

References

Bibel

BÁNYAI 2023

Michael Bányai, *Merenptah and Amenmesse, Egyptian Rumors Concerning the Exodus*. In: EREZ BEN-YOSEF & IAN W. N. JONES (Hrsg.), “*And in Length of Days Understanding*” (*Job 12:12*), *Essays on Archaeology in the Eastern Mediterranean and Beyond in Honor of Thomas E. Levy*. Interdisciplinary Contributions to Archaeology ([Cham 2023](#)), 1013–1046.

The hypothesis at the core of this paper was published in a much larger work by the author in JEgH 12 2019. Due to its focus on Egyptological matters, that article reached a small circle of specialists, and its ramifications for the biblical scholarship have largely gone unnoticed. The present paper fills this gap – pointing as often as possible to the more extensive discussion of the previous paper’s evidence.

Recent archaeological evidence invalidates previous chronological solutions for the reign of Amenmesse: edging him between the reigns of Merenptah and Sethos II or allowing a partial overlap between Sethos II and Amenmesse’s early reigns. His reign’s time and geographical base must be rethought and identified within the regnal period of Merenptah.

This reconstruction looks strikingly similar to the late narratives (Manetho, Apion, Potter’s Oracle, The Lamb Oracle) concerning a revolt, Merenptah’s flight to Ethiopia, his return to Egypt, and his defeat of the contender. The late narratives’ association of Amenmesse’s rule with the Israelites is understandable against the historical background of a stock of Israelite prisoners brought by Merenptah to Egypt from his previous campaigns.

Due to this historical context, the literature of the time offers several hidden references to Israel. The Tale of Two Brothers, the political manifesto of the revolt, is an etiologal story of the relations between Egypt and Israel using eponymic patterns as in the story of Danaos and Aigyptos. A Ramses V dated parodistic retelling of the tale, pChassinat III, introduces allusions later picked up by Manetho’s characters of Moses and Joseph (Barbotin, *Revue d’égyptologie* 50:5–26, 1999; Bányai, *J Egypt Hist* 12:36–103, 2019, n. 153).

A discussion of the literary material from this period demonstrates the necessity of a new approach to Early Israel and its possible relations to Retenu, a term designating an Asiatic neighbor of Egypt.

Keywords: Early Israel | Retenu | Merenptah | Amenmesse | Israel Stele | pHarris I | Tale of Two Brothers

BEN-YOSEF 2023

EREZ BEN-YOSEF & IAN W. N. JONES (Hrsg.), “*And in Length of Days Understanding*” (*Job 12:12*), *Essays on Archaeology in the Eastern Mediterranean and Beyond in Honor of Thomas E. Levy*. Interdisciplinary Contributions to Archaeology ([Cham 2023](#)).

BRUINS 2023

Hendrik J. Bruins, *Time and Paradigm at Tel Megiddo, David, Shoshenq I, Hazael and Radiocarbon Dating*. In: EREZ BEN-YOSEF & IAN W. N. JONES (Hrsg.), “And in Length of Days Understanding” (Job 12:12), *Essays on Archaeology in the Eastern Mediterranean and Beyond in Honor of Thomas E. Levy*. Interdisciplinary Contributions to Archaeology (Cham 2023), 811–837.

The tenth century BCE synchronism between Pharaoh Shoshenq I, the founder of the 22nd Dynasty in Egypt, and the biblical Shishak is widely accepted. However, various paradigms exist regarding the understanding of biblical texts and their possible association with archaeological strata. The nineteenth century Wellhausen paradigm theorized that the Law is younger than the Prophets, thereby initiating a Low Chronology and mythologizing much of Israel’s biblical history. Thomas Levy advocated throughout his career an open-minded approach concerning biblical texts and archaeology in the southern Levant. The present paper focuses on the radiocarbon dating results of Tel Megiddo, an Iron Age site of major importance and its possible relationships with biblical texts. The paper evaluates the influence of various scholarly paradigms on chronology, followed by an assessment of Tel Megiddo’s radiocarbon dates, using the latest IntCal 20 calibration curve. Based on nuclear physics, ¹⁴C dating results provide inherently unbiased numbers, unaffected by human paradigms and literary theories, whether liberal, conservative or postmodern. The radiocarbon evaluations of Tel Megiddo do not support chronological correlation of a destruction layer with the Shoshenq Campaign, neither the Stratum VIA destruction (former Finkelstein paradigm), nor the Stratum VA-IVB destruction (Yadin and Mazar paradigm). Stratum VB has two radiocarbon dates covering the tenth century BCE, supporting Yadin, who associated Megiddo V with the United Monarchy of Solomon. However, the destruction layer of Stratum VA-IVB dates to the ninth century BCE, supporting Finkelstein who related this devastation to Hazael’s Campaign. The radiocarbon dating results imply that Megiddo V and VA-IVB cover both the tenth century BCE (United Monarchy) and a large part of the ninth century BCE (Omride Dynasty of the Northern Kingdom of Israel). The historical break between the United Monarchy and the Divided Monarchies at Megiddo was apparently not accompanied by a distinct archaeological break. Ceramic studies appear to have difficulties distinguishing between the tenth and the ninth centuries BCE, as judged by the radiocarbon dating results. The stratigraphy and periodization of Megiddo VIA, VB, and VA-IVB should be reassessed in much more detail with radiocarbon dating to sort out the chronology and archaeological history across the tell.

