

References

Afrika

EHRET 2008

Christopher Ehret, *The early livestock-raisers of southern Africa*. [Southern African Humanities](#) **20** (2008), 7–35.

The Khoekhoe have long been recognized as historically distinctive livestock-raising people, whose ancestors were responsible for the establishment of cattle-raising across the western half of southern Africa. A further, no longer extant Limpopo Khoekhoe people have been identified as having had a major impact on the establishment of cattle and sheep-raising in the eastern side of southern Africa as well. What has been less clearly depicted is where the linguistically very closely related peoples of the Kwadi-Khoe branch of southern African Khoesan stand in these developments, and what the impact of these changes might have been on other, non-Khoe peoples. A third element, of particular relevance in the potentially correlative archaeology, is the place of ceramic technology in this story. Together, these themes are key in proposing wider linguistic, historical and archaeologically informative perspectives on the early history of livestock and livestockraising peoples in southern African history.

Keywords: Loanwords | Khoe | Zhu | Tuu | Kwadi | Nguni | Sotho | livestock | ceramics.

DI LERMIA 1999

Savino Di Lernia, *Discussing pastoralism, The case of the Acacus and surroundings (Libyan Sahara)*. [Sahara](#) **11** (1999), 7–20.

Pastoral economy is one of the most widely-spread subsistence strategies in Africa, showing a remarkable stability and a great capacity of adaptation to frequently unfavourable climatic conditions. These qualities are probably the result of very old forms of development and maturation, rooted in the Early Holocene period. The Sahara, and especially its central massifs, supplies interesting clues for analysing the pattern of the evolution and success of this type of economy. This paper deals with some methodological aspects concerning the pastoral phenomenon in its complexity. A first, preliminary reconstruction of the historical dynamics is attempted, by an archaeological analysis of the settlement system and the economic strategies adopted. The region under study is the south western Fezzan, in the Libyan Sahara, and in particular the Tadrart Acacus massif. This is the research area of the “Missione Congiunta Italo-Libica“ of the University of Rome “La Sapienza“.

WENDORF 1994

Fred Wendorf & Romuald Schild, *Are the Early Holocene Cattle in the Eastern Sahara Domestic or Wild?* [Evolutionary Anthropology](#) **3** (1994), 118–128.

Questions relating to the antiquity of domestic cattle in the Sahara are among the most controversial in North African prehistory. It is generally believed that cattle were first domesticated in southwest Asia, particularly Anatolia, or in south-east Europe, where their remains have been found in several sites dated between 9,000 and 8,000 years ago. The discovery, in several small sites in the Western

Desert of Egypt, of large bovid bones identified as domestic cattle and having radiocarbon dates ranging between 9,500 and 8,000 B.P. has raised the possibility that there was a separate, independent center for cattle domestication in northeast Africa (Fig. 1). However, it has not been universally accepted that these bones are from cattle or, if so, that the cattle were domestic.

Bibel

DEVER 1995

William G. Dever, *Ceramics, Ethnicity, and the Question of Israel's Origins*. *Biblical Archaeologist* 58 (1995), iv, 200–213.

We must probably think of most of the highland colonists as “displaced Canaanites” (both geographically and ideologically), including an assortment of urban refugees, social dropouts and malcontents, migrant farmers, resedentarized pastoralists, perhaps some Shasu-like bedouin and other immigrants from Transjordan, and even some newcomers from Syria and Anatolia. All these peoples were among those displaced by the radical socio-economic and cultural upheavals at the end of the Bronze Age toward the late thirteenth century BCE. But the new alignments that followed soon produced, among the other coalitions, our “Proto-Israelites,” emerging as an agrarian socio-economic movement on the highland frontier, and thus with sufficient solidarity to constitute an “ethnic group.” This group certainly possessed an ideology as part of its self-awareness (although this is difficult to discern archaeologically) and perhaps pronounced “reformed” tendencies, as such dissident groups have often had.⁹ The foregoing seems to me to be the most likely scenario at the moment for the origins and early development of ancient Israel.

The “Exodus-Conquest” story is perhaps really about only a small group, the central unrepresentative group, the southern tribes of Ephraim and Manasseh, who were sometimes called the “House of Joseph,” because of the obvious Egyptian connection in one strand of the early tradition. If we then how the story of the “House of Joseph” became in time the story of “all Israel,” the answer may be deceptively simple. It was they who in the end told the story; and quite naturally, they included all those who later reckoned themselves part of biblical Israel. In time most people no doubt believed that they had been in Egypt.

