

References

Aktuell

DAGAN 2021

Noa Dagan & Noam Barda et al., *BNT162b2 mRNA Covid-19 Vaccine in a Nationwide Mass Vaccination Setting*. [New England Journal of Medicine \(2021\), preprint, 1–12. DOI:10.1056/NEJMoa2101765.](#)

This study in a nationwide mass vaccination setting suggests that the BNT162b2 mRNA vaccine is effective for a wide range of Covid-19–related outcomes, a finding consistent with that of the randomized trial.

Noa Dagan, Noam Barda, Eldad Kepten, Oren Miron, Shay Perchik, Mark A. Katz, Miguel A. Hernán, Marc Lipsitch, Ben Reis and Ran D. Balicer

RASMUSSEN 2021

Angela L. Rasmussen & Saskia V. Popescu, *SARS-CoV-2 transmission without symptoms*. [science 371 \(2021\), 1206–1207. DOI:10.1126/science.abf9569.](#)

[DOI:10.1126/science.abf9569.](#)

Symptomless transmission silently drives viral spread and is key to ending the pandemic.

Anthropologie

MACINTOSH 2016

Alison A. Macintosh, Ron Pinhasi & Jay T. Stock, *Early Life Conditions and Physiological Stress following the Transition to Farming in Central/Southeast Europe, Skeletal Growth Impairment and 6000 Years of Gradual Recovery*. [PLoS ONE 11 \(2016\), e148468. DOI:10.1371/journal.pone.0148468.](#)

[DOI:10.1371/journal.pone.0148468.](#)

Early life conditions play an important role in determining adult body size. In particular, childhood malnutrition and disease can elicit growth delays and affect adult body size if severe or prolonged enough. In the earliest stages of farming, skeletal growth impairment and small adult body size are often documented relative to hunter-gatherer groups, though this pattern is regionally variable. In Central/Southeast Europe, it is unclear how early life stress, growth history, and adult body size were impacted by the introduction of agriculture and ensuing long-term demographic, social, and behavioral change. The current study assesses this impact through the reconstruction and analysis of mean stature, body mass, limb proportion indices, and sexual dimorphism among 407 skeletally mature men and women from foraging and farming populations spanning the Late Mesolithic through Early Medieval periods in Central/Southeast Europe (≈ 7100 calBC to 850 AD). Results document significantly reduced mean stature, body mass, and crural index in Neolithic agriculturalists relative both to Late Mesolithic hunter-gatherer-fishers and to later farming populations. This indication of relative growth impairment in the Neolithic, particularly among women, is supported by existing evidence of high developmental stress, intensive physical activity, and variable access to animal

protein in these early agricultural populations. Among subsequent agriculturalists, temporal increases in mean stature, body mass, and crural index were more pronounced among Central European women, driving declines in the magnitude of sexual dimorphism through time. Overall, results suggest that the transition to agriculture in Central/Southeast Europe was challenging for early farming populations, but was followed by gradual amelioration across thousands of years, particularly among Central European women. This sex difference may be indicative, in part, of greater temporal variation in the social status afforded to young girls, in their access to resources during growth, and/or in their health status than was experienced by men.

Bibel

DERSHOWITZ 2021

Idan Dershowitz, *The Valediction of Moses, New Evidence on the Shapira Deuteronomy Fragments*. [Zeitschrift für die Alttestamentliche Wissenschaft](#) **133** (2021), 1–22.

Wilhelm Moses Shapira's infamous Deuteronomy fragments have long been deemed forgeries, with Shapira himself serving as the obvious suspect. I provide new evidence that Shapira did not forge the fragments and was himself convinced of their authenticity. Indeed, the evidence for forgery is illusory. In a companion monograph, I show that the Shapira fragments are not only authentic ancient artifacts but are unprecedented in their significance: They preserve a pre-canonical antecedent of the Book of Deuteronomy.

Keywords: Deuteronomy | Dead Sea Scrolls | DSS | Shapira.

Wilhelm Moses Shapiras berühmte Deuteronomium-Fragmente sind lange Zeit für Fälschungen gehalten worden, wobei zumeist Shapira selbst als Urheber verdächtigt wurde. Ich erbringe neue Nachweise dafür, dass Shapira die Fragmente nicht gefälscht hat, sondern selbst von deren Echtheit überzeugt war. Vielmehr sind die Beweise für eine Fälschung als illusorisch einzuschätzen. In einer Monographie mit kritischen Textausgaben der Shapira-Fragmente weise ich nach, dass diese nicht nur authentische antike Artefakte, sondern beispiellos in ihrer Bedeutung sind: Sie bewahren einen vorkanonischen Vorläufer des Buches Deuteronomium.

