

## References

### Afrika

HATALA 2020

Kevin G. Hatala et al., *Snapshots of human anatomy, locomotion, and behavior from Late Pleistocene footprints at Engare Sero, Tanzania*. [Scientific Reports 10 \(2020\), 7740. DOI:10.1038/s41598-020-64095-0](#).

fossil hominin footprints preserve data on a remarkably short time scale compared to most other fossil evidence, offering snapshots of organisms in their immediate ecological and behavioral contexts. Here, we report on our excavations and analyses of more than 400 Late Pleistocene human footprints from Engare Sero, Tanzania. The site represents the largest assemblage of footprints currently known from the human fossil record in Africa. Speed estimates show that the trackways reflect both walking and running behaviors. Estimates of group composition suggest that these footprints were made by a mixed-sex and mixed-age group, but one that consisted of mostly adult females. One group of similarly oriented trackways was attributed to 14 adult females who walked together at the same pace, with only two adult males and one juvenile accompanying them. In the context of modern ethnographic data, we suggest that these trackways may capture a unique snapshot of cooperative and sexually divided foraging behavior in Late Pleistocene humans.

Kevin G. Hatala, William E. H. Harcourt-Smith, Adam D. Gordon, Brian W. Zimmer, Brian G. Richmond, Briana L. Pobiner, David J. Green, Adam Metallo, Vince Rossi & Cynthia M. Liutkus-Pierce

### Aktuell

DORN 2020

Florian Dorn et al., *Das gemeinsame Interesse von Gesundheit und Wirtschaft, Eine Szenarienrechnung zur Eindämmung der Coronapandemie*. [ifo Schnelldienst digital 2020, May 13](#). .

Die qualitative Aussage, dass eine leichte und schrittweise Lockerung der Beschränkungen sowohl wirtschaftlich als auch gesundheitspolitisch einer schnellen Aufhebung vorzuziehen ist, halten wir aber für robust.

Florian Dorn, Sahamoddin Khailaie, Marc Stöckli, Sebastian Binder, Berit Lange, Andreas Peichl, Patrizio Vanella, Timo Wollmershäuser, Clemens Fuest und Michael Meyer-Hermann

MAIER 2020

Benjamin F. Maier & Dirk Brockmann, *Effective containment explains subexponential growth in recent confirmed COVID-19 cases in China*. [science 368 \(2020\), 742–746](#).

s368-0742-Supplement.pdf

The recent outbreak of coronavirus disease 2019 (COVID-19) in mainland China was characterized by a distinctive subexponential increase of confirmed cases during the early phase of the epidemic, contrasting with an initial exponential growth

expected for an unconstrained outbreak. We show that this effect can be explained as a direct consequence of containment policies that effectively deplete the susceptible population. To this end, we introduce a parsimonious model that captures both quarantine of symptomatic infected individuals, as well as population-wide isolation practices in response to containment policies or behavioral changes, and show that the model captures the observed growth behavior accurately. The insights provided here may aid the careful implementation of containment strategies for ongoing secondary outbreaks of COVID-19 or similar future outbreaks of other emergent infectious diseases.

## Amerika

### LOMBARDO 2020

Umberto Lombardo, José Iriarte, Lautaro Hilbert, Javier Ruiz-Pérez, José M. Capriles & Heinz Veit, *Early Holocene crop cultivation and landscape modification in Amazonia*. [nature 581 \(2020\), 190–193](#).

[n581-0190-Supplement1.pdf](#), [n581-0190-Supplement2.xlsx](#), [n581-0190-Supplement3.xlsx](#)

The onset of plant cultivation is one of the most important cultural transitions in human history<sup>1–4</sup>. Southwestern Amazonia has previously been proposed as an early centre of plant domestication, on the basis of molecular markers that show genetic similarities between domesticated plants and wild relatives<sup>4–6</sup>. However, the nature of the early human occupation of southwestern Amazonia, and the history of plant cultivation in this region, are poorly understood. Here we document the cultivation of squash (*Cucurbita* sp.) at about 10,250 calibrated years before present (cal. yr bp), manioc (*Manihot* sp.) at about 10,350 cal. yr bp and maize (*Zea mays*) at about 6,850 cal. yr bp, in the Llanos de Moxos (Bolivia). We show that, starting at around 10,850 cal. yr bp, inhabitants of this region began to create a landscape that ultimately comprised approximately 4,700 artificial forest islands within a treeless, seasonally flooded savannah. Our results confirm that the Llanos de Moxos is a hotspot for early plant cultivation and demonstrate that—ever since their arrival in Amazonia—humans have markedly altered the landscape, with lasting repercussions for habitat heterogeneity and species conservation.

