the main script of the Minoans, reveals a statistically significant similarity in the behaviour of the homomorphs in the two scripts, strongly suggesting that both scripts encode the same language.

REY 2018

Jean-Sébastien Rey, *Reflections on the Critical Edition of the Hebrew Text of Ben Sira, Between Eclecticism and Pragmatism.* [Textus 27 \(2018\), 185–202.](#)

If, in certain cases, we can partially reconstruct the historical development of a text, and reconstruct one form of an archetype, the result will be just one stage of the text among many others. This was neither the original nor the final text, but just one stage within a long process of transformation. The question, then, is: is it methodologically pertinent to produce an edition of an ideal form that we do not have and is not the original and that presents just a hypothetical and accidental photograph of one stage of the text among many in a long process?

This article aims to confront and question the theoretical distinction between textual criticism and redaction criticism from a pragmatic perspective. In order to accomplish this goal, we will examine the Hebrew manuscripts of Ben Sira as a test case and a paradigmatic example. The following situations will be examined: cases of irreducible divergences between the Hebrew witnesses, scribal “mistakes,” doublets in MSS A and B, and the so-called Hebrew II.

Keywords: textual criticism | critical edition | philology | textual mouvance | Ben Sira | Hebrew

SCHATTNER-RIESER 1998

Ursula A. Schattner-Rieser, *L'araméen des manuscrits de la Mer Morte*. Dissertation, Université de recherche Paris Sciences et Lettres ([Paris 1998](#)).

SCHATTNER-RIESER 2004

Ursula Schattner-Rieser, *L'araméen des manuscrits de la mer Morte, Band 1: Grammaire*. ([Prahins 2004](#)).