

## References

### Anthropologie

PRADO-NÓVOA 2017

O. Prado-Nóvoa, A. Mateos, G. Zorrilla-Revilla, M. Vidal-Cordasco & J. Rodríguez, *Efficiency of gathering and its archaeological implications for an European Early Palaeolithic population*. [Journal of Anthropological Archaeology](#) **45** (2017), 131–141.

We evaluate the efficiency of acorn gathering as a foraging method for a middle Pleistocene human population living in mid-latitude European territory. An innovative experimental approach measures how much energy an average female spends gathering nuts in a natural environment, comparing this value with the caloric return of this vegetable resource. The gathering activities were performed by 9 volunteers and showed that gathering 3 kg of acorns in 1 h represents a moderate activity in energetic terms, consuming not more than 300 kcal. Thus, due to their high energetic content, gathering nuts is a highly efficient foraging method. The energetic return obtained by gathering acorns, one of the more abundant nuts in the Mediterranean landscape, is favourably compared with the return provided by hunting. Acorns were a seasonally abundant resource at these ecosystems 300 kya and were rich in nutrients and relatively easy to store, making them a highly attractive food for the Palaeolithic inhabitants of this landscape.

Keywords: Bioenergetics | Acorn gathering | Foraging efficiency | Hunting | Middle Pleistocene | Europe

### Bibel

LEVIN 2014

Yigal Levin, *Baal Worship in Early Israel, An Onomastic View in Light of the “Eshbaal” Inscription from Khirbet Qeiyafa*. [Maarav](#) **21** (2014), 203–222.

It has long been claimed, that in the earliest periods of Israelite national identity, it was quite common to use the title “ba’al “ as an epithet for the God of Israel. What would be more natural than to call the tribal or national God “Lord”? As stated by Dearman: “In terms of state theology both [Saul and David] apparently were Yahwists, and the significance of these personal names seems to be that the theophoric element baal is an appellative for YHWH, as were don (Adonijah) and melek (Malchishua).“ As we have shown above, this is reflected in both toponyms and personal names, almost all of them from the time of the Judges and the early monarchy.

However by the ninth century, “Baal” came to be seen as a specifically foreign deity, perhaps due to the influx of Phoenician Baal cults under the Omride dynasty. The biblical narratives do not claim that Solomon’s idolatry, which led to the division of the kingdom (1 Kgs 11:4–13), was adopted by the people at large. Even Jeroboam’s bamot with their golden calves and illegitimate priests (1 Kgs 12:25–33) are not described as anything more than “unorthodox” places of worship of “your God(s), O Israel, who brought you up from the land of Egypt” (v. 28).

It is the Omrides who are credited with the establishment of the cult of Baal in Israel and in Judah, beginning with Ahab and his Sidonian wife Jezebel (1 Kgs 16:32), followed in Judah by Jehoram, who “went in the way of the kings of Israel, as did the house of Ahab, for a daughter of Ahab was his wife” (2 Kgs 8:18). This daughter, presumably, was none other than Athaliah, who attempted to wipe out the house of David and to establish (or at least to support) a “house of Baal” in Jerusalem (2 Kgs 11:18). From this point on, “good kings” are those who lead the people in exclusive worship of Yahweh, while “bad kings” are those who support worship of Baal and other deities. Thus a “purist” such as Elijah could demand of Israel to choose between Baal and the God of Israel (1 Kgs 18:21). This was picked up by the classical prophets such as Hosea, Isaiah and Jeremiah, as well as the Deuteronomistic Historian, to whom worship of “the Baalim” was a cardinal sin. The same historian did what he could to obfuscate the use of “Baalistic” names by the early kings, since he did not view them as idol-worshippers.

However it is worth noting, that among the kings of Israel, the first “Yahwistic” names are actually those of Ahab’s sons, Ahaziah and Joram, as well as that of his daughter Athaliah. The same is true of their contemporaries in Judah, Jehoshaphat and his sons, and such names became almost de rigueur in both kingdoms from this time onward.

## **Bibel Grabung**

YADIN 1975

Yigael Yadin, *Hazor, The rediscovery of a great citadel of the Bible*. (London 1975).

## **Mesolithikum Kultur**

MORALES-PÉREZ 2017

Juan V. Morales-Pérez et al., *Funerary practices or food delicatessen? Human remains with anthropic marks from the Western Mediterranean Mesolithic*. *Journal of Anthropological Archaeology* 45 (2017), 115–130.

Juan V. Morales-Pérez, Domingo C. Salazar-García, M<sup>a</sup> Paz de Miguel Ibáñez, Carles Miret i Estruch, Jesús F. Jorda Pardo, C. Carlos Verdasco Cebrián, Manuel Pérez Ripoll & J. Emili Aura Tortosa

The identification of unarticulated human remains with anthropic marks in archaeological contexts normally involves solving two issues: a general one associated with the analysis and description of the anthropic manipulation marks, and another with regard to the interpretation of their purpose. In this paper we present new evidence of anthropophagic behaviour amongst hunter-gatherer groups of the Mediterranean Mesolithic. A total of 30 human remains with anthropic manipulation marks have been found in the Mesolithic layers of Coves de Santa Maira (Castell de Castells, Alicante, Spain), dating from ca. 10.2–9 cal ky BP. We describe the different marks identified on both human and faunal remains at the site (lithic, tooth, percussion and fire marks on bone cortex). As well as describing these marks, and considering that both human and faunal remains at the site present similar depositional and taphonomic features, this paper also contextualizes them within the archaeological context and subsistence patterns described for Mesolithic groups in the region. We cannot entirely rule out the possibility that these practices may be the result of periodic food stress suffered by the human populations. These anthropophagic events at the site coincide with a cultural change at the regional Epipalaeolithic-Mesolithic transition.