### NAKATSUKA 2020

Nathan Nakatsuka et al., *A Paleogenomic Reconstruction of the Deep Population History of the Andes*. [Cell \(2020\), preprint, 1–37](#).  
[DOI:10.1016/j.cell.2020.04.015](https://doi.org/10.1016/j.cell.2020.04.015).

#### Highlights:

- Ancient DNA transect reveals north-south substructure of Andean highlands by 5,800 BP
- After 5,800 BP, gene flow mixed highland people with their neighbors
- After 2,000 BP, striking genetic continuity through rise and fall of major cultures

There are many unanswered questions about the population history of the Central and South Central Andes, particularly regarding the impact of large-scale societies, such as the Moche, Wari, Tiwanaku, and Inca. We assembled genome-wide data on 89 individuals dating from  $\approx 9,000$ –500 years ago (BP), with a particular focus on the period of the rise and fall of state societies. Today’s genetic structure began to develop by 5,800 BP, followed by bi-directional gene flow between the North and South Highlands, and between the Highlands and Coast. We detect minimal admixture among neighboring groups between  $\approx 2,000$ –500 BP, although we do detect cosmopolitanism (people of diverse ancestries living side-by-side) in

the heartlands of the Tiwanaku and Inca polities. We also highlight cases of long-range mobility connecting the Andes to Argentina and the Northwest Andes to the Amazon Basin.

Nathan Nakatsuka, Iosif Lazaridis, Chiara Barbieri, Pontus Skoglund, Nadin Rohland, Swapan Mallick, Cosimo Posth, Kelly Harkins-Kinkaid, Matthew Ferry, Éadaoin Harney, Megan Michel, Kristin Stewardson, Jannine Novak-Forst, José M. Capriles, Marta Alfonso Durruty, Karina Aranda Álvarez, David Beresford-Jones, Richard Burger, Lauren Cadwallader, Ricardo Fujita, Johnny Isla, George Lau, Carlos Lémuz Aguirre, Steven LeBlanc, Sergio Calla Maldonado, Frank Meddens, Pablo G. Messineo, Brendan J. Culleton, Thomas K. Harper, Jeffrey Quilter, Gustavo Politis, Kurt Rademaker, Markus Reindel, Mario Rivera, Lucy Salazar, José R. Sandoval, Calogero M. Santoro, Nahuel Scheifler, Vivien Standen, Maria Ines Barreto, Isabel Flores Espinoza, Elsa Tomasto-Cagigao, Guido Valverde, Douglas J. Kennett, Alan Cooper, Johannes Krause, Wolfgang Haak, Bastien Llamas, David Reich, & Lars Fehren-Schmitz

We used a semi-automated procedure to build an admixture graph to model representative ancient Central and South-Central Andeans (Patterson et al., 2012) (Figures 4 and 5). Our best fit recapitulates key findings from this study. The earliest Peruvians do not share genetic drift with the later groups in our dataset, except for local continuity at the Lauricocha site. The differentiation between North and South Peru Highlands correlating to later structure is only evident by 5,800–4,100 BP. Post  $\approx$ 2,000 BP South Peru Highlands individuals are modeled as a mixture of earlier South Highlands and North Highlands-related ancestry. Deep ancestry is inferred in Coast individuals, while North Chile individuals can only be fit with ancestry from a different basal lineage. Post  $\approx$ 2,000 BP individuals from the socio-political center of Tiwanaku exhibit mixtures of ancestry related to contemporary people from the Central Peru Coast and South Peru Highlands. An important direction for future work is to obtain ancient DNA from the Coast prior to  $\approx$ 1,600 BP, as well as equally rich ancient DNA data from regions to the north, west, and south of the Central Andes, which will provide further important insights.

## Anthropologie

GIBBONS 2020

Ann Gibbons, *Oldest Homo sapiens bones found in Europe, Pendants of cave bear teeth spark debate about cultural links to Neanderthals.* *science* **368** (2020), 697.

But researchers have puzzled over who crafted “transitional” artifacts—a grab bag of bone tools, beads, and jewelry immediately preceding the Aurignacian. One of these toolkits, called the Initial Upper Paleolithic (IUP), shows up in the Middle East about 47,000 years ago and later appears across Eurasia.