Keywords: Tel Megiddo | Destruction layers | Iron Age | Synchronisms | Biblical associations | Paradigms | Radiocarbon dating

FAUST 2023

Avraham Faust, *Between the Biblical Story and History, Writing an Archaeological History of Ancient Israel*. In: KYLE H. KEIMER & GEORGE A. PIERCE (Hrsg.), *The ancient Israelite world*. Routledge worlds (Abingdon 2023), 67–82.

Even worse is that the archaeology of ancient Israel has the largest archaeological dataset in the world (e.g., Faust and Safrai 2005, 2015, 2022, and references), but it is not used in a way that makes it useful for archaeologists working in other sub-disciplines.

GADOT 2023

Yuval Gadot, Assaf Kleiman & Joe Uziel, *The Interconnections Between Jerusalem and Samaria in the Ninth to Eighth Centuries BCE, Material Culture, Connectivity and Politics*. In: EREZ BEN-YOSEF & IAN W. N. JONES (Hrsg.), “And in Length of Days Understanding” (*Job 12:12*), *Essays on Archaeology in the Eastern Mediterranean and Beyond in Honor of Thomas E. Levy*. Interdisciplinary Contributions to Archaeology ([Cham 2023](#)), 771–786.

The relations between Israel and Judah are often described in contemporary research as extremely unbalanced, with the latter being portrayed as thriving in the shadow of its stronger and more influential northern neighbor, most likely as its vassal. In this study, we examine this common hypothesis from an archaeological perspective, assuming that close relations between the two kingdoms would have stimulated the flow of objects and ideas across the highlands and thus be reflected in the material culture. We suggest that the archaeological record of Jerusalem, the Benjamin Plateau and southern Samaria reflects a low level of connectivity across the highlands in the ninth to eighth centuries BCE prior to the downfall of the Northern Kingdom, thus challenging the conventional understanding of the power relations in this region. In our view, Judah was an independent socio-political entity for most of its existence with Jerusalem as its capital.

Keywords: Jerusalem | Omride dynasty | Israelite kingdom | Kingdom of Judah | Samaria | Material culture | Contact zones

HAYS 2023

Christopher B. Hays, *Death and Afterlife*. In: KYLE H. KEIMER & GEORGE A. PIERCE (Hrsg.), *The ancient Israelite world*. Routledge worlds ([Abingdon 2023](#)), 505–519.

Death and afterlife in ancient Judah is a more complex and interesting topic than many have been accustomed to thinking. The gloom of Sheol and the familial symbolism of the bench tomb dominate the scholarly literature in much the same way that the Priestly and Deuteronomistic authors sought to dominate the biblical literature. Neither archaeological nor biblical nor comparative data allows us to suppose, however, that the reality on the ground was anything other than complex. Right alongside the dominant literary-theological traditions, there existed familial ancestor cults wherever there were the means to maintain them, relecting diverse hopes and mythologies about the afterlife.

The most basic questions involve (1) the distinctiveness of Israelite and Judahite beliefs since various biblical texts assert that Israel’s religion was different from its neighbors; and (2) the degree of unity or diversity within the religious beliefs and practices among the people. Given the nature and extent of the data, it is inevitable that interpretations vary significantly, at least in their major emphases.

Historians of religion had long theorized that Israelite religion included veneration of the dead. In particular, the turn of the 12th century saw great interest in cults of the dead and their relevance to ancient Israel. The description of the dead as weak in the Old Testament was chalked up to a Yahwistic critique of folk religion. This view was challenged in the mid-20th century by various theologians arguing that Israelite religion was, even from its origins, quite distinctive from its environment.

JOOSTEN 2019

Jan Joosten, *Son of God in Wisdom 2:16–18, Between the Hebrew Bible and the New Testament*. In: GARRICK V. ALLEN, KAI AKAGI,

PAUL SLOAN & MADHAVI NEVADER (Hrsg.), *Son of God, Divine Sonship in Jewish and Christian Antiquity*. (Winona Lake 2019), 41–52.

