

References

Aktuell

MAGIOLI 2019

Marcelo Magioli et al., *Human-modified landscapes alter mammal resource and habitat use and trophic structure*. [PNAS 116 \(2019\), 18466–18472](#).

[pnas116-18466-Supplement.pdf](#)

The broad negative consequences of habitat degradation on biodiversity have been studied, but the complex effects of natural–agricultural landscape matrices remain poorly understood. Here we used stable carbon and nitrogen isotopes to detect changes in mammal resource and habitat use and trophic structure between preserved areas and human-modified landscapes (HMLs) in a biodiversity hot spot in South America. We classified mammals into trophic guilds and compared resource use (in terms of C3- and C4-derived carbon), isotopic niches, and trophic structure across the 2 systems. In HMLs, approximately one-third of individuals fed exclusively on items from the agricultural matrix (C4), while in preserved areas, $\approx 68\%$ depended on forest remnant resources (C3). Herbivores, omnivores, and carnivores were the guilds that most incorporated C4 carbon in HMLs. Frugivores maintained the same resource use between systems (C3 resources), while insectivores showed no significant difference. All guilds in HMLs except insectivores presented larger isotopic niches than those in preserved areas. We observed a complex trophic structure in preserved areas, with increasing $\delta^{15}\text{N}$ values from herbivores to insectivores and carnivores, differing from that in HMLs. This difference is partially explained by species loss and turnover and mainly by the behavioral plasticity of resilient species that use nitrogen-enriched food items. We concluded that the landscape cannot be seen as a habitat/nonhabitat dichotomy because the agricultural landscape matrix in HMLs provides mammal habitat and opportunities for food acquisition. Thus, favorable management of the agricultural matrix and slowing the conversion of forests to agriculture are important for conservation in this region.

Keywords: stable isotope analysis | landscape matrix | agriculture | diet | noninvasive sampling

Marcelo Magioli, Marcelo Zacharias Moreira, Renata Cristina Batista Fonseca, Milton Cezar Ribeiro, Márcia Gonçalves Rodrigues & Katia Maria Paschoaletto Micchi de Barros Ferraz

Significance: Knowledge of resource and habitat use by wildlife is essential to support conservation actions. Stable isotope analysis (SIA) is a useful method for the acquisition of this type of information. Samples for SIA can be obtained through indirect and noninvasive Methods, which is favorable for studies of threatened species. We used SIA to compare the resource and habitat use and trophic structure of mammals between preserved areas and human-modified landscapes in a tropical rainforest. Our study shows that mammals in human-modified landscapes present an altered trophic structure and use food items from the agricultural matrix, while they depend on forest resources in preserved areas. Our findings stress the need for favorable management of the agricultural matrix to support wildlife survival.

Anthropologie

HAILE-SELASSIE 2019

Yohannes Haile-Selassie, Stephanie M. Melillo, Antonino Vazzana, Stefano Benazzi & Timothy M. Ryan, *A 3.8-million-year-old hominin cranium from Woranso-Mille, Ethiopia*. *nature* **573** (2019), 214–219.

n573-0214-Supplement1.pdf, n573-0214-Supplement2.xlsx

The cranial morphology of the earliest known hominins in the genus *Australopithecus* remains unclear. The oldest species in this genus (*Australopithecus anamensis*, specimens of which have been dated to 4.2–3.9 million years ago) is known primarily from jaws and teeth, whereas younger species (dated to 3.5–2.0 million years ago) are typically represented by multiple skulls. Here we describe a nearly complete hominin cranium from Woranso-Mille (Ethiopia) that we date to 3.8 million years ago. We assign this cranium to *A. anamensis* on the basis of the taxonomically and phylogenetically informative morphology of the canine, maxilla and temporal bone. This specimen thus provides the first glimpse of the entire craniofacial morphology of the earliest known members of the genus *Australopithecus*. We further demonstrate that *A. anamensis* and *Australopithecus afarensis* differ more than previously recognized and that these two species overlapped for at least 100,000 years—contradicting the widely accepted hypothesis of anagenesis.

SPOOR 2019

Fred Spoor, *Elusive cranium of early hominin found*. *nature* **573** (2019), 200–202.

A 3.8-million-year-old hominin fossil reveals what the cranium of the oldest known *Australopithecus* species looked like, casting doubt on assumptions about how these ancient relatives of humans evolved.

