

## References

### Aktuell

#### HOPLEY 2021

Philip Hopley, Pieter Vermeesch, Randall Parrish & Alfred Latham, *Clusters of flowstone ages are not supported by statistical evidence.* [nature 594 \(2021\), e10.](#)

We do not claim that the data follow a normal distribution; here we use the hypothesis test to argue that if the dataset is too small to reject normality, then it is too small to prove multimodality. By manually selecting an inappropriately narrow kernel bandwidth (of 30,000 years instead of the default 320,000 years) and histogram bin width, the authors have created six ‘phantom peaks’ of questionable scientific value.

#### LEWIS 2021

Dyani Lewis, *Does vaccinating adults stop kids from spreading covid too?* [nature 594 \(2021\), 312.](#)

Mass vaccination drives are yielding mixed data on the extent to which adult vaccination protects children.

#### MAXMEN 2021

Amy Maxmen & Smriti Mallapaty, *The Covid lab-leak hypothesis, What scientists do and don't know.* [nature 594 \(2021\), 313–315.](#)

Nature examines arguments that the coronavirus SARSCoV2 escaped from a lab in China, and the science behind them.

#### PICKERING 2021

Robyn Pickering et al., *Reply to: Clusters of flowstone ages are not supported by statistical evidence.* [nature 594 \(2021\), e11.](#)

There are no fossil-bearing sediments dating to these time windows, and the early hominin fossil record documented in the Cradle of Humankind is thus highly punctuated and restricted to dry phases. We present our results as a framework within which further research can test our hypothesis. Additionally, although the speleothems delineate clear gaps in the fossil record, they hold considerable potential as palaeoclimate archives of periods for which other Southern Hemisphere records are rare: again, only further research into these flowstone peaks can test their validity.

Robyn Pickering, Andy I. R. Herries, Jon D. Woodhead, John C. Hellstrom, Helen E. Green, Bence Paul, Terrence Ritzman, David S. Strait, Benjamin J. Schoville & John Hancox

### Amerika

#### WILLERSLEV 2021

Eske Willerslev & David J. Meltzer, *Peopling of the Americas as inferred from ancient genomics.* [nature 594 \(2021\), 356–364.](#)

In less than a decade, analyses of ancient genomes have transformed our understanding of the Indigenous peopling and population history of the Americas. These studies have shown that this history, which began in the late Pleistocene epoch and continued episodically into the Holocene epoch, was far more complex than previously thought. It is now evident that the initial dispersal involved the movement from northeast Asia of distinct and previously unknown populations, including some for whom there are no currently known descendants. The first peoples, once south of the continental ice sheets, spread widely, expanded rapidly and branched into multiple populations. Their descendants—over the next fifteen millennia—experienced varying degrees of isolation, admixture, continuity and replacement, and their genomes help to illuminate the relationships among major subgroups of Native American populations. Notably, all ancient individuals in the Americas, save for later-arriving Arctic peoples, are more closely related to contemporary Indigenous American individuals than to any other population elsewhere, which challenges the claim—which is based on anatomical evidence—that there was an early, non-Native American population in the Americas. Here we review the patterns revealed by ancient genomics that help to shed light on the past peoples who created the archaeological landscape, and together lead to deeper insights into the population and cultural history of the Americas.

## Anthropologie

GIBBONS 2021

Ann Gibbons. [science](#) **372** (2021), 1251–1252.

Their Y chromosomes were also similar and came from a modern human ancestor, like those of the only three other male Neanderthal genomes known.

ZACHAROPOULOS 2021

George Zacharopoulos, Francesco Sella & Roi Cohen Kadosh, *The impact of a lack of mathematical education on brain development and future attainment*. [PNAS](#) **118** (2021), e2013155118.

[pnas118-e2013155118-Supplement.pdf](#)

Formal education has a long-term impact on an individual's life. However, our knowledge of the effect of a specific lack of education, such as in mathematics, is currently poor but is highly relevant given the extant differences between countries in their educational curricula and the differences in opportunities to access education. Here we examined whether neurotransmitter concentrations in the adolescent brain could classify whether a student is lacking mathematical education. Decreased  $\gamma$ -aminobutyric acid (GABA) concentration within the middle frontal gyrus (MFG) successfully classified whether an adolescent studies math and was negatively associated with frontoparietal connectivity. In a second experiment, we uncovered that our findings were not due to preexisting differences before a mathematical education ceased. Furthermore, we showed that MFG GABA not only classifies whether an adolescent is studying math or not, but it also predicts the changes in mathematical reasoning  $\approx 19$  mo later. The present results extend previous work in animals that has emphasized the role of GABA neurotransmission in synaptic and network plasticity and highlight the effect of a specific lack of education on MFG GABA concentration and learning-dependent plasticity. Our findings reveal the reciprocal effect between brain development and education and demonstrate the negative consequences of a specific lack of education during adolescence on brain plasticity and cognitive functions.

