

References

Afrika

PIKIRAYI 2022

Innocent Pikirayi et al., *Climate-smart harvesting and storing of water, The legacy of dhaka pits at Great Zimbabwe*. *Anthropocene* **40** (2022), 100357, 1–11.

Understanding past water management is crucial to address contemporary human-environmental challenges in sub-Saharan Africa, where urban growth is impacting upon water availability and supply. This study integrates soil profiles, high-resolution topographic data, historical sources, and socioecological memory to reconstruct how the ancient urban society at Great Zimbabwe negotiated water security. New evidence shows for the first time that closed depressions known as dhaka pits were used by the inhabitants of Great Zimbabwe for water storage and harvesting for a long time, possibly since the emergence of settlement in the mid-second millennium CE. These pits were part of a landscape-scale water management system that exploited catchment hydrology and groundwater by means of artificial dhaka reservoirs, wells, and springs to secure water for subsistence, farming, ritual and ceremony services. This study Highlights the need for precise dating of the construction and functioning period of this water management system at Great Zimbabwe. Understanding past water management in such a water-scarce region is important for reconstructing how the ancient Great Zimbabwe urban society negotiated water security, but also for understanding contemporary human-environmental challenges.

Keywords: Great Zimbabwe | Water reservoirs | Urban landscapes | Geoarchaeology | Airbone Laser Scanning

Innocent Pikirayi, Federica Sulas, Bongumenzi Nxumalo, Munyaradzi Elton Sagiya, David Stott, Søren M. Kristiansen, Shadreck Chirikure & Tendai Musindo

Aktuell

BOR 2023

Alexander Bor, Frederik Jørgensen & Michael Bang Petersen, *Discriminatory attitudes against unvaccinated people during the pandemic*. *nature* **613** (2023), 704–711. DOI:10.1038/s41586-022-05607-y.

n613-0704-Supplement.pdf

During the COVID-19 pandemic, sizeable groups of unvaccinated people persist even in countries with high vaccine access¹. As a consequence, vaccination became a controversial subject of debate and even protest². Here we assess whether people express discriminatory attitudes in the form of negative affectivity, stereotypes and exclusionary attitudes in family and political settings across groups defined by COVID-19 vaccination status. We quantify discriminatory attitudes between vaccinated and unvaccinated citizens in 21 countries, covering a diverse set of cultures across the world. Across three conjoined experimental studies ($n = 15,233$), we demonstrate that vaccinated people express discriminatory attitudes towards unvaccinated individuals at a level as high as discriminatory attitudes that are commonly aimed at immigrant and minority populations^{3–5}. By contrast,

there is an absence of evidence that unvaccinated individuals display discriminatory attitudes towards vaccinated people, except for the presence of negative affectivity in Germany and the USA. We find evidence in support of discriminatory attitudes against unvaccinated individuals in all countries except for Hungary and Romania, and find that discriminatory attitudes are more strongly expressed in cultures with stronger cooperative norms. Previous research on the psychology of cooperation has shown that individuals react negatively against perceived ‘free-riders’^{6,7}, including in the domain of vaccinations^{8,9}. Consistent with this, we find that contributors to the public good of epidemic control (that is, vaccinated individuals) react with discriminatory attitudes towards perceived free-riders (that is, unvaccinated individuals). National leaders and vaccinated members of the public appealed to moral obligations to increase COVID-19 vaccine uptake^{10,11}, but our findings suggest that discriminatory attitudes—including support for the removal of fundamental rights—simultaneously emerged.

Anthropologie

STOCK 2023

Jay T. Stock, Emma Pomeroy, Christopher B. Ruf & Jonathan C. K. Wells et al., *Long-term trends in human body size track regional variation in subsistence transitions and growth acceleration linked to dairying*. [PNAS 120 \(2023\), e2209482119](#).

[pnas120-e2209482119-Supplement.pdf](#)

Evidence for a reduction in stature between Mesolithic foragers and Neolithic farmers has been interpreted as reflective of declines in health, however, our current understanding of this trend fails to account for the complexity of cultural and dietary transitions or the possible causes of phenotypic change. The agricultural transition was extended in primary centers of domestication and abrupt in regions characterized by demic diffusion. In regions such as Northern Europe where foreign domesticates were difficult to establish, there is strong evidence for natural selection for lactase persistence in relation to dairying. We employ broad-scale analyses of diachronic variation in stature and body mass in the Levant, Europe, the Nile Valley, South Asia, and China, to test three hypotheses about the timing of subsistence shifts and human body size, that: 1) the adoption of agriculture led to a decrease in stature, 2) there were different trajectories in regions of in situ domestication or cultural diffusion of agriculture; and 3) increases in stature and body mass are observed in regions with evidence for selection for lactase persistence. Our results demonstrate that 1) decreases in stature preceded the origins of agriculture in some regions; 2) the Levant and China, regions of in situ domestication of species and an extended period of mixed foraging and agricultural subsistence, had stable stature and body mass over time; and 3) stature and body mass increases in Central and Northern Europe coincide with the timing of selective sweeps for lactase persistence, providing support for the “Lactase Growth Hypothesis.”