MRD is a great addition to the fossil record of human evolution. Its discovery will substantially affect our thinking on the origin of the genus *Australopithecus* specifically, and on the evolutionary family tree of early hominins more broadly. This work demonstrates the importance that a single fossil can have in palaeontology, something we should remember when we get puzzled looks and sighs from our colleagues in the experimental biosciences regarding excitement about a sample size of $n = 1$.

YENGO 2019

Loic Yengo, Naomi R. Wray & Peter M. Visscher, *Extreme inbreeding in a European ancestry sample from the contemporary UK population*. *Nature Communications* **10** (2019), 3719, 1–11. DOI:10.1038/s41467-019-11724-6.

NatComm10-a03719-Supplement.pdf

In most human societies, there are taboos and laws banning mating between first- and second-degree relatives, but actual prevalence and effects on health and fitness are poorly quantified. Here, we leverage a large observational study of $\approx 450,000$ participants of European ancestry from the UK Biobank (UKB) to quantify extreme inbreeding (EI) and its consequences. We use genotyped SNPs to detect large runs of homozygosity (ROH) and call EI when $>10\%$ of an individual's genome comprise ROHs. We estimate a prevalence of EI of $\approx 0.03\%$, i.e., $\approx 1/3652$. EI cases have phenotypic means between 0.3 and 0.7 standard deviation below the population mean for 7 traits, including stature and cognitive ability, consistent with inbreeding depression estimated from individuals with low levels of inbreeding. Our study provides DNA-based quantification of the prevalence of EI

in a European ancestry sample from the UK and measures its effects on health and fitness traits.

Bibel

HENDEL 2019

Ronald Hendel, *Abram's Journey as Nexus, Literarkritik and Literary Criticism*. *Vetus Testamentum* (2019), preprint, 1–27. DOI:10.1163/15685330-12341383.

A plea for the complementarity of Literarkritik and literary criticism in biblical scholarship, with a partial genealogy of recent developments, followed by a detailed study of Abram's journey in Gen 11:27-12:9 in the non-P and P texts. Particular attention is paid to stylistic repetitions and implicit links to other texts, yielding a nexus of foreshadowings and backshadowings in each of the component texts. Conclusions include the viability of this non-P text (formerly known as J) and the P text as continuous sources in the Pentateuch, each with a distinctive poetics.

Keywords: literary criticism | source criticism | Genesis | Abraham | Priestly source | Yahwist | Leitwort style

LEUENBERGER 2010

Martin Leuenberger, *JHWHs Herkunft aus dem Süden, Archäologische Befunde – biblische Überlieferungen – historische Korrelationen*. *Zeitschrift für die Alttestamentliche Wissenschaft* **122** (2010), 1–19.

The Southern origin of Yahweh, which is challenged by the Berlin thesis of Matthias Köckert and Henrik Pfeiffer (I), is argued for by a new and more comprehensive evaluation of archaeological data (II) and biblical texts (III). The results correlate with each other in matters of the history of religion and theology and thereby substantiate the origin of the solitary weather-god Yahweh in the Late Bronze Age Araba (IV).

Die von der Berliner These Matthias Köckerts und Henrik Pfeiffers in Frage gestellte ursprüngliche Herkunft Jhwhs aus dem Süden wird nach einer forschungsgeschichtlichen Situierung (I) neu und umfassender als bisher begründet durch eine aktuelle Auswertung archäologischer Befunde (II) und alttestamentlicher Texte (III), die sich religions- und theologiegeschichtlich miteinander korrelieren lassen und so die Ursprungsheimat des solitären Wettergottes Jhwh in der spätbronzezeitlichen Araba wahrscheinlich machen (IV).

SEELIGMANN 1964

I. L. Seeligmann, *A Psalm from Pre-Regal Times*. *Vetus Testamentum* **14** (1964), 75–92.

The conception is of a desert God who appears to his devotees in a settled land. The purpose of his thus revealing himself may vary: in Jdg. v the Deity sets out to save its people from the hands of their adversaries; in Habakkuk it is given a new role—that of pronouncing Judgment upon the wicked, while in our poem the God appears in order to be acclaimed as King over His people. The theophany here implies a pantheon—this hardly allows for the poet to have been aware of a tradition attesting to a Sinaitic revelation but rather serves as proof to the contrary. A pantheon, however, in which the Lord appears as sovereign ruler. This concept betrays Canaanite affinities. As to the hymn of praise, it glorifies the God with whom no God can compare because it is He who delivered his people from the hands of their enemies and He has secured for them the land of blessing.