Keywords: mathematical education | GABA | plasticity | middle frontal gyrus

**Significance:** Our knowledge of the effect of a specific lack of education on the brain and cognitive development is currently poor but is highly relevant given differences between countries in their educational curricula and the differences in opportunities to access education. We show that within the same society, adolescent students who specifically lack mathematical education exhibited reduced brain inhibition levels in a key brain area involved in reasoning and cognitive learning. Importantly, these brain inhibition levels predicted mathematical attainment  $\approx 19$  mo later, suggesting they play a role in neuroplasticity. Our study provides biological understanding of the impact of the lack of mathematical education on the developing brain and the mutual play between biology and education.

## Archäologie

### BRADY 2016

Liam M. Brady & Amanda Kearney, *Sitting in the gap, Ethnoarchaeology, rock art and methodological openness*. [World Archaeology 48 \(2016\), 642–655](#).

For close to six decades, ethnoarchaeology has studied the present to better understand the past. However, if understanding the past is paramount, then what of the wishes and interests of those with whom we collaborate in the present? This situation raises questions such as who is ethnoarchaeology for, and how might its outcomes be valuable to both researchers and collaborators? We address these issues by focusing on the space in which researchers operate, namely the ‘gap’ between archaeological and Indigenous conceptualizations of the world, and propose methodological openness to help achieve new ways of thinking about ethnoarchaeology. Drawing on our experiences conducting rock art research in Australia and the American Southwest, we describe the complexities that emerged during conversations with Yanyuwa and Zuni elders and how they have helped bridge the methodological ‘gap’ and enrich our research and understanding of rock art.

**Keywords:** Rock art | ethnoarchaeology | agency | affect | Australia | American Southwest

### CHIRIKURE 2016

Shadreck Chirikure, *‘Ethno’ plus ‘archaeology’, What’s in there for Africa(ns)?* [World Archaeology 48 \(2016\), 693–699](#).

This paper is a commentary on the Debates in World Archaeology issue for December 2016.

### CUNNINGHAM 2016

Jerimy J. Cunningham & Scott MacEachern, *Ethnoarchaeology as slow science*. [World Archaeology 48 \(2016\), 628–641](#).

In recent years, the purpose and objectives of ethnoarchaeology have been called into question. In this paper, we propose that ethnoarchaeology might best be considered a form of ‘slow science’ that works to counterbalance ‘big science/fast science’ approaches in archaeology. We consider the interpretative challenges facing archaeology and the risks posed by a shift to fast science approaches that emphasize large-scale, strategic and analytically focused ‘big data’ analyses. We draw on recent literatures that define ‘désexcellence’ and ‘slow science’ approaches, which forefront ethically driven and collaborative research, and suggest that ethnoarchaeology might be well positioned to redefine itself as a form of slow science. Doing so, however, requires redefining ethnoarchaeology’s field objectives and its relations to research subjects.

Keywords: Ethnoarchaeology | slow science | Africa | analogy | big science

GONZÁLEZ-RUIBAL 2016

Alfredo González-Ruibal, *Ethnoarchaeology or simply archaeology?* [World Archaeology 48 \(2016\), 687–692.](#)

In this comment I argue that ethnoarchaeology is not the only means for an archaeological engagement with living traditional communities. I suggest that some practices can be better labelled ‘archaeology of the present’, due to their lack of interest in providing analogical frameworks of inspiration for archaeology. Instead, the archaeology of the present aims to better understand living societies by using archaeological methods and theories. Rather than pitting one sub-discipline against the other, however, I suggest that they are both necessary and complementary.