Keywords: bioarchaeology | agriculture | health | domestication | human adaptation

Jay T. Stock, Emma Pomeroy, Christopher B. Ruf, Marielle Brown, Matthew A. Gasperetti, Fa-Jun Li, Lisa Maher, Caroline Malone, Veena Mushrif-Tripathy, Eóin Parkinson, Michael Rivera, Yun Ysi Siew, Soija Stefanovic, Simon Stoddart, Gunita Zariņa & Jonathan C. K. Wells

Significance: The transition from foraging to herding and farming influenced human health, but the impact of regional differences in trajectories of cultural

change on human biology are poorly resolved. We investigate longterm trends in human stature and body mass of 3,507 skeletons from 366 archaeological sites in seven regions with varying trajectories of Holocene subsistence change. We observe declines in body size that preceded the transition to agriculture, and significant regional variation following the transition. Holocene statures and body mass remained relatively stable in primary regions of domestication; however, in areas such as Central and Northern Europe where non-native crops were difficult to establish, increases in stature and body mass coincide with the timing of selective sweeps for lactase persistence.

STONEKING 2023

Mark Stoneking, Leonardo Arias, Dang Liu, Sandra Oliveira, Irina Pugach & Jae Joseph Russell B. Rodriguez, *Genomic perspectives on human dispersals during the Holocene*. [PNAS 120 \(2023\), e2209475119](#). [pnas120-e2209475119-Supplement.pdf](#)

Nearly 20 y ago, Jared Diamond and Peter Bellwood reviewed the evidence for the associated spread of farming and large language families by the demographic expansions of farmers. Since then, advances in obtaining and analyzing genomic data from modern and ancient populations have transformed our knowledge of human dispersals during the Holocene. Here, we provide an overview of Holocene dispersals in the light of genomic evidence and conclude that they have a complex history. Even when there is a demonstrated connection between a demographic expansion of people, the spread of agriculture, and the spread of a particular language family, the outcome in the Results of contact between expanding and resident groups is highly variable. Further research is needed to identify the factors and social circumstances that have influenced this variation and complex history.

Keywords: genomics | dispersal | Holocene | humans

Bibel

GABBAY 2021

URI GABBAY & SHAI GORDIN (Hrsg.), *Individuals and Institutions in the Ancient Near East, A Tribute to Ran Zadok*. Studies in Ancient Near Eastern Records 27 ([Boston 2021](#)).

HENSEL 2021

BENEDIKT HENSEL (Hrsg.), *The History of the Jacob Cycle (Genesis 25–35), Recent Research on the Compilation, the Redaction, and the Reception of the Biblical Narrative and Its [...] Contexts*. Archaeology and Bible 4 ([Tübingen 2021](#)).

NA'AMAN 2020

Nadav Na'aman, *Dating the Abraham-Lot Stories in Light of Textual Evidence and Greek Legends*. [Ugarit-Forschungen 51 \(2020\), 133–152](#).

The article argues that the pre-Priestly Abraham narratives in Genesis 13, 18 and 19 were composed in north Judah after Jerusalem's destruction in 587/86 BCE. They reflect the remainees' anxiety and fears after the capital's destruction and the elite's deportation. These conclusions explain the centrality of themes like continuity, ancestry, land, and God's justice in his handling of his people. The Abraham story embodies a promise of God's care for his people and reassurance

of their future endurance; and the Sodom paradigm illustrates God's justice in his handling of Jerusalem and its inhabitants. The article posits a direct influence of Aegean legends on the Abraham-Lot narratives in Chapters 18–19. Among these legends are the journey of three gods and the birth of Orion; the Philemon and Baucis legend; Orpheus and Eurydice in the underworld; and the incest of Smyrna/Myrrha and Thias/Cinyras and the birth of Adonis. The comparison made between these legends and the Abraham-Lot stories indicates that distinct motifs in these stories were borrowed from Aegean oral tales. The channel of transfer might have been the Anatolian mercenaries who served in Judah's army in the sixth century BCE and might have recounted these stories to the local scribes and elite.