Hublin notes that pendants made from the teeth of cave bears at Bacho Kiro are similar to pendants thought to be the handiwork of later Neanderthals and crafted about 42,000 to 44,000 years ago—the so-called Châtelperronian industry, first found at the Grotte du Renne site in France. He argues that this supports his longheld contention that Neanderthals picked up this type of pendant from moderns.

Debate is sure to continue, but archaeologists welcome the “very significant” dates at Bacho Kiro, says Tom Higham, a radiocarbon specialist at the University of Oxford. “For the first time, we’re able to pin the IUP as being made by anatomically modern humans in Europe.”

## SUTHERLAND 2020

Clare A. M. Sutherland, Nichola S. Burton, Jeremy B. Wilmer & Gillian Rhodes et al., *Individual differences in trust evaluations are shaped mostly by environments, not genes*. *PNAS* **117** (2020), 10218–10224.

[pnas117-10218-Supplement.pdf](#)

People evaluate a stranger’s trustworthiness from their facial features in a fraction of a second, despite common advice “not to judge a book by its cover.” Evaluations of trustworthiness have critical and widespread social impact, predicting financial lending, mate selection, and even criminal justice outcomes. Consequently, understanding how people perceive trustworthiness from faces has been a major focus of scientific inquiry, and detailed models explain how consensus impressions of trustworthiness are driven by facial attributes. However, facial impression models do not consider variation between observers. Here, we develop a sensitive test of trustworthiness evaluation and use it to document substantial, stable individual differences in trustworthiness impressions. Via a twin study, we show that these individual differences are largely shaped by variation in personal experience, rather than genes or shared environments. Finally, using multivariate twin modeling, we show that variation in trustworthiness evaluation is specific, dissociating from other key facial evaluations of dominance and attractiveness. Our finding that variation in facial trustworthiness evaluation is driven mostly by personal experience represents a rare example of a core social perceptual capacity being predominantly shaped by a person’s unique environment. Notably, it stands in sharp contrast to variation in facial recognition ability, which is driven mostly by genes. Our study provides insights into the development of the social brain, offers a different perspective on disagreement in trust in wider society, and motivates new research into the origins and potential malleability of face evaluation, a critical aspect of human social cognition.

**Keywords:** trust | face evaluation | first impressions | behavioral genetics | classical twin design

Clare A. M. Sutherland, Nichola S. Burton, Jeremy B. Wilmer, Gabriëlla A. M. Blokland, Laura Germine, Romina Palermo, Jemma R. Collova & Gillian Rhodes

**Significance:** Rapid impressions of trustworthiness can have extreme consequences, impacting financial lending, partner selection, and death-penalty sentencing decisions. But to what extent do people disagree about who looks trustworthy, and why? Here, we demonstrate that individual differences in trustworthiness and other impressions are substantial and stable, agreeing with the classic idea that social perception can be influenced in part by the “eye of the beholder.” Moreover, by examining twins, we show that individual differences in impressions of trustworthiness are shaped mostly by personal experiences, instead of genes or familial experiences. Our study Highlights individual social learning as a key mechanism by which we individually come to trust others, with potentially profound consequences for everyday trust decisions.

## Judentum

## FREY 2014

Jörg Frey, *Apocalyptic Dualism*. In: JOHN J. COLLINS (Hrsg.), *The Oxford Handbook of Apocalyptic Literature*. (Oxford 2014), 16.

Dualism, a term first coined in 1700 by the English Orientalist Thomas Hyde, refers to a number of philosophical and religious thought systems characterized by a fundamental physical or metaphysical duality. In the history of religions, dualism was also applied to phenomena and doctrines beyond Zoroastrianism, including

Gnosticism or Manichaeism as well as biblical thought patterns. Dualism has also been associated with apocalyptic thought. This article examines apocalyptic dualism in the Hebrew Bible and Second Temple Judaism. It first discusses dualism as a category of scholarship and the emergence of dualistic views in the earliest period of Jewish apocalypticism before turning to the different patterns of dualism represented in the Qumran corpus. It then considers dualism as expressed in the War Scroll from Qumran Cave 1, the pattern of cosmic dualism in the Qumran sectarian texts, eschatological dualism in later apocalyptic literature, and the reception of apocalyptic dualism in early Christian thought.