But He remains a ‘Man of war’ and, in spite of Canaanite influence evident in expressions like **רכב שמים**, **רכב שחקים**, and **במוחימו**, He is not regarded as the Lord of the land, not even as the giver of rain.

The poem we have dealt with bears evidence to two transformations in the historical consciousness of Israel. We see that the assembled tribes can be called ‘Israel’ even prior to the monarchical rule, while their God, the God of the desert helps them to take over a settled land of corn and vintage. It is interesting to note in this connection that the poem does not touch upon the Exodus at all, neither does it refer to the nation’s ancestors as recipients of divine promises. It would seem hard to decide whether this is due to the limited scope of the poem, or whether the poet was as yet not familiar with the details of these traditions. Nevertheless if we are to recall the general trends prevailing in the Bible one would have expected the Exodus to be mentioned in the prologue, at least. Likewise the theme of God’s promise to the Patriarchs, or the mere concept of the land as the promised land, is conspicuous in its absence from, say, the hymn of praise. One can therefore be induced to maintain that the poet is unaware of the promise to the Patriarchs and it is probable that he knew no traditions telling of the Exodus either.

STEINER 2009

Richard C. Steiner & Sid Z. Leiman, *The Lost Meaning of Deuteronomy 33:2 as Preserved in the Palestinian Targum to the Decalogue*. In: NILI SACHER FOX, DAVID A. GLATT-GILAD & MICHAEL J. WILLIAMS (Hrsg.), *Mishneh Todah, Studies in Deuteronomy and Its Cultural Environment in Honor of Jeffrey H. Tigay*. ([Winona Lake 2009](#)), 157–166.

There is no reason to assume on linguistic grounds that the embellishments of the Decalogue in the Palestinian Targum were not composed before the 3rd century c.e. “At some point the Old Palestinian targumim in Standard Literary Aramaic were recast in the younger dialect of Galilean Aramaic. This probably happened after the Bar Kokhba war when the centre of Jewish cultural life moved from Judaea to Galilee.” It has long been recognized that the Palestinian Targum preserves very ancient traditions.

Weinfeld adduces much extrabiblical evidence for a covenant renewal ceremony on Shavuot, especially from the book of Jubilees and the Dead Sea Scrolls. Such a ceremony would be a perfect Sitz im Leben for an embellished Aramaic translation. We should therefore not be surprised to find that the Palestinian Targum of the Decalogue preserves an ancient exegetical tradition that was lost everywhere else.

Datierung

SAYLOR 2019

Beverly Z. Saylor et al., *Age and context of mid-Pliocene hominin cranium from Woranso-Mille, Ethiopia*. *nature* **573** (2019), 220–224.

A fossil hominin cranium was discovered in mid-Pliocene deltaic strata in the Godaya Valley of the northwestern WoransoMille study area in Ethiopia. Here we show that analyses of chemically correlated volcanic layers and the palaeomagnetic stratigraphy, combined with Bayesian modelling of dated tuffs, yield an age range of 3.804 ± 0.013 to 3.777 ± 0.014 million years old (mean $\pm 1\sigma$) for the deltaic strata and the fossils that they contain. We also document deposits of a perennial lake beneath the deltaic sequence. Mammalian fossils associated

with the cranium represent taxa that were widespread at the time and data from botanical remains indicate that the vegetation in the lake and delta catchment was predominantly dry shrubland with varying proportions of grassland, wetland and riparian forest. In addition, we report high rates of sediment accumulation and depositional features that are typical of a steep topographic relief and differ from younger Woranso-Mille fossil localities, reflecting the influence of active rift processes on the palaeolandscape.

Beverly Z. Saylor, Luis Gibert, Alan Deino, Mulugeta Alene, Naomi E. Levin, Stephanie M. Melillo, Mark D. Peaple, Sarah J. Feakins, Benjamin Bourel, Doris Barboni, Alice Novello, Florence Sylvestre, Stanley A. Mertzman & Yohannes Haile-Selassie

Islam

AVNI 1994

Gideon Avni, *Early Mosques in the Negev Highlands, New Archaeological Evidence on Islamic Penetration of Southern Palestine*. [Bulletin of the American Schools of Oriental Research](#) **294** (1994), 83–100.

