

References

Afrika

FAUVELLE-AYMAR 2006

François-Xavier Fauvelle-Aymar, Karim Sadr, François Bon & Detlef Gronenborn, *The Visibility and Invisibility of Herders' Kraals in Southern Africa, With Reference to a Possible Early Contact Period Khoekhoe Kraal at KFS 5, Western Cape*. [Journal of African Archaeology 4 \(2006\), 253–271](#).

The Europeans who landed on the shores of the South African Cape from the late 15th century onwards encountered local herders whom they later referred to as the Hottentots (now known as the Khoekhoe). There are written references to the settlements and livestock of these pastoralists, but archaeologists have not had much success in discovering any such sites. This absence of archaeological evidence for recent Khoekhoe kraals has been interpreted by some scholars as an indication for a general archaeological invisibility of nomadic pastoralist sites. This article reports on the archaeology of an extensive, low density surface spread of artefacts, KFS 5 (Western Cape), which possibly represents a Khoekhoe kraal dating to the time of the first contact with Europeans. Data are compared to other archaeological evidence of cattle pens in southern Africa and the issues of the visibility of prehistoric and historic kraals are re-addressed.

Keywords: Herders | Southern Africa | historical archaeology | kraal | Khoekhoe | lithic industries | vitrified dung

Aktuell

KUPFERSCHMIDT 2019

Kai Kupferschmidt, *Top Israeli immunologist's views on vaccines trigger furor*. [science 366 \(2019\), 675](#).

Yehuda Shoenfeld has espoused ideas popular among vaccine skeptics and spoken at their meetings.

He is editor-in-chief of both journals of the Israel Medical Association (IMA), serves on the editorial board of dozens of other journals, and was elected a member of the Israel Academy of Sciences and Humanities in June.

Adjuvants' side effects are a "valid issue," says immunologist Ruth Arnon of the Weizmann Institute of Science in Rehovot. Arnon says she has not read the review but considers Shoenfeld "one of the most prominent world experts on autoimmunity" and welcomes his election into the Israeli academy, of which she is a past president.

D'MELLO 2019

Anila D'Mello & Oliver Flynn, *Respect the poster*. [science 366 \(2019\), 766](#).

Anila began to work on her poster 1 week before the conference. The quality didn't matter that much, she thought. After all, hers would be one in a sea of other boring posters, each nervously guarded by a grad student. "No one is even

going to look at it,” she told herself. Anila—a third-year graduate student at the time—considered presenting a poster an obligation, merely what she had to do to secure entry to the conference. She scanned her computer for last year’s template, replaced the old content with some new text and figures, and called it done. She was much more interested in scouring the conference schedule for cool talks by famous scientists, anyway.

PHILLIPS 2019

Helen R. P. Phillips et al., *Global distribution of earthworm diversity. science* **366** (2019), 480–485.

Soil organisms, including earthworms, are a key component of terrestrial ecosystems. However, little is known about their diversity, their distribution, and the threats affecting them. We compiled a global dataset of sampled earthworm communities from 6928 sites in 57 countries as a basis for predicting patterns in earthworm diversity, abundance, and biomass. We found that local species richness and abundance typically peaked at higher latitudes, displaying patterns opposite to those observed in aboveground organisms. However, high species dissimilarity across tropical locations may cause diversity across the entirety of the tropics to be higher than elsewhere. Climate variables were found to be more important in shaping earthworm communities than soil properties or habitat cover. These findings suggest that climate change may have serious implications for earthworm communities and for the functions they provide.

STONE 2019

Richard Stone, *Obscure Cold War nerve agents set to be banned. science* **366** (2019), 404–405.

“Novichoks,” used in 2018 attack on former spy, to come under chemical weapons treaty.

TAM 2019

Vivienne Tam, *Finding community during coffee breaks. science* **366** (2019), 654.

I had always heard the stereotype: North Americans value independence, and Europeans value togetherness. But I never fully understood it until 2 months ago, when I left my Ph.D. lab in Canada for a 4-month stint in a lab in France. On my first day, Pierre—a Ph.D. student whose desk is across from mine—tapped me on my shoulder and asked: “Coffee?” I nodded and followed him down the hallway to the common room, where other grad students were filing in. One student brewed an espresso for me that was five times stronger than my normal Americano. Milk and sugar were nowhere to be found. So I sat there, gingerly sipping the bitter liquid and trying hard not to reveal my uncultured tastes, while lab chatter filled the air.