Keywords: Archaeology of the contemporary past | archaeology of the present | ethnoarchaeology | postcolonial theory | analogy

HAMILAKIS 2016

Yannis Hamilakis, *Decolonial archaeologies, From ethnoarchaeology to archaeological ethnography.* [World Archaeology 48 \(2016\), 678–682.](#)

HAMON 2016

Caroline Hamon, *Debates in ethnoarchaeology today, A new crisis of identity or the expression of a vibrant research strategy?* [World Archaeology 48 \(2016\), 700–704.](#)

Keywords: Ethnoarchaeology | self-criticism | analogy | ethics

KAMP 2016

Kathryn A. Kamp & John C. Whittaker, *Ethnoarchaeology, critic, consolidator and contributor.* [World Archaeology 48 \(2016\), 674–677.](#)

LYONS 2016

Diane Lyons & Joanna Casey, *It’s a material world, The critical and on-going value of ethnoarchaeology in understanding variation, change and materiality.* [World Archaeology 48 \(2016\), 609–627.](#)

Contemporary ethnoarchaeology has come a long way from material correlates and ‘fleshing out the past’. This paper re-introduces ethnoarchaeology and opens a debate on its role in archaeology today. We summarize the role ethnoarchaeology has in developing, testing and building archaeological interpretation, and argue for its continuing importance in the wider discipline. This critical role further produces rich ethnographic and material information to think about human-material relationships not necessarily as analogies, but as empirical accounts of how culturally different people engage with the material in complex and variable ways. The study of human-material interaction in daily life and in long-term studies can both challenge and support dominant and emergent theoretical models.

Keywords: Ethnoarchaeology | materiality | optimization theory | humanist and post-humanist approaches | archaeological theory

MCNIVEN 2016

Ian J. McNiven, *Ethnoarchaeology, epistemology, ethics.* [World Archaeology 48 \(2016\), 683–686.](#)

## POLITIS 2016

Gustavo G. Politis, *The role and place of ethnoarchaeology in current archaeological debate*. [World Archaeology 48](#) (2016), 705–709.

Keywords: Ethnoarchaeology | archaeological theory | analogy

## PRATAP 2016

Ajay Pratap, *Assessing Ethnoarchaeology's Contemporary Relevance*. [World Archaeology 48](#) (2016), 710–713.

## SILLAR 2016

Bill Sillar & Gabriel Ramón Joffré, *Using the present to interpret the past, The role of ethnographic studies in Andean archaeology*. [World Archaeology 48](#) (2016), 656–673.

Within Andean research it is common to use ethnographic analogies to aid the interpretation of archaeological remains, and ethnographers and archaeologists have developed shared research in technology, material culture and material practice. Although most of this research does not follow the detailed recording methods of spatial patterning envisioned in earlier formulations of ethnoarchaeology, it has had a profound effect on how archaeology in the region has been interpreted. This paper uses examples from the study of pottery production to address earlier debates about the use of ethnographic analogy, discusses the dangers of imposing an idealized or uniform vision of traditional Andean societies onto earlier periods ('Lo Andino') but stresses the benefits of combining ethnographic and archaeological research to explore continuities and changes in cultural practice and regional variations.

Keywords: South America | ethnoarchaeology | pottery | technology | craft production | 'lo Andino'.

## Bibel

## OLMSTED 2021

David D. Olmsted, *Moabite Stele Translation in Alphabetic Akkadian Shows Early-Jewish/Phoenician Religious Debate Over a Drought (980 BCE)*. (2021).

The Moabite Stele text is a line by line philosophical/religious debate. It was written in Alphabetic Akkadian which was the common trading language of the ancient Mediterranean as evidenced by a growing corpus of texts. The Moabite text is also the earliest archaeological linguistic evidence of Jewish (Judahite) culture yet discovered. This is evidenced by its use of the word "Yahweh," its description of Ba'al as an opponent, and its developing legalistic framework evidenced by using the word "sin." Additionally, it supports in a general way the exodus tradition out of Egypt through Moab. The stele's letter style is a direct descendent of Minoan Linear A in a lineage separate from the Phoenician and Philistine letter styles. This sort of cultural contact could only have occurred earlier in Egypt where the Minoans were trading. The Stele's Jewish / Phoenician debate foreshadows the conflict between Elijah and Phoenician born Queen Jezebel during the next drought of 840 BCE. Yahu (short form of Yahweh) is mentioned in all its linguistic variants by both sides of the debate as YH, IH, EH, I', and EA. Yahu is not unique to the Jewish tradition as it is also found in most other Alphabetic Akkadian texts throughout the Mediterranean. Also mentioned in the Moabite Stele are the deities Hu, Su, Ayu, Atu, Ba'al, and Alu.