FINKELSTEIN 1996

Israel Finkelstein, *The Stratigraphy and Chronology of Megiddo and Beth-Shan in the 12th–11th Centuries B.C.E.* [Tel Aviv: Archaeology](#) **23** (1996), 170–184.

The archaeological evidence from Megiddo and Beth-shan and the results of excavations at other sites in their vicinity show that the history of the Jezreel Valley from the late 13th through the 10th century B.C.E. was much more complex than earlier believed. There are almost no two similar sites; rather each site has its own sequence of occupation. For instance, there is no phase in which all three major mounds on the western margin of the valley – Megiddo, Ta'anach and Yoqne'am – were inhabited at the same time.

Finally, there is no late 11th century B.C.E. destruction level which can be attributed to the Israelite takeover. Rather, there was a peaceful continuation, or reoccupation in the 10th century B.C.E. According to this Low Chronology, a large scale destruction came only in the late 10th century B.C.E., with the devastation of Megiddo VIA, Beth-shan Upper VI, Yoqne'am XVII, Tel Hadar and possibly

Tell Keisan. At least some of these destructions may be assigned to the campaign of Pharaoh Shishak in the year 926 B.C.E.

GERTOUX 2015

Gerard Gertoux, *Abraham and Chedorlaomer, Chronological, Historical and Archaeological Evidence*. ([unpublished 2015](#)).

Historians consider the biblical account about Chedorlaomer's campaign against Sodom as a pious fiction (Gn 14:1-20). However, the Gospels refer to it as a real story, which is even described as essential to faith (Hb 6:20-7:2). According to the chronology drawn from the Masoretic text, Abraham's departure from Ur and his arrival in Canaan (1963 BCE) when Abraham was 75 years old (Gn 12:4-5). The revolt of Transjordan kings against Chedorlaomer occurred in the 13th year of his dominion and the following year (1954 BCE) he was slaughtered by Abraham (Gn 14:4-17). A chronological reconstruction based on synchronisms shows that among the dynasties from Sumerian lists the 3rd and last Elamite king of the Awan I dynasty was Kudur-Lagamar (1990-1954). Ashurbanipal, after his conquest of Elam and Susa ransacking, exposed (in 646 BCE) the capture of the goddess Nanaya (in Uruk) by Kudur-Lagamar which occurred around 1300 years earlier (in 1968 BCE). The Spartoli tablets (c. 650 BCE) describe this famous attack of Babylonia by a coalition of evil kings named Kudur-KUKUmal, king of Elam, Tud.ula, king of Gutium, and Eri-Aku [king of Larsa]. This coalition of kings (Sumer, Larsa, Gutium) united under Kutur-Lagamar is quite likely, because all these kings were vassals or allies of the king of Elam (and Akkad) at that time, moreover, they came from neighbouring regions. One can notice that Puzur-InŪuŪinak, a powerful king of Elam, founded a new dynasty which has been classified as belonging to the kings of Akkad, which explains the gap of about 30 years between the end of the Elamite dynasty of Awan II and the beginning of the dynasty of ěimaŪki. After the destruction of Ur by Kindadu, which marked the end of Ur III, the dynasty of Awan I (postponed) just after the dynasty of Ur I instead of Ur III. Chedorlaomer's route and the description of his actions show that this king came to this region near Egypt in order to maintain control over this new land trade route. This ambitious project had to have worried Amenemhat I (1975-1946) because southern Canaan was a big source of supply. In order to protect Egypt, Amenemhat I built the "Walls of the Ruler". In addition, first Execration Texts against Canaan and western Syria appear at this time. One can notice that the area of Sodom is called ěutu[m] in execration texts (then Moab after 1800 BCE).

KLAWANS 2021

Jonathan Klawans, *The Shapira Fragments, An Artifact of 19th-Century Jewish Christianity*. [Bible History Daily 2021, Mar. 18](#).