DEWOODY 2019

J. Andrew DeWoody & Yssa D. DeWoody, *Our unexpected ride. science* **366** (2019), 542.

Life was on track just as we had planned: two university jobs, with tenure for Andrew and a clear path toward a tenure-track position for Yssa (check); the purchase of our first home (check); and three beautiful daughters (check). But 3 months after our youngest daughter Marie was born, she started to have seizures. After a terrifying ambulance ride and a nerve-racking week in a children’s hospital, Marie was diagnosed with ring chromosome 14 syndrome, an exceedingly

rare and debilitating condition caused when the 14th chromosome is fused into a ring. Life for our family was about to switch tracks, and we were along for the ride but no longer in control.

Anthropologie

BÖHME 2019

Madelaine Böhme, Nikolai Spassov & David R. Begun et al., *A new Miocene ape and locomotion in the ancestor of great apes and humans.* [nature](#) **575** (2019), 489–493.

[n575-0489-Supplement.pdf](#)

Many ideas have been proposed to explain the origin of bipedalism in hominins and suspension in great apes (hominids); however, fossil evidence has been lacking. It has been suggested that bipedalism in hominins evolved from an ancestor that was a palmigrade quadruped (which would have moved similarly to living monkeys), or from a more suspensory quadruped (most similar to extant chimpanzees)¹. Here we describe the fossil ape *Danuvius guggenmosi* (from the Allgäu region of Bavaria) for which complete limb bones are preserved, which provides evidence of a newly identified form of positional behaviour—extended limb clambering. The 11.62-million-year-old *Danuvius* is a great ape that is dentally most similar to *Dryopithecus* and other European late Miocene apes. With a broad thorax, long lumbar spine and extended hips and knees, as in bipeds, and elongated and fully extended forelimbs, as in all apes (hominoids), *Danuvius* combines the adaptations of bipeds and suspensory apes, and provides a model for the common ancestor of great apes and humans.

Madelaine Böhme, Nikolai Spassov, Jochen Fuss, Adrian Tröscher, Andrew S. Deane, Jérôme Prieto, Uwe Kirscher, Thomas Lechner & David R. Begun

KIVELL 2019

Tracy L. Kivell, *Fossil ape hints at how bipedal walking evolved.* [nature](#) **575** (2019), 445–446.

Approximately 11.6-million-year-old fossils reveal an ape with arms suited to hanging in trees but human-like legs, suggesting a form of locomotion that might push back the timeline for when walking on two feet evolved.

Living African ape species inhabit the equatorial region of Africa, but, during certain times of the Miocene, many ancestral great apes were living throughout Europe and Asia and migrating both to and out of Africa. Some researchers suggest that the dryopithecins show features found in chimps and gorillas today and therefore make good candidates for the ancestors of living African apes.

Archäologie

KRISTIANSEN 2012

Kristian Kristiansen, *Bronze Age Dialectics, Ritual Economies and the Consolidation of Social Divisions.* In: TOBIAS L. KIENLIN & ANDREAS ZIMMERMANN (Hrsg.), *Beyond Elites – Alternatives to Hierarchical Systems in Modelling Social Formations, International Conference at the Ruhr-Universität Bochum, Germany October 22–24, 2009; Teil 1.* Universitätsforschungen zur prähistorischen Archäologie 215 (Bonn 2012), 381–392.

MÜLLER 2012

Johannes Müller, *Wie entsteht Ungleichheit?* In: TOBIAS L. KIENLIN & ANDREAS ZIMMERMANN (Hrsg.), *Beyond Elites – Alternatives to Hierarchical Systems in Modelling Social Formations, International Conference at the Ruhr-Universität Bochum, Germany October 22–24, 2009; Teil 1*. Universitätsforschungen zur prähistorischen Archäologie 215 (Bonn 2012), 203–211.

Tatsächlich deutet sich in Okolište (trotz der einfachen agrarischen Produktionsweise) eine Verteilung von Ressourcen an, wie sie primär für intensive landwirtschaftliche Gesellschaften typisch sind (Shenk et al. 2010: 66): die Größenunterschiede der Häuser verweisen auf höhere Reproduktionsraten einzelner Familien, die höhere Menge an verarbeitetem Getreide auf größere Zugangsrechte zu Agrarlächen, auch die Hinweise auf die Spezialisierungen sind vergleichbar. In verschiedenen Studien wurde betont, dass Bevölkerungs- und Agrarmodelle für das spätneolithische Visoko-Becken eine Knappheit an Anbaulächen zu erwarten ist, was ebenfalls auf eine stärkere Zuordnung der Landlur zu Dörfern, Weilern oder Familien schließen lässt, – eine Vererbbarkeit von Land. Gleiches könnte für die Rinderhaltung gelten.