A number of early mosques associated with a widespread system of settlements that existed during the sixth to eighth centuries c.E. have been discovered in recent years throughout the Negev Highlands. Thus far, 12 mosques of different types have been recorded. These include mosques built either within urban settlements or adjacent to rural settlements, and mosques connected with nomadic populations in the southern Negev Highlands. Recent archaeological evidence suggests that the source of the open mosques constructed near rural and nomadic sites in the Negev Highlands is to be sought in the stele cult that was widely disseminated in Nabataean and Byzantine times. The chronological framework of the early mosques, their connection to dated settlements, and the formal relations between the stele cult and the mosques seem more consistent with a picture of gradual Islamic penetration into southern Palestine than with a swift adoption of canonical Islam in the wake of a single wave of conquest.

AVNI 2007

Gideon Avni, *From Standing Stones to Open Mosques in the Negev Desert, The Archaeology of Religious Transformation on the Fringes*. [Near Eastern Archaeology](#) **70** (2007), 124–138.

What are the implications of this process of gradual religious change for broader areas of the Near East, and how can the archaeological finds from the Negev contribute to the understanding of the advent of Islam from Arabia? The continuity of Christian presence in the Negev towns resembles that in other regions of the Levant in form and volume, and it seems that these sites were not affected by the advent of Islam. The correlation between the open-air mosques and the standing stones cult links the nomadic population of the Negev to previous desert cultures?mainly the Nabataean, and paves the way for a wider perspective of the interrelations between the local pastoralists and invading Arab tribes. Contrary to common views, which argue for a rapid penetration of formative Islam into southern Palestine, the archaeological evidence from the Negev points toward a much slower process between the seventh and ninth centuries CE. This gradual transformation was isolated from the major geopolitical and religious turmoil farther north, and should therefore be considered within local and regional spheres. Nevertheless the pattern of change reflected in the archaeological record from the Negev may serve as a model for other fringe areas of the Near East, in which regional

transformations from paganism and Christianity to Islam occurred in the turbulent period following the Islamic conquests.

BONNER 1992

Michael Bonner, *Some Observations concerning the Early Development of Jihad on the Arab-Byzantine Frontier*. *Studia Islamica* 75 (1992), 5–31.

Throughout the early ‘Abbasid period, the war against Byzantium was mainly conducted, as before, by the caliph’s governors and other representatives. This fact might lead us to describe the attitudes which here have been ascribed to Fazari and Ibn al-Mubarak as the minority views of outsiders. But this view will not hold. According to one story, when the caliph Harun al-Rashid (r. 786-809) once arrived in al-Raqqah on his way to the frontier, the people of that town were so eager to hear and follow Ibn al-Mubarak that an umm walad of the caliph exclaimed that Ibn al-Mubarak was king, and not Harun. Elsewhere Harun is said to have expressed admiration for Fazari and Ibn al-Mubarak. Of course these stories occur in biographies of religious scholars, prejudiced in favor of their subjects, but the fact remains that Harun made much of his activity as “ghazi-caliph,” and campaigned frequently against the Byzantines. We may note also that Harun was actually the first such “ghazi-caliph”, and that in assuming this role he followed the precepts of the religious scholars, who gave him high marks for this. The attitudes and teachings of Fazari and Ibn al-Mubarak, while not universally imitated and accepted, thus had some effect on at least one caliph, and certainly remained dominant among scholar-ascetics in the Byzantine frontier region for as long as it lasted.

GUILLAUME 1955

A. Guillaume, *The Life of Muhammad, A Translation Of Ishāq’s Sīrat Rasūl Allāh with Introduction and Notes*. (Karachi 1998).

HAWTING 1980

G. R. Hawting, *The Disappearance and Rediscovery of Zamzam and the ‘Well Of The Ka’ba’*. *Bulletin of the School of Oriental and African Studies* 43 (1980), 44–54.