KEIMER 2023

KYLE H. KEIMER & GEORGE A. PIERCE (Hrsg.), *The ancient Israelite world*. Routledge worlds (Abingdon 2023).

KLEIMAN 2023

Assaf Kleiman et al., *Crisis in motion, The final days of Iron Age I Megiddo*. *Levant* (2023), preprint, 1–28. DOI:10.1080/00758914.2023.2230039.

Levant2023.09-Kleiman-Supplement1.docx, Levant2023.09-Kleiman-Supplement2.docx, Levant2023.09-Kleiman-Supplement3.docx

The destruction of Iron I Megiddo in the early 10th century BCE was a momentous event in the history of the southern Levant. It marked an abrupt break in the long cultural development of the Middle and Late Bronze Ages. Despite extensive field research, essential questions related to this event remain unanswered, especially regarding the processes that took place in the city immediately before its destruction. In this article, findings from recent excavations in the southeastern sector of the mound, where a detailed Iron I stratigraphic sequence was explored, are reported. In addition, finds from two nearby areas previously excavated were re-evaluated, focusing mostly on contextual aspects of the osteological data. This study sheds light on the deterioration of the city in the decades preceding its final demise, and suggests that the event was caused by human agents rather than a natural disaster. It also hints that in its last days, Megiddo may have been besieged, which explains the peculiar re-appearance of intra-mural burials at the site. The case of Iron I Megiddo provides a high-resolution snapshot of actions taken by the inhabitants of a Near Eastern city on the eve of a major crisis.

Keywords: Megiddo | Iron I | destruction | crisis behaviour | territorial kingdoms

Assaf Kleiman, Erin Hall, Rachel Kalisher, Zachary C. Dunseth, Lidar Sapir-Hen, Robert S. Homsher, Matthew J. Adams & Israel Finkelstein

Klima

HOFMANN 2023

William A. Hofmann, *Seasonal flooding shapes forest–savanna transitions*. *PNAS* **120** (2023), e2312279120.

The finding that alternating drought and waterlogging is hostile to trees is supported by observations from descriptive studies going back decades (11, 13–15). The present study, however, goes beyond description to prediction. What is particularly novel here is the ability to predict the conditions under which hydrology leads to savanna over an entire continent by making use of a hydrological model, combined with the quantitative metric of the double stress.

The insights provided by Mattos et al. (5) make a valuable contribution to the ongoing debate about what controls the distribution of savanna and forest across the vast areas where savanna and forest coexist in a mosaic. On one side of the debate is the argument that the distribution of savanna and forest in the seasonal tropics is largely the consequence of historical factors, and these biomes presently coexist as alternate stable states maintained by positive feedbacks, particularly involving fire (2, 3). The alternative view is that the distribution of savanna and

forest is largely deterministic and controlled by a combination of climate, soils, and hydrology.

MATTOS 2023

Caio R. C. Mattos et al., *Double stress of waterlogging and drought drives forest–savanna coexistence*. *PNAS* **120** (2023), e2301255120.

[pnas120-e2301255120-Supplement.pdf](#)

Forest–savanna boundaries are ecotones that support complex ecosystem functions and are sensitive to biotic/abiotic perturbations. What drives their distribution today and how it may shift in the future are open questions. Feedbacks among climate, fire, herbivory, and land use are known drivers. Here, we show that alternating seasonal drought and waterlogging stress favors the dominance of savanna- like ecosystems over forests. We track the seasonal water- table depth as an indicator of water stress when too deep and oxygen stress when too shallow and map forest/savanna occurrence within this double- stress space in the neotropics. We find that under a given annual precipitation, savannas are favored in landscape positions experiencing double stress, which is more common as the dry season strengthens (climate driver) but only found in waterlogged lowlands (terrain driver). We further show that hydrological changes at the end of the century may expose some flooded forests to savanna expansion, affecting biodiversity and soil carbon storage. Our results highlight the importance of land hydrology in understanding/predicting forest–savanna transitions in a changing world.

Keywords: forest savanna transitions | Amazon | hydrology | tropical ecology

Caio R. C. Mattos, Marina Hirota, Rafael S. Oliveira, Bernardo M. Flores, Gonzalo Miguez- Macho, Yadu Pokhrel & Ying Fan

Significance: Explaining the distribution of vegetation is a long- standing challenge in ecology. In the tropics, forests have been associated with areas of high rainfall and low fire occurrence, while savannas dominate where rainfall is lower, and fire is frequent. However, in many landscapes, both vegetation types coexist, with savanna (forest) pockets occurring within forest (savanna) dominated areas. Using modeling and remote sensing, we show that one mechanism driving this coexistence is hydrology. In areas where the water table varies seasonally from too shallow (waterlogging) to too deep (drought), savannas are favored even if rainfall is high. Considering this mechanism alters our predictions of forest– savanna dynamics under a changing climate.