ROLLSTON 2021

Christopher Rollston, *Dějà vu all over Again, The Antiquities Market, the Shapira Strips, Menahem Mansoor, and Idan Dershowitz*. [unknown \(2021\), preprint, 1–9](#).

ROSENSTOCK 2014

Eva Rosenstock, *Ringen mit dem Unsichtbaren, Zur Entstehungsgeschichte einer měglichen medizinischen Deutung von Jakobs Verletzung am Jabbok*. [Sudhoffs Archiv – Zeitschrift fŪr Wissenschaftsgeschichte 98 \(2014\), 164–181](#).

A discrepancy of word choice can be noted in the account of Jacob's wrestling at the river Jabbok (Gen. 32, 23–33) if we compare the Hebrew version on one hand and the Greek and Latin versions on the other. The lesion that incurred Jacob a permanent limp and constitutes the dietary ban on the sciatic nerve is described as a luxation or strain yq' of the hip joint bkw yrkw in the Hebrew bible, whereas Septuagint, Vetus Latina and Vulgata use narkao and emarceo or obstipesco as well as $\text{to platos tou merou}$ and $\text{latitudinem faemoris}$. They thus suggest hints of a painful sensory deficit felt on the outside of the thigh and a paralysis. In a synopsis of knowledge of sciatica in antiquity and modern knowledge on nerve root irritation and compression syndromes, it can be argued that the originators of the Septuagint and subsequent Greek and Latin translators and authors supported their translations with a diagnosis that we today would call an L5-syndrome with sciatica, sensory deficit, weak foot dorsiflexion and Trendelenburg gait.

WAERZEGGERS 2020

Caroline Waerzeggers, *Changing Marriage Practices in Babylonia from the Late Assyrian to the Persian Period*. [Journal of Ancient Near Eastern History](#) **7** (2020), 101–131.

Based on an analysis of marriage contracts, this paper argues that at the time of the Persian conquest (539 BCE) Babylonians practiced two types of marriage depending on their social status. Non-elite families negotiated different terms of marriage than elite families, in three areas: bridal wealth, household creation, and regulations about adultery and divorce. However, these divergent marriage practices became less pronounced and eventually obsolete in the course of the Persian period. This article first presents the evidence for the two marriage types and then seeks to find an answer, albeit a partial one, to the question why these traditions changed from c. 490 BCE onwards.

Keywords: marriage | social endogamy | dowry | adultery and divorce | pre-marital cohabitation

Kultur

THIEBAUT DE SCHOTTEN 2014

Michel Thiebaut de Schotten, Laurent Cohen, Eduardo Amemiya, Lucia W. Braga & Stanislas Dehaene, *Learning to Read Improves the Structure of the Arcuate Fasciculus*. [Cerebral Cortex](#) **24** (2014), 989–995.

The acquisition of literacy results from an effortful learning process that leads to functional changes in several cortical regions. We explored whether learning to read also leads to anatomical changes within the left intrahemispheric white matter pathways that interconnect these regions. Using diffusion tensor imaging tractography, we compared illiterates with ex-illiterates who learned to read during adulthood and literates who learned to read during their childhood. Literacy related to an increase in fractional anisotropy and a decrease in perpendicular diffusivity in the temporo-parietal portion of the left arcuate fasciculus. The microstructure within this pathway correlated with the reading performance and the degree of functional activation within 2 dominant brain regions involved in reading: The Visual Word Form Area in response to letter strings, and the posterior superior temporal cortex in response to spoken language. Thus, the acquisition of literacy is associated with a reinforcement of left temporo-parietal connections

whose microstructure predicts overall reading performance and the functional specialization of the Visual Word Form Area. This anatomical magnetic resonance imaging marker may be useful to predict developmental reading disorders.

Keywords: diffusion | language | literacy | plasticity | tractography

Mathematik

DYBLE 2021

Mark Dyble, *The evolution of altruism through war is highly sensitive to population structure and to civilian and fighter mortality*. [PNAS 118 \(2021\), e2011142118](#).