A simple analogy may help us to understand this phenomenon. In mainstream American tradition, we all celebrate Thanksgiving as though we ourselves had come to these shores on the Mayflower. That is the myth; yet in fact, most of us got here some other way. My ancestors came from County Donegal in the potato famine 150 years ago. Yours may have come as slaves from Africa, or from the ghettos of Europe, or as farm workers from Mexico. But spiritually (yes!), we are all Pilgrims: that is what makes us ‘Americans.’ So are the myths of Israel’s origins, or ours, true? Of course they are in the deepest sense. That we can put off our religious or cultural hat, and temporarily don the hat of the modern skeptical historian or archaeologist, does not necessarily alter or diminish the value of the tradition. We are what we believe we are, just as ancient Israel was.

FRANKEN 1995

H. J. Franken & Gloria London, *Why Painted Pottery Disappeared at the End of the Second Millennium BCE*. *Biblical Archaeologist* 58 (1995), iv, 214–222.

Ceramic technology offers insights regarding where and how ancient pottery was made. It can reveal subtle changes in the technology that are not apparent on the surface. Despite the conservative nature of the industry and a general

reluctance to make changes without ample reason, during the LB II Age, potters had no alternative but to improve their techniques. Changes in the manufacturing technique need not immediately affect the external appearance of a pot. The heterogeneous character of the pottery industry reflects the society itself, which consisted of different peoples, different traditions, and different ethnic groups. To cite a cluster of features typical of any single ethnic group requires an assessment of the extent to which all aspects of a society are likely to change simultaneously. Yet by the time archaeologists are able to detect a new culture, it is highly likely that various elements were introduced at different times by different people for a variety of reasons. This reality mirrors the complexity of the ancient society and contributes the complexity of our attempts to recognize the association between people and pottery.

Biologie

COBB 2023

Matthew Cobb & Nathaniel Comfort, *What Watson and Crick really took from Franklin*. [nature](#) **616** (2023), 657–660.

Rosalind Franklin was no victim in the discovery of DNA’s structure. An overlooked letter and an unpublished news article, both from 1953, show that she was an equal contributor.

“It has not escaped our notice that both examples render Franklin in a position of strength, every bit a peer of Wilkins, Crick and Watson.“

COHEN 2023

Pnina Cohen, Eyal Privman, Scott Bucking, Joshua Schmidt, Guy Bar-Oz & Meirav Meiri et al., *Ancient DNA from a lost Negev Highlands desert grape reveals a Late Antiquity wine lineage*. [PNAS](#) **120** (2023), e2213563120.

[pnas120-e2213563120-Supplement.pdf](#)

Recent excavations of Late Antiquity settlements in the Negev Highlands of southern Israel uncovered a society that established commercial-scale viticulture in an arid environment [D. Fuks et al., *Proc. Natl. Acad. Sci. U.S.A.* 117, 19780–19791 (2020)]. We applied target-enriched genome-wide sequencing and radiocarbon dating to examine grapevine pips that were excavated at three of these sites. Our analyses revealed centuries long and continuous grape cultivation in the Southern Levant. The genetically diverse pips also provided clues to ancient cultivation strategies aimed at improving agricultural productivity and ensuring food security. Applying genomic prediction analysis, a pip dated to the eighth century CE was determined to likely be from a white grape, to date the oldest to be identified. In a kinship analysis, another pip was found to be descendant from a modern Greek cultivar and was thus linked with several popular historic wines that were once traded across the Byzantine Empire. These findings shed light on historical Byzantine trading networks and on the genetic contribution of Levantine varieties to the classic Aegean landscape.

Keywords: archaeobotany | viticulture | Late Antiquity | Negev Highlands | ancient DNA

Pnina Cohen, Roberto Bacilieri, Jazmín Ramos-Madriral, Eyal Privman, Elisabetta Boaretto, Audrey Weber, Daniel Fuks, Ehud Weiss, Tali Erickson-Gini, Scott Bucking, Yotam Tepper, Deborah Cvikel, Joshua Schmidt, M. Thomas P. Gilbert, Nathan Wales, Guy Bar-Oz & Meirav Meiri

Significance: The modern winemaking industry is heavily reliant on a limited number of European grape cultivars, which are best suited for cultivation in temperate climates. Global warming emphasizes the need for diversity in this high-impact agricultural crop. Grapevine lineages bred in hot and arid regions, often preserved over centuries, may present an alternative to the classic winemaking grape cultivars. Our study of a legacy grapevine variety from the Negev Highlands desert of southern Israel sheds light on its genetics, biological properties, and lasting impact. The modern-day close relatives of the archaeological grapes may now provide an exceptional platform for future studies on grapevine resilience to aridity.