Kultur

BLÖCHER 2023

Jens Blöcher, Maxime Brami & Joachim Burger et al., *Descent, marriage, and residence practices of a 3,800-year-old pastoral community in Central Eurasia*. *PNAS* **120** (2023), e2303574120.

[pnas120-e2303574120-Supplement.pdf](#)

Our understanding of prehistoric societal organization at the family level is still limited. Here, we generated genome data from 32 individuals from an approximately 3,800- y- old burial mound attributed to the Bronze Age Srubnaya- Alakul cultural tradition at the site of Nepluyevsky, located in the Southern Ural region of Central Eurasia. We found that life expectancy was generally very low, with adult males living on average 8 y longer than females. A total of 35 first- degree, 40 second- degree, and 48 third- degree biological relationships connected 23 of the studied individuals, allowing us to propose a family tree spanning three generations with six brothers at its center. The oldest of these brothers had eight

children with two women and the most children overall, whereas the other relationships were monogamous. Notably, related female children above the age of five were completely absent from the site, and adult females were more genetically diverse than males. These results suggest that biological relationships between male siblings played a structural role in society and that descent group membership was based on patrilineality. Women originated from a larger mating network and moved to join the men, with whom they were buried. Finally, the oldest brother likely held a higher social position, which was expressed in terms of fertility.

Keywords: biological kinship | prehistoric family | monogamy/polygamy | palaeogenomes

Jens Blöcher, Maxime Brami, Isabelle Soie Feinauer, Eliza Stolarczyk, Yoan Diekmann, Lisa Vetterdietz, Marina Karapetian, Laura Winkelbach, Vanessa Kokot, Leonardo Vallini, Astrid Stobbe, Wolfgang Haak, Christina Papageorgopoulou, Rüdiger Krause, Svetlana Sharapova & Joachim Burger

Significance: To date, knowledge about the biological side of familial organization in prehistoric societies has been limited. In particular, little is known about the structure of Bronze Age society in Eurasia at the village or household levels. Here, the skeletal community of a burial mound in the Southern Urals was studied using integrative Methods from the fields of archaeology, anthropology, and palaeogenomics. It is suggested that the descent system of the 3,800- year-old livestock herders at Nepluyevsky was patrilineal and primarily determined by consanguinity between brothers. Monogamy was the marriage norm, and postmarital residence was patrilocal, with female membership being transferred to the husband's group.

ORLANDO 2023

Ludovic Orlando, *A genetic window into the human social past*. [PNAS 120 \(2023\), e2312672120](#).

The archaeology of Nepluyevsky portrays a Bronze Age necropolis of livestock herders from the Southern Urals. With 44 skeletons deposited within 50 years at best, Kurgan 1 represents one of the largest burial mounds on site. It was the focus of the study by Blöcher et al. Clearly, females did not have the same lives as males in this community: They had a shorter life expectancy and were not even buried there if they died at an age of 5 to 14 years.

There, they found that pairs of males were more genetically related than pairs of females and that almost two thirds of the individuals tested were genetically related up to the third degree. In fact, the burial mound enclosed a genealogy spanning three generations and structured around six brothers and their wives, children, and grandchildren. The oldest brother in the DNA family tree had eight children when the others had three at best, and he was also the only one who reproduced with two women. This points to a higher status for the eldest son in this community.

Mathematik

GE 2023

Jun Ge, Xin Huang, Beilei Zan, Bo Qiu, Yipeng Cao & Weidong Guo, *Local surface cooling from afforestation amplified by lower aerosol pollution*. [Nature Geoscience 16 \(2023\), 781–788](#).

NatGeo16-781-Supplement.pdf

Afforestation can play a key role in local climate mitigation by influencing local temperature through changes in land surface properties. Afforestation impacts depend strongly on the background climate, with contrasting effects observed across

geographical locations, seasons and levels of greenhouse gas-induced warming. Meanwhile, atmospheric aerosols, which are a critical factor influencing regional climate, have varied substantially in recent decades and will continue to change. However, the impacts of aerosol changes on the local effects of afforestation remain unknown. Here, using multiple emissions scenario-based simulations, we show that lower anthropogenic emissions can modulate the local effects of afforestation through modifications in the surface energy balance. If current anthropogenic emissions are reduced to preindustrial levels, afforestation can produce additional cooling effects of up to 0.4 °C. The cooling effects of afforestation are projected to be most strongly affected in China if strict control measures on air pollution are adopted in the future. Our results demonstrate that the enhanced cooling effects of afforestation could partially counteract the warming effect of air quality control, with implications for countries that face the dual challenges of clean air and climate mitigation.