The evidence discussed in this paper, therefore, seems to allow the following tentative reconstruction of the background to the traditions about the burial and rediscovery of Zamzam and the ‘well of the Ka’ba’. Developing certain Jewish ideas, early Islam associated the sanctuary with a pit or well. This idea was connected with the theory that the sanctuary was the navel of the earth and in particular was associated with the tradition of the burial of the sanctuary objects. Before the Meccan sanctuary became firmly established as the Muslim sanctuary, these ideas found expression in traditions about the well of the sanctuary, the bi’r al-Ka’ba. When the Meccan sanctuary was taken over by Islam, however, the well of that sanctuary, Zamzam, came to displace the earlier bi’r al-Ka’ba, and the tradition of the burial of the sanctuary objects was attached to Zamzam. Since the sanctuary objects were now no longer relevant, however, the tradition was reworked and became a tradition about the burial of Zamzam itself. At the same time the bi’r al-Ka’ba was reinterpreted and the material about it adapted to give it a place in the new scheme of things. Now it came to be explained as a treasury or receptacle for votive offerings. This development can only be expressed generally, and many details remain obscure, but it is considered that it fits in with the evidence of the traditions as interpreted here.

Klima

WAGNER 2019

Bernd Wagner et al., *Mediterranean winter rainfall in phase with African monsoons during the past 1.36 million years*. [nature](#) **573** (2019), 256–260.

Mediterranean climates are characterized by strong seasonal contrasts between dry summers and wet winters. Changes in winter rainfall are critical for regional socioeconomic development, but are difficult to simulate accurately¹ and reconstruct on Quaternary timescales. This is partly because regional hydroclimate records that cover multiple glacial–interglacial cycles^{2,3} with different orbital geometries, global ice volume and atmospheric greenhouse gas concentrations are scarce. Moreover, the underlying mechanisms of change and their persistence remain unexplored. Here we show that, over the past 1.36 million years, wet winters in the northcentral Mediterranean tend to occur with high contrasts in local, seasonal insolation and a vigorous African summer monsoon. Our proxy time series from Lake Ohrid on the Balkan Peninsula, together with a 784,000-year transient climate model hindcast, suggest that increased sea surface temperatures amplify local cyclone development and refuel North Atlantic low-pressure systems that enter the Mediterranean during phases of low continental ice volume and high concentrations of atmospheric greenhouse gases. A comparison with modern reanalysis data shows that current drivers of the amount of rainfall in the Mediterranean share some similarities to those that drive the reconstructed increases in precipitation. Our data cover multiple insolation maxima and are therefore an important benchmark for testing climate model performance.

Bernd Wagner, Hendrik Vogel, Alexander Francke, Tobias Friedrich, Timme Donders, Jack H. Lacey, Melanie J. Leng, Eleonora Regattieri, Laura Sadori, Thomas Wilke, Giovanni Zanchetta, Christian Albrecht, Adele Bertini, Nathalie Combourieu-Nebout, Aleksandra Cvetkoska, Biagio Giaccio, Andon Grazhdani, Torsten Hauffe, Jens Holtvoeth, Sebastien Joannin, Elena Jovanovska, Janna Just, Katerina Kouli, Ilias Kousis, Andreas Koutsodendris, Sebastian Krastel, Markus Lagos, Niklas Leicher, Zlatko Levkov, Katja Lindhorst, Alessia Masi, Martin Melles, Anna M. Mercuri, Sebastien Nomade, Norbert Nowaczyk, Konstantinos Panagiotopoulos, Odile Peyron, Jane M. Reed, Leonardo Sagnotti, Gaia Sinopoli, Björn Stelbrink, Roberto Sulpizio, Axel Timmermann, Slavica Tofilovska, Paola Torri, Friederike Wagner-Cremer, Thomas Wonik & Xiaosen Zhang

Metallzeiten

PAULETTE 2016

Tate Paulette, *Grain, Storage, and State Making in Mesopotamia (3200–2000 BC)*. In: LINDA R. MANZANILLA & MITCHELL S. ROTHMAN (Hrsg.), *Storage in Ancient Complex Societies, Administration, Organization, and Control*. (New York 2016), 85–109.