Keywords: Abraham | Lot | Hebron | Sodom | remainees | Aegean legends | Anatolian mercenaries

NA'AMAN 2021

Nadav Na'aman, *Jacob's Initiation Story, A Judahite Late-Monarchical Composition*. *Semitica* **63** (2021), 141–167.

The article suggests that the unified Jacob-Esau-Laban story in Genesis 25, 27–33* was composed in Judah in the late monarchical period. The two ethnic groups that took part in the plot are the Edomites of the Negev and Mount Seir and the Arameans of the Harran region. The selection of these ethnic groups is deliberate, as the relations with both of them were particularly relevant for the author and his audience. Isaac and Jacob are presented in the story-cycle as the ancestors of 'Biblical Israel', and the story-cycle was probably composed in writing in the late monarchical period, either at the royal court of Jerusalem or at the temple. The narrative might be considered an initiation story, and the literary element that unifies the plot is that of Jacob's gradual development of the skills of a trickster.

Keywords: Isaac | Jacob | Esau | Edomites | Arameans | Harran | Bethel | Peniel

TOBOLOWSKY 2017

Andrew Tobolowsky, *The Sons of Jacob and the Sons of Herakles, The History of the Tribal System and the Organization of Biblical Identity*. *Forschungen zum Alten Testament* 96 (Tübingen 2017).

USSISHKIN 2021

David Ussishkin, *The Late Bronze II–III Royal Palaces at Megiddo, A Rejoinder*. *Ägypten und Levante* **31** (2021), 473–486.

Finkelstein, Martin, Arie and Piasezky recently discussed the history and archaeology of Megiddo during the Late Bronze Age, relying in the main on the archaeological data and radio-metric dates acquired in the renewed excavations of Tel Aviv University. In their discussions, much emphasis is put on the Strata VIII VIIA palaces dug at the time by the Chicago Oriental Institute, the final destruction of the Stratum VIIA palace and its date, and the first appearance of Philistine bichrome pottery in Megiddo. Many of their conclusions regarding these issues are challenged in the present rejoinder.

Keywords: Megiddo | Philistine Pottery | Gilgamesh Tablet

USSISHKIN 2021

David Ussishkin, *The Date of the Cyclopean Wall at Tell er-Rumēde / Tēl Hevrōn*. *Zeitschrift des Deutschen Palästina-Vereins* **137** (2021), 125–136.

It seems clear that the Cyclopean Wall, usually considered to have been constructed in MB II, and the rampart extending in front of the Cyclopean wall, considered to have been added to the fortification line in IA II, in fact form parts of a single architectural scheme which had been concurrently built.

The pottery uncovered by EISENBERG and BEN-SHLOMO in the earthen rampart laid against the Cyclopean Wall indicates the date of the entire fortification line. The fills contained pottery fragments from different periods, the latest being IA II fragments of types used in Judah in the 8th and 7th cent. B.C.E. Based on the evidence of the pottery it can be concluded that Judean Hebron was fortified in the later part of the period of the Judean Kingdom, most likely in the 7th cent. B.C.E., during the reigns of Manasseh or Josiah.

The massive fortification of Hebron is another indication of the significant role which Hebron played in the period of the Judean kingdom. Hebron was the place of origin of the Davidic dynasty. Hebron is one of the four cities mentioned on the mlk stamps – a royal Judean system of stamping storage jars which was introduced in the later part of the 8th cent. B.C.E.

At the present state of our knowledge, it remains unclear when – and if at all – ancient Hebron was fortified before the 7th cent. B.C.E. EISENBERG uncovered a segment of Wall A at the northern side of the site and dated it to EB III. However, it remains unclear whether Wall A surrounded the entire site, as suggested by CHADWICK 49, or whether it fortified a small citadel. Furthermore, it remains unclear whether Wall A continued to be in use after the EB III period came to an end.

Neolithikum

FIBIGER 2023

Linda Fibiger, Torbjörn Ahlström, Christian Meyer & Martin Smith, *Conflict, violence, and warfare among early farmers in Northwestern Europe*. [PNAS 120 \(2023\), e2209481119](#).