Biographie

REHBEIN 1911

Franz Rehbein, *Das Leben eines Landarbeiters, Herausgegeben und mit einem Nachwort von Urs J. Diederichs und Holger Rüdell*. (Hamburg 1995).

Biologie

JOHNSON 2019

Milo S. Johnson, Alena Martsul, Sergey Kryazhimskiy & Michael M. Desai, *Higher-fitness yeast genotypes are less robust to deleterious mutations*. *science* **366** (2019), 490–493.

s366-0490-Supplement.pdf

Natural selection drives populations toward higher fitness, but second-order selection for adaptability and mutational robustness can also influence evolution. In many microbial systems, diminishing-returns epistasis contributes to a tendency for more-fit genotypes to be less adaptable, but no analogous patterns for robustness are known. To understand how robustness varies across genotypes, we measure the fitness effects of hundreds of individual insertion mutations in a panel of yeast strains. We find that more-fit strains are less robust: They have distributions of fitness effects with lower mean and higher variance. These differences arise because many mutations have more strongly deleterious effects in faster-growing strains. This negative correlation between fitness and robustness implies that second-order selection for robustness will tend to conflict with first-order selection for fitness.

MILLER 2019

Craig R. Miller, *The treacheries of adaptation*. *science* **366** (2019), 418–419.

As fitness rises during adaptive evolution, the cost of mutation may escalate as well.

Grabung

HAMMER 2019

Emily Hammer, *The City and Landscape of Ur, An Aerial, Satellite, and Ground Reassessment*. [Iraq \(2019\), preprint, 1–34.](#)
[DOI:10.1017/irq.2019.7.](#)

New fieldwork at Ur has begun to investigate urban scale, city organization, and the environment of the city's hinterland. Analysis of new sources of declassified aerial and satellite imagery from the 1950s and 1960s, recent unmanned aerial vehicle (UAV) photos, and a systematic surface collection show that Ur may have expanded to between 120–500 hectares in size during its later periods of habitation, far larger than the sixty hectare maximum size previously estimated. Traces of buried architecture visible in the UAV photos and topographic models generated from UAV photos allow for the generation of hypotheses about the city plan of Ur during the Late Larsa/Old Babylonian and Neo Babylonian periods. Relict watercourses mapped in the vicinity of the main mound indicate how the city might have been supplied with water in some periods. Alongside this site-based work, historical aerial and satellite imagery provide an updated picture of ancient hydrology, environment, and settlement patterns around Ur.

Islam

KODMANY 2011

Kheir Al-Kodmany, *Planning for Safety, The Case of the Symbolic Stoning of the Devil in Hajj*. [Journal of Architectural and Planning Research 28 \(2011\), 28–43.](#)

More than 2,000 people die every year due to crowd mismanagement at large gatherings, including Hajj, the annual Muslim pilgrimage to Mecca (Widyarto and Abd. Latiff, 2007). This paper explains the planning and design process that improved public safety throughout Hajj, particularly for the Symbolic Stoning of the Devil ritual. The new design is considered successful, as the past three Hajj events were incident-free. This paper concludes with highlighting useful crowd-management lessons that are transferable to other large public gatherings.

Judentum

COHN 1995

Rella Israly Cohn, *Yiddish Given Names, A Lexicon*. Dissertation, University of Chicago ([Ann Arbor 1995](#)).

This dissertation presents a lexicon of Yiddish given names in the modern period, -1750 on. The names are best understood in the context of cultural requirements and patterns, as well as migrations and multilingualism.

The preliminary transcription gives 1. the YIVO transcription for Yiddish; 2. the transcription used for (pointed) Hebrew; and 3, a transcription from Max Weinreich (1950) for early Yiddish (but also used for unpointed Hebrew).

Chapter 1 covers: names and naming; a definition of a Yiddish name; what is distinctive in Yiddish names; the aims of this work—"to establish the modern

corpus and, where possible, the origins of Yiddish names”; some names from pre-modern periods that may be referred to; also, where possible, historical derivations; distinction between base forms and derivational forms; and discussion of “meanings”.