[pnas118-e2011142118-Supplement1.pdf](#), [pnas118-e2011142118-Supplement2.txt](#)

The importance of warfare in the evolution of human social behavior remains highly debated. One hypothesis is that intense warfare between groups favored altruism within groups, a hypothesis given some support by computational modeling and, in particular, the work of Choi and Bowles [J.-K. Choi, S. Bowles, *Science* 318, 636–640 (2007)]. The results of computational models are, however, sensitive to chosen parameter values and a deeper assessment of the plausibility of the parochial altruism hypothesis requires exploring this model in more detail. Here, I use a recently developed method to reexamine Choi and Bowles' model under a much broader range of conditions to those used in the original paper. Although the evolution of altruism is robust to perturbations in most of the default parameters, it is highly sensitive to group size and migration and to the lethality of war. The results show that the degree of genetic differentiation between groups (FST) produced by Choi and Bowles' original model is much greater than empirical estimates of FST between hunter-gatherer groups. When FST in the model is close to empirically observed values, altruism does not evolve. These results cast doubt on the importance of war in the evolution of human sociality.

Keywords: altruism | war | population structure | parochial altruism | agent-based modeling

Significance: Many evolutionary theorists have suggested that the human capacity for altruism was forged in war, with cohesive and altruistic groups outcompeting their selfish neighbors. Assessing this “parochial altruism” hypothesis relies largely on computational modeling. Here, I reexamine a well-known model that explores the coevolution of altruism and war. As well as clarifying the importance of factors such as the lethality of war to fighters and civilians, the results show that the evolution of altruism in this model relies on a degree of genetic differentiation between groups that exceeds that seen among huntergatherers. Furthermore, when the model produces a more realistic population structure, altruism does not evolve, casting doubt on the plausibility of the parochial altruism hypothesis.

Neolithikum

MEADOWS 2019

John Meadows, Nils Müller-Scheeßel, Ivan Cheben, Helene Agerskov Rose & Martin Furholt, *Temporal dynamics of Linearbandkeramik houses and settlements, and their implications for detecting the environmental impact of early farming*. [The Holocene 29 \(2019\), 1653–1670](#).

[Holocene29-1653-Supplement.pdf](#)

Long-held ideas concerning early Neolithic Linearbandkeramik (LBK) settlements in central Europe have been thoroughly challenged in recent years, for

example, regarding their internal organisation or the use-life of individual houses. These topics have now also been addressed with the help of large radiocarbon (14C) datasets. In the light of this discussion, we present findings of our ongoing research at Vráble in south-western Slovakia. Intensive prospection by fieldwalking, geophysics and sedimentology, complemented by targeted excavations and archaeobotanical investigations, aims to unravel social and temporal relationships between three adjacent LBK settlements. A total of 23 of the c.300 houses revealed by geophysical prospection have been dated. Bayesian chronological modelling of this dataset, comprising 109 14C ages from 104 samples, indicates that the three LBK settlements at Vráble coexisted, and that overall the LBK settlement lasted for c. 200–300 years. Our results imply a ‘short’ use-life for individual houses (median c.20–30 y), suggesting that relatively few houses were inhabited simultaneously. Our data suggest that the overall LBK population at Vráble might have increased over the course of occupation, but probably never exceeded 200–300 individuals, based on the number of houses that could have been occupied contemporaneously. We compare the Vráble evidence with Bayesian chronologies for other LBK sites, and discuss the implications of these findings for models of population agglomeration and recognising the environmental impact of early farming communities.

Keywords: Bayesian chronological model | collagen preservation | environmental impact | Linearbandkeramik | population | radiocarbon dating

MÜLLER-SCHEESSEL 2021

Nils Müller-Scheeßel, Zuzana Hukelová, John Meadows, Ivan Cheben, Johannes Müller & Martin Furholt, *New burial rites at the end of the Linearbandkeramik in south-west Slovakia*. [Antiquity 95 \(2021\), 65–84](#).

[Antiquity095-0065-Supplement.pdf](#)

The recent discovery of several late Linearbandkeramik (LBK) sites in Central Europe, including Vráble in south-west Slovakia, has revealed evidence for increasing diversity in Neolithic mortuary practices, which may reflect inter-community war and sociopolitical crisis at the end of the LBK. Here, the authors combine osteological and radiocarbon analyses of inhumations from Vráble. Rather than a straightforward sign of inter-community conflict and war, this development reflects a culmination of internal conflict and a diversification in the ritual treatment of human bodies. The emerging variability in LBK methods of manipulating and depositing dead bodies can be interpreted as an experimental approach in how to negotiate social conflicts and community boundaries.