**Keywords:** dualism | Hebrew Bible | apocalypticism | Qumran | War Scroll | cosmic dualism | apocalyptic literature

## HANSON 1977

Paul D. Hanson, *Rebellion in Heaven, Azazel, and Euhemeristic Heroes in 1 Enoch 6–11*. *Journal of Biblical Literature* **96** (1977), 195–233.

1 Enoch 6-11 thus can be understood as an expository narrative which furnishes a glimpse into one method with which scripture was being interpreted in the late third and second centuries B.C.E. It is a method which, while making the biblical text its point of departure, goes far beyond that text in developing a sectarian explanation of the origin of evil in the world and its ultimate eradication. While the eclecticism with which widely diversified themes and motifs are drawn together is obvious, more noticeable is the overarching unity of structure which is nevertheless achieved. This unity is the result of the basic pattern which underlies the narrative, the archaic pattern of the rebellion-in-heaven myth. That the essential features of this myth can be traced in an unbroken continuum on near eastern soil from the mid-second millennium down to the time of the composition of the Semihazah narrative documents the vitality with which ancient mythic patterns of thought continued to influence the way in which thinkers of later epochs explained the basic tensions which they experienced in the universe.

## Kupfer

## PIGOTT 2011

Vincent C. Pigott, *Sources of Tin and the Tin Trade in Southwest Asia, Recent Research and Its Relevance to Current Understanding*. In: PHILIP P. BETANCOURT & SUSAN C. FERRENCE (Hrsg.), *Metallurgy: Understanding How, Learning why, Studies in Honor of James D. Muhly*. Prehistory Monographs 29 (Philadelphia 2011), 273–291.

In this regard two related issues merit brief mention as they represent important new directions for research. First, among the curiosities of tin-bronze's presence in Southwest Asia is its virtual absence in ancient Iran up until the early 2nd millennium B.C., when it appears at the two Elamite capitals at lowland Susa and highland Tal-e Malyan (Anšan). Additional evidence from Tepe Yahya in southern Iran demonstrates the presence of tinbronze (and brass) in the southern area excavations at the site by ca. 1700 B.C.

Only further research is going to answer the new questions about tin arriving in the ancient Near East that have now arisen. For now, from where the Uluburun ingot tin came remains unclear.

## Religion

HENNING 1943

W. B. Henning, *The Book of the Giants*. [Bulletin of the School of Oriental and African Studies](#) **11** (1943), 52–74.

The story of the fallen angels and their giant sons needed little adaptation to be fitted into Mani's system. Of course, the heavenly origin of the B'ne-ha-Elohim of Genesis vi, 2, 4, the Egregoroi of the Book of Enoch, did not square with Mani's conviction that no evil could come from good. Therefore he transformed them into "demons", namely those demons that when the world was being constructed had been imprisoned in the skies, under the supervision of the Rex Honoris. They rebelled and were recaptured, but two hundred of them escaped to the earth.

POLLACK 2017

Jeremy S. Pollack, *Religion, Confidence, and Warfare, Priming Supernatural Agency Elevates Group Confidence in a Combat Simulation*. MA thesis, California State University, Fullerton ([Fullerton 2017](#)).

Several studies have shown the importance of confidence and even overconfidence in participating in warfare. Some researchers have proposed that religion is an evolutionary adaptation for the capacity to participate in warfare, in part due to its ability to enhance confidence during intergroup violence. Though previous literature has presented compelling theories to support this notion of religion as an adaptation for war, no previous research has addressed this hypothesis under empirical, experimental conditions in a field setting.

This study was designed to test whether supernatural salience would in fact increase confidence in performance prior to and after intergroup combat. In the context of paintball wars, experimentally manipulated state perceptions of supernatural agency, primed via a pre-battle visualization, induced greater confidence prior to battle and enhanced confidence and perceptions of performance after the battle, in subjects primed with supernatural cognition compared to subjects in a neutral condition. The results indicate that a thermostatic balance between costs and benefits to the individual and the group may have been activated—a phenomenon I refer to as the Optimal Social Confidence (OSC) hypothesis. Implications for this and other cognitive mechanisms activated by supernatural priming for the purposes of in-group confidence during competition with out-groups are discussed.

SUNDERMANN 2012

Werner Sundermann, *Giants, The Book Of*. In: *Encyclopædia Iranica*. (Online 2012). <<http://www.iranicaonline.org/articles/giants-the-book-of>> (2020-05-16).