Also in Chapter 1 are found non-rabbinic sources and discussion of the data base.

Chapter 2 presents Max Weinreich’s view of the history of Yiddish, including his dating of Earliest, Old, Middle, and Modern Yiddish. Bilingualism, bidialectism, and multilingualism are involved. Western Yiddish and Eastern Yiddish are distinguished, and the dialects of Eastern Yiddish are described. Max Weinreich’s (1900) Early Vowel Scheme (EVS) and his umlaut relations within that scheme are presented.

KOBER 1903

Adolf Kober, *Studien zur mittelalterlichen Geschichte der Juden in Köln am Rhein, insbesondere ihres Grundbesitzes*. Dissertation, Universität Breslau ([Breslau 1903](#)).

KOBER 1920

Adolf Kober, *Grundbuch des Kölner Judenviertels 1135–1425, Ein Beitrag zur mittelalterlichen Topographie, Rechtsgeschichte und Statistik der Stadt Köln*. Publikationen der Gesellschaft für Rheinische Geschichtskunde 34 ([Bonn 1920](#)).

Klima

VOOSEN 2019

Paul Voosen, *Mud in storied ice core hints at a thawed Greenland*. [science](#) **366** (2019), 556–557.

Dirty base of Camp Century ice core warns of future ice sheet retreat.

“Camp Century is sort of a litmus test,” Steffensen adds. If you can say it was ice free, “that actually points at a severely reduced Greenland Ice Sheet.” Sea level would have been many meters higher than today, even though the climate 1 million years ago was similar to today’s greenhouse-warmed climate. “This stuff is really scary,” Schaefer says.

Bierman adds that it is also very preliminary. Evidence from marine cores and elsewhere also suggests a large fraction of the ice sheet disappeared 400,000 years ago. And DNA found at the bottom of several ice cores is from plants that would have thrived at summer temperatures of 10°C—although its age is uncertain.

Kultur

FEINMAN 2019

Gary M. Feinman & Jill E. Neitzel, *Deflating the myth of isolated communities*. [science](#) **366** (2019), 682–683.

Individual mobility at early settlements raises questions about tenets of culture history.

Likewise, scientists can no longer rely on key tenets of culture-historical framing, which define long-lived, cultural-biological units as purely sedentary and directly traceable across millennia to contemporary populations.

GELFAND 2019

Michele J. Gelfand, *Explaining the puzzle of human diversity*. [science 366 \(2019\), 686–687](#).

Centuries of Church exposure promote more individualistic and less conforming psychology.

Schulz et al. predict that longer exposure to the *Western Catholic Church's Marriage and Family Program*, along with weaker kinship ties that presumably arose from such practices, would drastically alter human psychology, from one that emphasized in-group loyalty, obedience, and conformity, to one that was more individualistic, prosocial toward strangers, and less conforming.

GRONENBORN 2001

Detlef Gronenborn, *Zum (möglichen) Nachweis von Sklaven/Unfreien in prähistorischen Gesellschaften Mitteleuropas*. [Ethnographisch-Archäologische Zeitschrift 42 \(2001\), 1–42](#).

On (possible) evidence of slaves or unfree in prehistoric societies of Central Europe. Up to this date slavery as a social phenomenon has found little attention in Central European Prehistoric Archaeology. One of the main reasons is the lack of visibility of slavery in the archaeological record. Moreover, prehistoric societies are often construed as having been non-hierarchical, hence an existence of slavery is not taken into consideration. The question of slavery and more rigidly organised prehistoric groups is raised again and solutions are sought by using ethnographically documented examples.

Sklaverei als gesellschaftliches Phänomen ist bislang in der prähistorischen Archäologie Mitteleuropas nur selten behandelt worden. Einer der Hauptgründe dürfte die schwierige Nachweisbarkeit von Sklaverei sein. Jedoch hat wohl auch die vielfach vertretene Ansicht, Sklaverei könne es in den konstruierten wenig hierarchisch gegliederten Gesellschaften nicht gegeben haben, eine Auseinandersetzung mit dem Thema verhindert. In dieser Abhandlung wird die Frage erneut aufgegriffen und mit Hilfe ethnographisch dokumentierter Fallbeispiele Ansätze zu einer Berücksichtigung von Sklaverei und möglicherweise rigide geordneter prähistorischer Gesellschaften vorgeschlagen.

