

Peer Review

Review of: "Does Palaeolithic Resource Management Leading to Domestication Explain Human “Modernity”?”

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Very interesting work. I have made some comments in an attempt to improve the work. But, overall, it is a very extensive and interesting research. Congratulations.

Abstract

In this sentence: “Human domesticated numerous plants and animals.”, I would write “human groups” instead of just “humans”.

Next line, instead of “it is said”, I would write “there is evidence”.

“At this time, there is also a shift in human characteristics,...”, I would write “Currently” instead of “At this time”

Introduction

“Foraging human populations do not have decisive control over the carrying capacity of their environments.” : I wouldn't say that they have no control over the environment, but rather that it is a different form of control.

“This change was so profound that it provided humans with surplus energy, time and means to produce durable shelters, abundant figurative art and, ultimately, written records and science.” : maybe add some examples and references about those durable shelters and figurative art

“the domestication of animals, plants and fungi results in the collective genetic alteration of their physiology, behaviour (where applicable), appearance or life cycle through selective breeding.” : I would like to see some reference for this definition

“For instance, selection for a reduction in flight response (‘tameness’ or docility) might cause incidental shortening of the face, floppy ears, relative brain-size reduction or change of coat colour, among other changes.” : reference?

“Artificial intentional selection by domesticators tends to involve only a single character or a few characteristics” : artificial and intentional are not the same in this case?

Artificial intentional selection by domesticators tends to involve only a single character or a few characteristics,~~but~~ However, it may be expressed in more numerous pleiotropic consequences that seem unconnected to the selection criterion

“Somatic changes include those in cranial and facial morphology (such as shortening of the snout), reductions of tooth size (notably the canines), reductions in brain volume and in specific brain regions, shortening of the spine, shape changes to body parts (e.g. ear and tail forms) and depigmentation (coat colour changes). Non-somatic effects of the domestication syndrome include more frequent and non-seasonal oestrus cycles that can range to their complete elimination, changed concentrations of several neurotransmitters, alterations in adrenocorticotrophic hormone levels, increased docility, prolongation of juvenile behaviour and various other neotenous effects.” : references?

“Therefore, archaeological evidence of pastoralism and animal husbandry is less abundant.” : Although they are less abundant, I would like to see some reference to them.

There is abundant evidence of changed technologies (lithic “cultures” or industries, sewing needles, jewellery, artistic expressions) in the Upper Palaeolithic. : references?

One of many possible interpretations of representations of individual animals in cave art is that they were actual or desired ‘pets’ of artists who painted them : references?

A large portion of the evidence of Upper Palaeolithic human activities comes from the temperate zone of Eurasia. : I would like to see some examples of archaeological sites

“the Middle to the Upper Palaeolithic, faunal...”: I would specify that Middle Palaeolithic is MP and Upper Palaeolithic is UP, as you mentioned like this in the next sentence

The case of the horse

Homo heidelbergensis and *H. sapiens neanderthalensis* have been hunting horses for several hundred millennia : For years, the nomenclature has been *Homo neanderthalensis*, not *Homo sapiens neanderthalensis*.

e.g. at Boxgrove, Schöningen, and Bilzingsleben), apparently by driving them over cliffs or spearing them at water sources. : [references?](#)

Concerning horse domestication, Bogaard et al. : et al must go in italics

E. ferus przewalskii, once occurring widely across Eurasia, but now limited to five protected herds in China and Mongolia : There are some other reserves where you can find przewalskii individuals, like Living Palaeolithic in Burgos, Castile and Leon, Spain

Declarations

Potential competing interests: No potential competing interests to declare.