[pnas120-e2209481119-Supplement.pdf](#)

Bioarchaeological evidence of interpersonal violence and early warfare presents important insights into conflict in past societies. This evidence is critical for understanding the motivations for violence and its effects on opposing and competing individuals and groups across time and space. Selecting the Neolithic of northwestern Europe as an area for study, the present paper examines the variation and societal context for the violence recorded in the human skeletal remains from this region as one of the most important elements of human welfare. Compiling data from various sources, it becomes apparent that violence was endemic in Neolithic Europe, sometimes reaching levels of intergroup hostilities that ended in the utter destruction of entire communities. While the precise comparative quantification of healed and unhealed trauma remains a fundamental problem, patterns emerge that see conflict likely fostered by increasing competition between settled and growing communities, e.g., for access to arable land for food production. The further development of contextual information is paramount in order to address hypotheses on the motivations, origins, and evolution of violence as based on the study of human remains, the most direct indicator for actual small- and large-scale violence.

Keywords: Neolithic Europe | violence and conflict | warfare | bioarchaeology

Significance: This paper explores the key role bioarchaeology plays in creating meaningful perspectives on human conflict and the emergence of warfare in Neolithic Europe. Skeletal datasets are considered in the context of social, economic, and demographic changes that accompanied the shift to a sedentary farming economy. Increasing competition and inequality are key factors that fostered the

emergence of larger-scale human conflict and warfare. Beyond numbers, these insights should allow for more significant engagement with the unique experiential qualities of violence in prehistory.

PEARSON 2023

Jessica Pearson et al., *Mobility and kinship in the world's first village societies*. *PNAS* **120** (2023), e2209480119.

[pnas120-e2209480119-Supplement.pdf](#)

Around 10,000 y ago in southwest Asia, the cessation of a mobile lifestyle and the emergence of the first village communities during the Neolithic marked a fundamental change in human history. The first communities were small (tens to hundreds of individuals) but remained semisedentary. So-called megasites appeared soon after, occupied by thousands of more sedentary inhabitants. Accompanying this shift, the material culture and ancient ecological data indicate profound changes in economic and social behavior. A shift from residential to logistical mobility and increasing population size are clear and can be explained by either changes in fertility and/or aggregation of local groups. However, as sedentism increased, small early communities likely risked inbreeding without maintaining or establishing exogamous relationships typical of huntergatherers. Megasites, where large populations would have made endogamy sustainable, could have avoided this risk. To examine the role of kinship practices in the rise of megasites, we measured strontium and oxygen isotopes in tooth enamel from 99 individuals buried at PinarbasÖi, Boncuklu, and CÖatalhöyük (Turkey) over 7,000 y. These sites are geographically proximate and, critically, span both early sedentary behaviors (PinarbasÖi and Boncuklu) and the rise of a local megasite (CÖatalhöyük). Our data are consistent with the presence of only local individuals at PinarbasÖi and Boncuklu, whereas at CÖatalhöyük, several nonlocals are present. The CÖatalhöyük data stand in contrast to other megasites where bioarchaeological evidence has pointed to strict endogamy. These different kinship behaviors suggest that megasites may have arisen by employing unique, community-specific kinship practices.

Keywords: stable isotopes | kinship | early villages

Jessica Pearson, Jane Evans, Angela Lamb, Douglas Baird, Ian Hodder, Arkadiusz Marciniak, Clark Spencer Larsen, Christopher J. Knüsel, Scott D. Haddow, Marin A. Pilloud, Amy Bogaard, Andrew Fairbairn, Jo-Hannah Plug, Camilla Mazzucato, Gökhan Mustafaoğlu, Michal Feldman, Mehmet Somel & Eva Fernández-Domínguez

Significance: Strontium and oxygen isotopes were measured for adults who lived in southwest Asia during the foraging-to-farming transition. Data spanning seven millennia show limited mobility during the early Holocene and local partner exchange within small huntergatherer communities in the late Pleistocene. Conversely, later megasites show more mixed patterns of mobility and kinship, with greater genetic diversity and more nonlocals immigrating to these sites. We argue that these data show that the key agents in local kinship practices prior to the emergence of farming were derived more from shared ideologies and associations involving fictive kin (e.g., neither consanguineous [blood] nor affinal [marriage-like] ties). Continuity and diversity in kinship practices suggest that the world's first villages included unique social and biological kinship identities.