GRONENBORN 2016

Detlef Gronenborn, *Some thoughts on political differentiation in Early to Young Neolithic societies in western central Europe*. In: HARALD MELLER, HANS PETER HAHN, REINHARD JUNG & ROBERTO RISCH (Hrsg.), *Arm und Reich – Zur Ressourcenverteilung in prähistorischen Gesellschaften, 8. Mitteldeutscher Archäologentag vom 22. bis 24. Oktober 2015 in Halle (Saale)*. [\(Halle 2016\), 61–75](#).

A combination of various cycle-based approaches from archaeology, mathematical modelling, and the environmental sciences suggests that early farming societies produced political types corresponding to Godelier's "Great Men" at the beginning and towards the end of cyclical trajectories. In the study region, the central European Linear Pottery Culture (LBK) would have produced the earliest appearance of such individuals. Once these political types had emerged, societies seem to have become more stratified, with initial forms of chiefdom-type societies evolving during the subsequent Middle Neolithic, and forms of complex chiefdom-type societies emerging during the Young Neolithic.

Eine Kombination von verschiedenen zyklus-basierten Ansätzen aus der Archäologie, der mathematischen Modellierung und den Umweltwissenschaften scheint darauf hinzuweisen, dass frühe Agrarkulturen jeweils zu Beginn und gegen Ende von zyklischen Abläufen politische Typen hervorbrachten, die Godeliers “Großen Männern” entsprechen. Innerhalb des untersuchten Gebiets war es die mitteleuropäische Linienbandkeramische Kultur (LBK), die als erstes solche Persönlichkeiten hervorbrachte. Hatten sich solche politischen Systeme einmal etabliert, scheint sich die Gesellschaft stärker stratifiziert zu haben, wobei einfache Häuptlingstümer im nachfolgenden Mittelneolithikum und Formen von komplexen Häuptlingstümmern im Jungneolithikum entstanden.

MITTNIK 2019

Alissa Mittnik, Ken Massy, Corina Knipper, Ronny Friedrich, Philipp W. Stockhammer & Johannes Krause et al., *Kinship-based social inequality in Bronze Age Europe*. *science* **366** (2019), 731–734.

s366-0731-Supplement.pdf

Revealing and understanding the mechanisms behind social inequality in pre-historic societies is a major challenge. By combining genome-wide data, isotopic evidence, and anthropological and archaeological data, we have gone beyond the dominating supraregional approaches in archaeogenetics to shed light on the complexity of social status, inheritance rules, and mobility during the Bronze Age. We applied a deep microregional approach and analyzed genome-wide data of 104 human individuals deriving from farmstead-related cemeteries from the Late Neolithic to the Middle Bronze Age in southern Germany. Our results reveal individual households, lasting several generations, that consisted of a high-status core family and unrelated low-status individuals; a social organization accompanied by patrilocality and female exogamy; and the stability of this system over 700 years.

Alissa Mittnik, Ken Massy, Corina Knipper, Fabian Wittenborn, Ronny Friedrich, Saskia Pfrenge, Marta Burri, Nadine Carlich-Witjes, Heidi Deeg, Anja Furtwängler, Michaela Harbeck, Kristin von Heyking, Catharina Kociumaka, Isil Kucukkalpci, Susanne Lindauer, Stephanie Metz, Anja Staskiewicz, Andreas Thiel, Joachim Wahl, Wolfgang Haak, Ernst Pernicka, Stephan Schiffels, Philipp W. Stockhammer & Johannes Krause

SCHULZ 2019

Jonathan F. Schulz, Duman Bahrami-Rad, Jonathan P. Beauchamp & Joseph Henrich, *The Church, intensive kinship, and global psychological variation*. *science* **366** (2019), 707.

s366-0707-Supplement.pdf

Recent research not only confirms the existence of substantial psychological variation around the globe but also Highlights the peculiarity of many Western populations. We propose that part of this variation can be traced back to the action and diffusion of the Western Church, the branch of Christianity that evolved into the Roman Catholic Church. Specifically, we propose that the Western Church’s transformation of European kinship, by promoting small, nuclear households, weak family ties, and residential mobility, fostered greater individualism, less conformity, and more impersonal prosociality. By combining data on 24 psychological outcomes with historical measures of both Church exposure and kinship, we find support for these ideas in a comprehensive array of analyses across countries, among European regions, and among individuals from different cultural backgrounds.