Keywords: Prehistoric cannibalism | Disarticulated human remains | Iberia | Santa Maira | Western Mediterranean Mesolithic

## Physik

GENZEL 2017

R. Genzel et al., *Strongly baryon-dominated disk galaxies at the peak of galaxy formation ten billion years ago*. [nature 543 \(2017\), 397–401](#).  
n543-0397-Supplement.pdf

R. Genzel, N. M. Förster Schreiber, H. Übler, P. Lang, T. Naab, R. Bender, L. J. Tacconi, E. Wisnioski, S. Wuyts, T. Alexander, A. Beifiori, S. Belli, G. Brammer, A. Burkert, C. M. Carollo, J. Chan, R. Davies, M. Fossati, A. Galametz, S. Genel, O. Gerhard, D. Lutz, J. T. Mendel, I. Momcheva, E. J. Nelson, A. Renzini, R. Saglia, A. Sternberg, S. Tacchella, K. Tadaki & D. Wilman

In the cold dark matter cosmology, the baryonic components of galaxies—stars and gas—are thought to be mixed with and embedded in non-baryonic and non-relativistic dark matter, which dominates the total mass of the galaxy and its dark-matter halo. In the local (low-redshift) Universe, the mass of dark matter within a galactic disk increases with disk radius, becoming appreciable and then dominant in the outer, baryonic regions of the disks of star-forming galaxies. This results in rotation velocities of the visible matter within the disk that are constant or increasing with disk radius—a hallmark of the dark-matter model. Comparisons between the dynamical mass, inferred from these velocities in rotational equilibrium, and the sum of the stellar and cold-gas mass at the peak epoch of galaxy formation ten billion years ago, inferred from ancillary data, suggest high baryon fractions in the inner, star-forming regions of the disks. Although this implied baryon fraction may be larger than in the local Universe, the systematic uncertainties (owing to the chosen stellar initial-mass function and the calibration of gas masses) render such comparisons inconclusive in terms of the mass of dark matter. Here we report rotation curves (showing rotation velocity as a function of disk radius) for the outer disks of six massive star-forming galaxies, and find that the rotation velocities are not constant, but decrease with radius. We propose that this trend arises because of a combination of two main factors: first, a large fraction of the massive high-redshift galaxy population was strongly baryon-dominated, with dark matter playing a smaller part than in the local Universe; and second, the large velocity dispersion in high-redshift disks introduces a substantial pressure term that leads to a decrease in rotation velocity with increasing radius. The effect of both factors appears to increase with redshift. Qualitatively, the observations suggest that baryons in the early (high-redshift) Universe efficiently condensed at the centres of dark-matter haloes when gas fractions were high and dark matter was less concentrated.

SWINBANK 2017

Mark Swinbank, *Distant galaxies lack dark matter*. [nature 543 \(2017\), 318–319](#).

The masses of nearby spiral galaxies are dominated by invisible ‘dark matter’. Surprisingly, galaxies in the distant Universe seem to contain comparatively little of it.

## Politik Energie

LEFERINK 2016

Frank Leferink, Cees Keyer & Anton Melentjev, *Static Energy Meter Errors Caused by Conducted Electromagnetic Interference*. [IEEE Electromagnetic Compatibility Magazine](#) **5** (2016), iv, 49–55.

Static, or electronic, energy meters are replacing the conventional electromechanical meters. Consumers are sometimes complaining about higher energy readings and billing after the change to a static meter, but there is not a clear common or root cause at present. Electromagnetic interference has been observed between active infeed converters as used in photo-voltaic systems and static meters. Reducing the interference levels eliminated inaccurate reading in static meters. Several field investigations failed to identify a clear root cause of inaccurate readings of static energy meters. Experiments were performed in a controlled lab environment. Three-phase meters showed large deviations, even when supplied with an ideal sinusoidal voltage from a fourquadrant power amplifier. Large variations could be observed when non-linear, fast switching, loads were connected. A deviation of +276 % was measured with one static energy meter, +265 % with a second and -46 % with a third static energy meter. After dismantling it was revealed that the meters with the positive deviation used a Rogowski coil current sensor. The meter with a Hall effect-based current sensor gave the -46 % deviation. The fourth meter, with a current transformer, resulted in -10 % in one experiment and +8 % in another experiment, where the deviations are with respect to a conventional electromechanical meter. Measurements were repeated with more meters and supplied from standard, low internal impedance, mains supply in the laboratory. Deviations of +475 %, +566 %, +569 %, +581 %, +582 % and -31 % and -32 % were registered, with again the positive deviation for Rogowski coil current sensors and negative deviations for the Hall sensors.

**Keywords:** Electromagnetic Compatibility | Static Meter | Smart Meter | Electronic Meter | Interference