GIBBONS 2023

Ann Gibbons, *Genetic, historic records reveal origin of lager*. [science](#) **380** (2023), 331.

Two yeast strains mixed in a German brewing cellar 400 years ago.

Lager: untergärig; Ale: obergärig

WILLYARD 2023

Cassandra Willyard, *Are Repeat Covid Infections Dangerous? What the science says*. [nature](#) **616** (2023), 650–652.

Researchers disagree over how bad it is to be reinfected, and whether COVID-19 can cause lasting changes to the immune system.

Experts estimate that the majority of the world's population has been infected at least once; in the United States, some estimates suggest that as many as 65 % of people have had multiple infections. And it's likely that in the decades to come, we're all destined to get COVID-19 many more times.

Datierung

GRÜN 2003

Rainer Grün, Peter Beaumont, Phillip V. Tobias & Stephen Eggs, *On the age of Border Cave 5 human mandible*. [Journal of Human Evolution](#) **45** (2003), 155–167.

An enamel fragment from the Border Cave 5 specimen was analysed with non-destructive ESR combined with laser ablation ICP-MS for uranium profiling. We obtained an age of 74 ± 5 ka which fits exactly into the chronological framework that has been previously established for Border Cave by a variety of dating techniques. The result lays at rest the view that BC5 could be of Iron Age, as was implied by (Journal of Human Evolution, 31 (1996) 499) based on nitrogen contents and infra-red splitting factors.

TRIBOLO 2009

C. Tribolo et al., *Thermoluminescence dating of a Stillbay–Howiesons Poort sequence at Diepkloof Rock Shelter (Western Cape, South Africa)*. [Journal of Archaeological Science](#) **36** (2009), 730–739.

New excavations have been undertaken at Diepkloof Rock Shelter (DRS; South Africa) since 1999. It is one of the very few sites where Howiesons Poort and Stillbay assemblages can be collected from the same archaeological sequence. These Middle Stone Age techno-complexes are particularly interesting for their affinities with the much younger Later Stone Age facies, and their association with evidence

for symbolic behaviour. Establishing their chronology is therefore particularly important for the understanding of the apparition and the evolution of the so-called “modern” behaviours. Data already available suggest ages ranging from 55 to 80 ka for the Howiesons Poort and from 70 to 80 ka for the Stillbay techno-complexes in several South African sites. The thermoluminescence dating undertaken at DRS on 22 stone samples originating from the entire stratigraphic record indicates intervals starting 10–50 ka earlier for these techno-complexes in this site. Possible caveats in the dating process are examined but to the best of our current knowledge must be rejected.

Keywords: Middle Stone Age | South Africa | Diepkloof | Howiesons Poort | Stillbay | Modern behaviour | Thermoluminescence | Chronology

C. Tribolo, N. Mercier, H. Valladas, J. L. Joron, P. Guibert, Y. Lefrais, M. Selo, P.-J. Texier, J.-Ph. Rigaud, G. Porraz, C. Poggenpoel, J. Parkington, J.-P. Texier & A. Lenoble

Klima

BORREGGINE 2023

Marisa Borreggine et al., *Sea-level rise in Southwest Greenland as a contributor to Viking abandonment*. [PNAS 120 \(2023\), e2209615120](#).