Kupfer

KIENLIN 2001

Tobias L. Kienlin, *Frühes Metall im nordalpinen Raum, Technologische, kognitive und soziale Aspekte früher Metallurgie: Ein Vorbericht. Ethnographisch-Archäologische Zeitschrift* **42** (2001), 65–84.

While excavations and report patterns of material or substances always contribute toward improving knowledge of ancient monument records, the explanation of cultural change in transition from the Stone Age to the Bronze Age still receives a mere token of attention in German research projects. During the sequential introduction and appearance of new metal substances, factors of progress and dynamic would be thought to have followed as it seems logical and consistent while disregarding prerequisites, causes and mechanisms of cultural change. Until present, this contrasting, relevant Anglo-Saxon debate has only been reluctantly accepted in this country. Its advocates lend cardinal significance to social-cultural and social-economic impacts of metallurgy, while utilising the cultural anthropological approach. On the other hand, the archaeological material is inadequately used to support these debates.

At this point, an attempt will be made to newly evaluate sources of social structure with regard to the period under consideration and in doing so, focusing particular attention on cognitive aspects as to the applicable manners in which metal was utilised. Beginning from the point of the early Bronze Age axes from the north Alpine region were analysed to establish a reconsideration of primary technological data in terms of archaeological context. These analyses serve to approach particular aforementioned models of cultural change. Therefore, they significantly determine metal's contributory importance in its relation to the societies at issue.

Während Ausgrabungen und Materialvorlagen zu einer immer besseren Kenntnis des Denkmälerbestandes beitragen, kommt der Erklärung kulturellen Wandels am Übergang von der Steinzeit zur Bronzezeit in der deutschen Forschung nach wie vor keine besondere Aufmerksamkeit zu. Fortschritt und Dynamik in der Folge der Einführung des neuen Werkstoffs Metall erscheinen als logisch und folgerichtig, ohne daß Voraussetzungen, Ursachen und Mechanismen kulturellen Wandels der genaueren Spezifikation bedürften. Anders verhält es sich mit der einschlägigen angelsächsischen Diskussion, die hierzulande bislang nur zögerlich rezipiert wurde. Deren Vertreter verbindet ein starkes Interesse an den soziokulturellen wie sozioökonomischen Folgeerscheinungen der Metallurgie, wobei kulturanthropologische Ansätze zur Anwendung kommen. Andererseits ist in dem mangelnden Rückbezug entsprechender Arbeiten auf die archäologischen Hinterlassenschaften ein deutlicher Mißstand zu erkennen. In dem hier vorgestellten Arbeitsvorhaben soll der Versuch einer Neubewertung der Quellen zur Sozialstruktur des in Frage stehenden Zeitraumes unternommen werden, wobei das besondere Augenmerk kognitiven Aspekten des Umgangs mit dem Werkstoff Metall gilt. Ausgehend von einer metallographischen Untersuchung frühbronzezeitlicher Beile des nordalpinen Raumes soll dabei durch den Rückbezug der zunächst primär technologischen Daten auf den archäologischen Kontext versucht werden, zur Gewichtung der angesprochenen Modelle kulturellen Wandels, insbesondere der Bedeutung des Metalls in den fraglichen Gesellschaften, beizutragen.

Metallzeiten

ANTONIO 2019

Margaret L. Antonio, Ziyue Gao, Hannah M. Moots, Ron Pinhasi &

Jonathan K. Pritchard et al., *Ancient Rome, A genetic crossroads of Europe and the Mediterranean*. [science 366 \(2019\), 708–714](#).

[s366-0708-Supplement.pdf](#)

Ancient Rome was the capital of an empire of ≈ 70 million inhabitants, but little is known about the genetics of ancient Romans. Here we present 127 genomes from 29 archaeological sites in and around Rome, spanning the past 12,000 years. We observe two major prehistoric ancestry transitions: one with the introduction of farming and another prior to the Iron Age. By the founding of Rome, the genetic composition of the region approximated that of modern Mediterranean populations. During the Imperial period, Rome's population received net immigration from the Near East, followed by an increase in genetic contributions from Europe. These ancestry shifts mirrored the geopolitical affiliations of Rome and were accompanied by marked interindividual diversity, reflecting gene flow from across the Mediterranean, Europe, and North Africa.