To close, I would like to emphasize a few key points. First, the political history of Mesopotamia during the fourth and third millennia BC is not a history of the state; it is a history of states (plural) and state making. Although I recognize that the term state can be problematic for a number of reasons (e.g., Smith 2003: 78–111), I have used the term to highlight the fact that the idea of the state—the state as a fully integrated totality from which, there is no possibility of escape—is not just an artifact of recent history. This idea was already being developed and deployed in early Mesopotamia, and it must be taken into account, even if

the ultimate goal is to tear down the facade and produce a more complicated account of institutional construction and political practice. One of the ways to begin tearing down this facade is to focus on the practicalities of state making, that is, on the symbolic production of the state idea and the material production of an institutional apparatus. I have focused on this institutional apparatus and, in particular, on the role of grain and grain storage.

In all of the diverse attempts at state making outlined above, grain occupied a key strategic position, most crucially as a means of gaining access to and control over labor. These state-making projects were not (or were not solely) abstract experiments in social and political philosophy, efforts to redefine and reshuffle existing notions of authority, rule, duty, dependency, and so forth. They were power grabs that required control over the production and distribution of basic foodstuffs. State making was conducted, to a large extent, in the realm of gastro-politics (Appadurai 1981: 495), and in Mesopotamia gastro-politics was all about grain—the cultivation, stockpiling, and distribution of grain.

In this chapter, I have suggested that a quantitative examination of grain storage practices offers one means of beginning to disentangle the rhetoric of state making from the material practicalities of institutional construction and maintenance. As demonstrated in the briefcase study, this approach may not always result in definitive conclusions, but it does help us to think in more concrete terms about the scope and the limits of institutional power in Mesopotamia.

Politik

DERZSY 2019

Noemi Derzsy, *The dynamics of online hate*. [nature 573 \(2019\), 203–204](#).

An analysis of the dynamics of online hate groups on social-media platforms reveals why current methods to ban hate content are ineffective, and provides the basis for four potential strategies to combat online hate.

Online social-media platforms are challenging to regulate. Efforts to ban and remove hate-related content have proved ineffective.

In policy 1, the authors propose banning relatively small hate clusters, rather than removing the largest online hate cluster.

Policy 2 instead recommends banning a small number of users selected at random from online hate clusters.

Policy 3 recommends that platform administrators promote the organization of clusters of anti-hate users.

Policy 4 suggests that the platform administrators introduce an artificial group of users to encourage interactions between hate clusters that have opposing views, with a view to the hate clusters subsequently battling out their differences among themselves.

JOHNSON 2019

N. F. Johnson, R. Leahy, N. Johnson Restrepo, N. Velasquez, M. Zheng, P. Manrique, P. Devkota & S. Wuchty, *Hidden resilience and adaptive dynamics of the global online hate ecology*. [nature 573 \(2019\), 261–265](#).

[n573-0261-Supplement1.pdf](#), [n573-0261-Supplement2.xlsx](#)

Online hate and extremist narratives have been linked to abhorrent real-world events, including a current surge in hate crimes^{1–6} and an alarming increase in youth suicides that result from social media vitriol⁷; inciting mass shootings such

as the 2019 attack in Christchurch, stabbings and bombings^{8–11}; recruitment of extremists^{12–16}, including entrapment and sex-trafficking of girls as fighter brides¹⁷; threats against public figures, including the 2019 verbal attack against an anti-Brexit politician, and hybrid (racist–anti-women–anti-immigrant) hate threats against a US member of the British royal family¹⁸; and renewed anti-western hate in the 2019 post-ISIS landscape associated with support for Osama Bin Laden’s son and Al Qaeda. Social media platforms seem to be losing the battle against online hate^{19,20} and urgently need new insights. Here we show that the key to understanding the resilience of online hate lies in its global network-of-network dynamics. Interconnected hate clusters form global ‘hate highways’ that—assisted by collective online adaptations—cross social media platforms, sometimes using ‘back doors’ even after being banned, as well as jumping between countries, continents and languages. Our mathematical model predicts that policing within a single platform (such as Facebook) can make matters worse, and will eventually generate global ‘dark pools’ in which online hate will flourish. We observe the current hate network rapidly rewiring and self-repairing at the micro level when attacked, in a way that mimics the formation of covalent bonds in chemistry. This understanding enables us to propose a policy matrix that can help to defeat online hate, classified by the preferred (or legally allowed) granularity of the intervention and top-down versus bottom-up nature. We provide quantitative assessments for the effects of each intervention. This policy matrix also offers a tool for tackling a broader class of illicit online behaviours^{21,22} such as financial fraud.