The first records of Greenland Vikings date to 985 CE. Archaeological evidence yields insight into how Vikings lived, yet drivers of their disappearance in the 15th century remain enigmatic. Research suggests a combination of environmental and socioeconomic factors, and the climatic shift from the Medieval Warm Period (≈ 900 to 1250 CE) to the Little Ice Age (≈ 1250 to 1900 CE) may have forced them to abandon Greenland. Glacial geomorphology and paleoclimate research suggest that the Southern Greenland Ice Sheet readvanced during Viking occupation, peaking in the Little Ice Age. Counterintuitively, the readvance caused sea-level rise near the ice margin due to increased gravitational attraction toward the ice sheet and crustal subsidence. We estimate ice growth in Southwestern Greenland using geomorphological indicators and lake core data from previous literature. We calculate the effect of ice growth on regional sea level by applying our ice history to a geophysical model of sea level with a resolution of ≈ 1 km across Southwestern Greenland and compare the results to archaeological evidence. The results indicate that sea level rose up to ≈ 3.3 m outside the glaciation zone during Viking settlement, producing shoreline retreat of hundreds of meters. Sea-level rise was progressive and encompassed the entire Eastern Settlement. Moreover, pervasive flooding would have forced abandonment of many coastal sites. These processes likely contributed to the suite of vulnerabilities that led to Viking abandonment of Greenland. Sea-level change thus represents an integral, missing element of the Viking story.

Keywords: sea-level change | Norse | glacial isostatic adjustment | archaeology

Marisa Borreggine, Konstantin Latychev, Sophie Coulson, Evelyn M. Powell, Jerry X. Mitrovica, Glenn A. Milne & Richard B. Alley

Significance: Vikings occupied Greenland from 985 CE to the mid-15th century. Hypotheses regarding their disappearance include combinations of environmental change, social unrest, and economic disruption. Occupation coincided with a transition from the Medieval Warm Period to the Little Ice Age and Southern Greenland Ice Sheet advance. We demonstrate using geophysical modeling that this advance would have (counterintuitively) driven local sea-level rise of ≈ 3 m (when combined with a long-term regional trend) and inundation of 204 km². This largely overlooked process led to the abandonment of some sites and pervasive

flooding. Progressive sea-level rise impacted the entire settlement and may have acted in tandem with social and environmental factors to drive Viking abandonment of Greenland.

Methoden

GIBBONS 2023

Ann Gibbons, *The woman with the deer pendant*. [science](#) **380** (2023), 446.

Pioneering technique gleans DNA from a Stone Age ornament, revealing its last wearer.

Sprachlehre

ANIKIN 2023

Andrey Anikin, Nikolay Aseyev & Niklas Erben Johansson, *Do some languages sound more beautiful than others?* [PNAS](#) **120** (2023), e2218367120.

[pnas120-e2218367120-Supplement.pdf](#)

Italian is sexy, German is rough—but how about Páez or Tamil? Are there universal phonesthetic judgments based purely on the sound of a language, or are preferences attributable to language-external factors such as familiarity and cultural stereotypes? We collected 2,125 recordings of 228 languages from 43 language families, including 5 to 11 speakers of each language to control for personal vocal attractiveness, and asked 820 native speakers of English, Chinese, or Semitic languages to indicate how much they liked these languages. We found a strong preference for languages perceived as familiar, even when they were misidentified, a variety of cultural-geographical biases, and a preference for breathy female voices. The scores by English, Chinese, and Semitic speakers were weakly correlated, indicating some cross-cultural concordance in phonesthetic judgments, but overall there was little consensus between raters about which languages sounded more beautiful, and average scores per language remained within $\pm 2\%$ after accounting for confounds related to familiarity and voice quality of individual speakers. None of the tested phonetic features—the presence of specific phonemic classes, the overall size of phonetic repertoire, its typicality and similarity to the listener’s first language—were robust predictors of pleasantness ratings, apart from a possible slight preference for nontonal languages. While population-level phonesthetic preferences may exist, their contribution to perceptual judgments of short speech recordings appears to be minor compared to purely personal preferences, the speaker’s voice quality, and perceived resemblance to other languages culturally branded as beautiful or ugly.

Keywords: language attitudes | phonesthetics | cross-cultural | voice

Significance: Despite the abiding popular interest, there is hardly any empirical research on whether some languages sound more beautiful than others and whether some phonetic features are universally attractive. We carefully controlled for language familiarity and cultural biases in the first large-scale, cross-cultural comparison of hundreds of languages and did not find any widely shared preferences for specific languages or phonetic features. While some types of human voices may be generally attractive, the languages themselves were surprisingly uniform in terms of their esthetic appeal to the average person in our sample. This initial finding promotes an egalitarian view of extant world languages, demonstrates the

feasibility of cross-cultural phonesthetic research, and raises important questions about the role of esthetics in language evolution.