Margaret L. Antonio, Ziyue Gao, Hannah M. Moots, Michaela Lucci, Francesca Candilio, Susanna Sawyer, Victoria Oberreiter, Diego Calderon, Katharina Devitofranceschi, Rachael C. Aikens, Serena Aneli, Fulvio Bartoli, Alessandro Bedini, Olivia Cheronet, Daniel J. Cotter, Daniel M. Fernandes, Gabriella Gasperetti, Renata Grifoni, Alessandro Guidi, Francesco La Pastina, Ersilia Loreti, Daniele Manacorda, Giuseppe Matullo, Simona Morretta, Alessia Nava, Vincenzo Fiocchi Nicolai, Federico Nomi, Carlo Pavolini, Massimo Pentiricci, Philippe Pergola, Marina Piranomonte, Ryan Schmidt, Giandomenico Spinola, Alessandra Sperduti, Mauro Rubini, Luca Bondioli, Alfredo Coppa, Ron Pinhasi & Jonathan K. Pritchard

WADE 2019

Lizzie Wade, *Immigrants from the Middle East shaped Rome*. [science 366 \(2019\), 673](#).

Genetic history of the city finds little European DNA at the height of the imperial period.

That diversity increased even more as Rome became an empire. Between 27 B.C.E. and 300 C.E., the city was the capital of an empire of 50 million to 90 million people, stretching from North Africa to Britain to the Middle East. Its population grew to more than 1 million people. The genetic “diversity was just overwhelming,” Pinhasi says.

Methoden

PERNICKA 2018

Ernst Pernicka, *Science versus Archaeology? The Case of the Bernstorff Fakes*. [Metalla 24 \(2018\), 73–80](#).

The founder of prehistoric archaeology in Germany, Rudolf Virchow, actually regarded prehistoric archaeology as a scientific discipline. Accordingly, in Vienna the prehistoric cultures including the inds from Hallstatt are displayed in the Museum of Natural History while Greek and Roman statuary art is found in the opposite building of the Museum of Art History.

Although scientific methods are frequently applied in archaeology and are often considered as indispensable, their results do not always agree with archaeological expectations. This can usually be resolved by detailed discussions and by acknowledging the potentials and limitations of the different approaches. To do this it is necessary to accept the competence and experience of each other and, foremost, accept and understand the different methodologies. Here a case is presented, in which

such a conundrum could in principle be solved but archaeological arguments are given a priori more weight and discomfiting scientific results are thus suppressed. The case deals with a number of decorated gold foils and pieces of amber that were found near a Late Bronze Age structure at the hamlet of Bernstorf near the small town of Kranzberg, Lkr. Freising, in Bavaria. They were interpreted as clear evidence for contacts between Mycenae and Bavaria in the Late Bronze Age and it was suggested that the gold derives from Egypt. It was also maintained that this indeed would corroborate the widely accepted hypothesis of an “amber road” and a link between the Mediterranean cultures and Central Europe. Analyses of the Bernstorf gold showed it to be exceptionally pure which is not only unknown in natural gold but also in all prehistoric gold objects hitherto analyzed. It was therefore concluded that the inds from Bernstorf were made from modern gold foil, which is supported by radiocarbon dates of soil intentionally enveloping an amber “seal” containing gold foil of similar composition. However, this unavoidable conclusion is dismissed by some archaeologist, claiming that “mere chemical analysis” and “a chemist” cannot decide on the authenticity of an object and that archaeological reasoning has to be given priority.

Keywords: Late Bronze Age | Bernstorf | gold | fraud

Mittelalter

ALTHOFF 2000

Gerd Althoff, *Die Ottonen, Königsherrschaft ohne Staat*. (Stuttgart 2013).

Das 10. Jahrhundert unter der Königsherrschaft der Ottonen hat im Geschichtsbewusstsein der Deutschen lange Zeit einen besonderen Platz eingenommen. Sie galten als Anfang und zugleich als ein früher Höhepunkt der Geschichte der Deutschen.

Seitdem die nationale Perspektive in den Hintergrund getreten ist, erschließt die Forschung die Eigenart ottonischen Königtums zunehmend als “Herrschaft ohne Staat”. Nicht Ämter, Verwaltung und Schriftlichkeit bestimmten die Herrschaftspraxis der Könige im 10. Jahrhundert, sondern mündliche Verfahren der Konsensstiftung und Willensbildung, rituelle Akte der Herrschaftsrepräsentation und paraliturgische Demonstrationen ihres Gottesgnadentums. Dieses Buch macht diese neuen Forschungsperspektiven in einer chronologisch aufgebauten Darstellung der ottonischen Geschichte sichtbar.