Keywords: Central Europe | Slovakia | Neolithic | Linearbandkeramik | mortuary practice

Ostasien

WANG 2021

Chuan-Chao Wang et al., *Genomic insights into the formation of human populations in East Asia*. [nature 591 \(2021\), 413–419](#).

[n591-0413-Supplement.pdf](#)

The deep population history of East Asia remains poorly understood owing to a lack of ancient DNA data and sparse sampling of present-day people^{1,2}. Here we report genome-wide data from 166 East Asian individuals dating to between 6000 bc and ad 1000 and 46 present-day groups. Hunter-gatherers from Japan, the Amur River Basin, and people of Neolithic and Iron Age Taiwan and the Tibetan Plateau are linked by a deeply splitting lineage that probably reflects a coastal migration during the Late Pleistocene epoch. We also follow expansions during the

subsequent Holocene epoch from four regions. First, hunter-gatherers from Mongolia and the Amur River Basin have ancestry shared by individuals who speak Mongolic and Tungusic languages, but do not carry ancestry characteristic of farmers from the West Liao River region (around 3000 bc), which contradicts theories that the expansion of these farmers spread the Mongolic and Tungusic proto-languages. Second, farmers from the Yellow River Basin (around 3000 bc) probably spread Sino-Tibetan languages, as their ancestry dispersed both to Tibet—where it forms approximately 84% of the gene pool in some groups—and to the Central Plain, where it has contributed around 59–84% to modern Han Chinese groups. Third, people from Taiwan from around 1300 bc to ad 800 derived approximately 75% of their ancestry from a lineage that is widespread in modern individuals who speak Austronesian, Tai–Kadai and Austroasiatic languages, and that we hypothesize derives from farmers of the Yangtze River Valley. Ancient people from Taiwan also derived about 25% of their ancestry from a northern lineage that is related to, but different from, farmers of the Yellow River Basin, which suggests an additional north-to-south expansion. Fourth, ancestry from Yamnaya Steppe pastoralists arrived in western Mongolia after around 3000 bc but was displaced by previously established lineages even while it persisted in western China, as would be expected if this ancestry was associated with the spread of proto-Tocharian Indo-European languages. Two later gene flows affected western Mongolia: migrants after around 2000 bc with Yamnaya and European farmer ancestry, and episodic influences of later groups with ancestry from Turan.

Chuan-Chao Wang, Hui-Yuan Yeh, Alexander N. Popov, Hu-Qin Zhang, Hirofumi Matsumura, Kendra Sirak, Olivia Cheronet, Alexey Kovalev, Nadin Rohland, Alexander M. Kim, Swapan Mallick, Rebecca Bernardos, Dashtseveg Tumen, Jing Zhao, Yi-Chang Liu, Jiun-Yu Liu, Matthew Mah, Ke Wang, Zhao Zhang, Nicole Adamski, Nasreen Broomandkhoshbacht, Kimberly Callan, Francesca Candilio, Kellie Sara Duffett Carlson, Brendan J. Culleton, Laurie Eccles, Suzanne Freilich, Denise Keating, Ann Marie Lawson, Kirsten Mandl, Megan Michel, Jonas Oppenheimer, Kadir Toykan Özdoğan, Kristin Stewardson, Shaoqing Wen, Shi Yan, Fatma Zalzal, Richard Chuang, Ching-Jung Huang, Hana Loo, Chung-Ching Shiung, Yuri G. Nikitin, Andrei V. Tabarev, Alexey A. Tishkin, Song Lin, Zhou-Yong Sun, Xiao-Ming Wu, Tie-Lin Yang, Xi Hu, Liang Chen, Hua Du, Jamsranjav Bayarsaikhan, Enkhbayar Mijiddorj, Diimaajav Erdenebaatar, Tumur-Ochir Iderkhangai, Erdene Myagmar, Hideaki Kanzawa-Kiriyama, Masato Nishino, Ken-ichi Shinoda, Olga A. Shubina, Jianxin Guo, Wangwei Cai, Qiongying Deng, Longli Kang, Dawei Li, Dongna Li, Rong Lin, Nini, Rukesh Shrestha, Ling-Xiang Wang, Lanhai Wei, Guangmao Xie, Hongbing Yao, Manfei Zhang, Guanglin He, Xiaomin Yang, Rong Hu, Martine Robbeets, Stephan Schiffels, Douglas J. Kennett, Li Jin, Hui Li, Johannes Krause, Ron Pinhasi & David Reich