WANG 2023

Xiaoran Wang, Eirini Skourtanioti, Patrick Roberts & Philipp W. Stockhammer et al., *Isotopic and DNA analyses reveal multiscale*

PPNB mobility and migration across Southeastern Anatolia and the Southern Levant. [PNAS 120 \(2023\), e2210611120.](#)

[pnas120-e2210611120-Supplement.pdf](#)

Growing reliance on animal and plant domestication in the Near East and beyond during the Pre-Pottery Neolithic B (PPNB) (the ninth to eighth millennium BC) has often been associated with a “revolutionary” social transformation from mobility toward more sedentary lifestyles. We are able to yield nuanced insights into the process of the Neolithization in the Near East based on a bioarchaeological approach integrating isotopic and archaeogenetic analyses on the bone remains recovered from Neval Cori, a site occupied from the early PPNB in Turkey where some of the earliest evidence of animal and plant domestication emerged, and from Ba’ja, a typical late PPNB site in Jordan. In addition, we present the archaeological sequence of Neval Cori together with newly generated radiocarbon dates. Our results are based on strontium ($87\text{Sr}/86\text{Sr}$), carbon, and oxygen ($\text{d}18\text{O}$ and $\text{d}13\text{C}_{\text{carb}}$) isotopic analyses conducted on 28 human and 29 animal individuals from the site of Neval Cori. $87\text{Sr}/86\text{Sr}$ results indicate mobility and connection with the contemporaneous surrounding sites during the earlier PPNB prior to an apparent decline in this mobility at a time of growing reliance on domesticates. Genome-wide data from six human individuals from Neval Cori and Ba’ja demonstrate a diverse gene pool at Neval Cori that supports connectedness within the Fertile Crescent during the earlier phases of Neolithization and evidence of consanguineous union in the PPNB Ba’ja and the Iron Age Neval Cori.

Keywords: Neolithization | Near East | $\text{d}18\text{O}$ and $\text{d}13\text{C}$ isotopes | $87\text{Sr}/86\text{Sr}$ | ancient DNA

Xiaoran Wang, Eirini Skourtanioti, Marion Benz, Julia Gresky, Jana Ilgner, Mary Lucas, Michael Morsch, Joris Peters, Nadja Pöllath, Harald Ringbauer, Petrus le Roux, Michael Schultz, Johannes Krause, Patrick Roberts & Philipp W. Stockhammer

Significance: We present the integrative bioarchaeological study on the Pre-Pottery Neolithic B (PPNB) in the Southeastern Anatolia by combining isotopic data ($87\text{Sr}/86\text{Sr}$, $\text{d}18\text{O}$, and $\text{d}13\text{C}_{\text{carb}}$), new radiocarbon dates, and genomewide data recovered from human skeletal remains from the site of Neval Cori. We also report human genome-wide data from post-Neolithic Neval Cori and the late PPNB site of Ba’ja in the Southern Levant. Our combined isotope and ancient DNA data fill a research gap between prehistoric Anatolian and Levantine populations. Our Results indicate a decline in human mobility after the first phase of the PPNB in the Southeastern Anatolia accompanied by increasing reliance on domesticated resources and evidence of consanguinity in the PPNB Levant.

Politik

CEYLAN 2023

Gizem Ceylan, Ian A. Anderson & Wendy Wood, *Sharing of misinformation is habitual, not just lazy or biased.* [PNAS 120 \(2023\), e2216614120.](#)

[pnas120-e2216614120-Supplement.pdf](#)

Why do people share misinformation on social media? In this research ($N = 2,476$), we show that the structure of online sharing built into social platforms is more important than individual deficits in critical reasoning and partisan bias—commonly cited drivers of misinformation. Due to the reward-based learning systems on social media, users form habits of sharing information that attracts others’ attention. Once habits form, information sharing is automatically activated by

cues on the platform without users considering response outcomes such as spreading misinformation. As a result of user habits, 30 to 40 % of the false news shared in our research was due to the 15 % most habitual news sharers. Suggesting that sharing of false news is part of a broader response pattern established by social media platforms, habitual users also shared information that challenged their own political beliefs. Finally, we show that sharing of false news is not an inevitable consequence of user habits: Social media sites could be restructured to build habits to share accurate information.

Keywords: misinformation | habits | Facebook | social media | outcome insensitivity

Significance: Misinformation is a worldwide concern carrying socioeconomic and political consequences. What drives its spread?. The answer lies in the reward structure on social media that encourages users to form habits of sharing news that engages others and attracts social recognition. Once users form these sharing habits, they respond automatically to recurring cues within the site and are relatively insensitive to the informational consequences of the news shared, whether the news is false or conflicts with their own political beliefs. However, habitual sharing of misinformation is not inevitable: We show that users can be incentivized to build sharing habits that are sensitive to truth value. Thus, reducing misinformation requires changing the online environments that promote and support its sharing.