TOV 1992

Emanuel Tov, *Textual Criticism of the Hebrew Bible*. (Assen <sup>2</sup>2001).

## Kupfer

STÖLLNER 2013

Thomas Stöllner et al., *Zinn und Kupfer aus dem Osten Kasachstans, Ergebnisse eines deutsch-kasachischen Projektes 2003–2008*. In: THOMAS STÖLLNER & ZAJNOLLA SAMAŠEV (Hrsg.), *Unbekanntes Kasachstan – Archäologie im Herzen Asiens, Katalog der Ausstellung des Deutschen Bergbau-Museums Bochum vom 26. Januar bis zum 30. Juni 2013*. (Bochum 2013), 357–382.

Eastern Kazakhstan is seen as an important provider of tin and other metals during the Bronze Age for a long time now. However, Kazakhstan has not been included into further considerations concerning the tin distribution of the Old World, unlike Central Asia and smaller deposits in the Middle East; completely unjustified, for there being tin bronzes here and in the adjoining Siberian cultures (Okunev, Karakol', Elunino, Krotovo-Samus) at an early stage. They became an integral part of the metallic material during the 2nd millennium B.C.

A research project, concerning this topic, was organized from the Deutsche Bergbau-Museum and the Ruhr-Universität Bochum in the years of 2003-2008 together with Kazakh partners. This essay summarizes the research of the tin- and copper pits of the Bronze Age, the metallurgic hubs as well as metal analyses on Eastern Kazakh metals, which delivered information about possible trading relations. The tin pit complex of Askaraly in the Delgebetej-mountains can be reported as a special result: Pits, simultaneous burial grounds and settlements with tin ore processing were detected in that area.

Ostkasachstan wird schon seit langem als bedeutender Lieferant von Zinn und anderen Metallen der Bronzezeit angesehen. Dennoch wurde Kasachstan, anders als Mittelasien und kleinere Lagerstätten des Mittleren Ostens, kaum in weitergehende Betrachtungen über die Zinnversorgungen der Alten Welt mit einbezogen; ganz zu Unrecht, tauchen doch hier und in den angrenzenden sibirischen Kulturen (Okunev, Karakol', Elunino, Krotovo-Samus) Zinnbronzen schon sehr früh auf. Sie werden ab dem frühen 2. Jt. v. Chr. zum festen Bestandteil der metallischen Werkstoffe. Dieser Thematik ging ein Forschungsprojekt nach, das zwischen 2003 und 2008 vom Deutschen Bergbau-Museum und der Ruhr-Universität Bochum zusammen mit kasachischen Partnern durchgeführt wurde. Dieser Artikel berichtet über die Forschungen zu bronzzeitlichen Zinn- und Kupferbergwerken, über metallurgische Zentren sowie über Metalluntersuchungen an ostkasachischen Metallen, die Auskunft über die mögliche Handelsverbindungen geben. Als besonderes Ergebnis kann der Zinnbergbaukomplex von Askaraly im Delgebetej-Gebirge festgehalten werden: Dort wurden Bergbaue, zeitgleiche Gräberfelder und Siedlungen mit Zinnerzverarbeitung nachgewiesen.

Thomas Stöllner, Zejnolla Samašev, Sergej Berdenov †, Jan Cierny †, Monika Doll, Jennifer Garner, Anton Gontscharov, Alexander Gorelik, Andreas Hauptmann, Rainer Herd, Galina A. Kušè, Viktor Merz, Torsten Riese, Beate Sikorski und Benno Zickgraf

## Methoden

ENSERINK 2021

Martin Enserink, *Biologist blows whistle on prominent co-author. science* **372** (2021), 1250–1251.

When inquiries went nowhere, Ken Thompson decided to publicly disavow his first paper.

Thompson suspects UG may have been reluctant to investigate because Newmaster is an important asset. His research has generated more than \$7 million in funding, according to UG's website; Newmaster also founded the NHP Alliance, which aims to improve authentication processes for natural health products such as herbal supplements and receives major industry funding.

## Politik

STENDERA 2021

Pia Stendera, *Gedenkkultur in Halle, Kurz bevor die Limousinen anrollen. taz.de* **2021**, June 4.