Mittelpaläolithikum

RODRÍGUEZ-HIDALGO 2019

A. Rodríguez-Hidalgo et al., *The Châtelperronian Neanderthals of Cova Foradada (Calafell, Spain) used imperial eagle phalanges for symbolic purposes*. *Science Advances* 5 (2019), eaax1984. DOI:10.1126/sciadv.aax1984.

Evidence for the symbolic behavior of Neanderthals in the use of personal ornaments is relatively scarce. Among the few ornaments documented, eagle talons, which were presumably used as pendants, are the most frequently recorded. This phenomenon appears concentrated in a specific area of southern Europe during a span of 80 thousand years. Here, we present the analysis of one eagle pedal phalange recovered from the Châtelperronian layer of Foradada Cave (Spain). Our

research broadens the known geographical and temporal range of this symbolic behavior, providing the first documentation of its use among the Iberian populations, as well as of its oldest use in the peninsula. The recurrent appearance of large raptor talons throughout the Middle Paleolithic time frame, including their presence among the last Neanderthal populations, raises the question of the survival of some cultural elements of the Middle Paleolithic into the transitional Middle to Upper Paleolithic assemblages and beyond.

A. Rodríguez-Hidalgo, J.I. Morales, A. Cebrià, L. A. Courtenay, J.L. Fernández-Marchena, G. García-Argudo, J. Marín, P. Saladié, M. Soto, J.-M. Tejero & J.-M. Fullola

Physik

CANALE 2019

L. Canale, J. Comtet, A. Niguès, C. Cohen, C. Clanet, A. Siria & L. Bocquet, *Nanorheology of Interfacial Water during Ice Gliding*. [Physical Review X 9 \(2019\), 41025](#). DOI:10.1103/PhysRevX.9.041025.

The slipperiness of ice is an everyday-life phenomenon, which, surprisingly, remains controversial despite a long scientific history. The very small friction measured on ice is classically attributed to the presence of a thin self-lubricating film of meltwater between the slider and the ice. But while the macroscale friction behavior of ice and snow has been widely investigated, very little is known about the interfacial water film and its mechanical properties. In this work, we develop a stroke-probe force measurement technique to uncover the microscopic mechanisms underlying ice lubrication. We simultaneously measure the shear friction of a bead on ice and quantify the in situ mechanical properties of the interfacial film, as well as its thickness, under various regimes of speed and temperature. In contrast with standard views, meltwater is found to exhibit a complex viscoelastic rheology, with a viscosity up to 2 orders of magnitude larger than pristine water. The unconventional rheology of meltwater provides a new, consistent, rationale for ice slipperiness. Hydrophobic coatings are furthermore shown to strongly reduce friction due to a surprising change in the local viscosity, providing an unexpected explanation for waxing effects in winter sports. Beyond ice friction, our results suggest new avenues towards self-healing lubricants to achieve ultralow friction.

Keywords: Fluid Dynamics | Materials Science | Soft Matter

Politik

ERHARD 1957

Ludwig Erhard, *Wohlstand für Alle*. (Düsseldorf ⁸1964).

Die vorliegende 8. Auflage von 1964 ist die letzte von Ludwig Erhard autorisierte Fassung.

Story or Book

POLS 2019

Hans Pols, *Undercover in the asylum*. [science 366 \(2019\), 697](#).

A defining antipsychiatry text comes under fire.

The Great Pretender: The Undercover Mission That Changed Our Understanding of Madness. Susannah Cahalan. Grand Central Publishing, 2019. 400 pp.

Rosenhan died in 2012 and was not interviewed for the book, but using his notes and 200 pages of an unpublished manuscript he had prepared on the experiment (secured from former colleagues), diaries (secured from his son), interviews with former associates and research assistants, and patient records, she discovers that he embellished the experience of his own committal.

Cahalan could not find any trace of the six remaining pseudopatients, if indeed there were six others. (Rosenhan, in one of his notes, indicated that one of the volunteers had himself committed on four separate occasions.) His notes about these individuals were sparse—or in some cases entirely absent—and not even an eye-watering advance from a publisher was enough to get him to finish what would surely have been a best-selling book about his experiment.