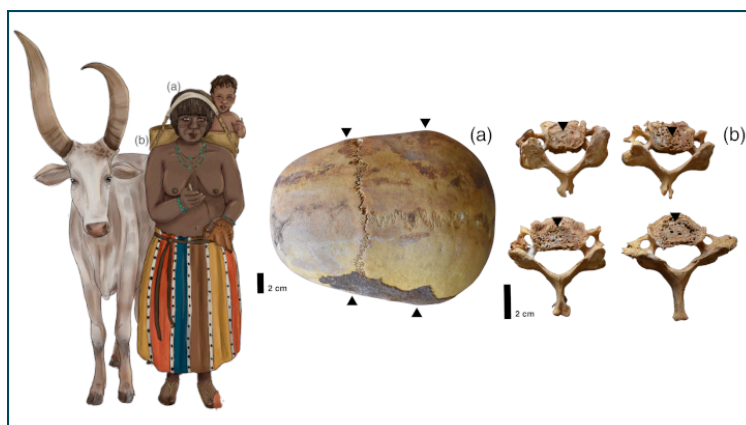


# Divulga UAB

Revista de difusió de la recerca de la  
Universitat Autònoma de Barcelona

19/05/2025

## Recent discoveries in the Nile Valley reveal how women have carried the weight of society on their heads for millennia



A study led by the UAB reveals that women of the Kerma culture in Nubia, since the Bronze Age, developed skeletal changes adapted to carrying weight on their heads. The article, based on the analysis of skeletons from Abu Fatima, uncovers how this often-invisibilized practice was deeply marked by gender and had a direct impact on female anatomy.

For generations, the most common images of physical labour in prehistory have been dominated by male representations. However, a study published in the prestigious *Journal of Anthropological Archaeology* challenges this androcentric view: in what is now Sudan, more than 3,500 years ago, Nubian women of the Kerma culture carried heavy objects—and sometimes even children—on their heads daily, using techniques passed down through generations, such as headstraps known as *tumplines*.

The research, led by Jared Carballo and Uroš Matić and involving archaeologists from various universities, combines osteological analysis with ethnographic and iconographic

studies of different African and Mediterranean cultures. The aim: to understand how daily work shapes the body and how load-bearing tasks were distributed by gender.

The study of skeletons from the cemetery of Abu Fatima, associated with the Kerma culture (2500–1500 BCE), revealed clear differences between men and women. While male skeletons showed stress markers in shoulders and arms—likely from shoulder-carrying—female remains displayed specific degenerative lesions in the cervical vertebrae and parts of the skull associated with prolonged use of straps that transferred weight from the forehead to the back.

One of the clearest examples was the so-called "individual 8A2": a woman who died aged over 50 and was buried with prestige items such as an ostrich feather fan and a leather cushion. Analysis of her tooth enamel suggests she was born in a different location from where she was buried, indicating she may have been a migrant. Her skull shows a depression behind the coronal suture and severe cervical osteoarthritis, consistent with long-term use of headstraps. Likely, in addition to migrating, she spent much of her life transporting heavy loads—or even children—around this settlement near the Kerma capital. A way of life as common as it was ignored by history.

These practices, still present in rural regions of Africa, Asia, and Latin America, have long been silenced in historical narratives. Yet their impact was such that they literally shaped the anatomy of those who carried them out. Head-loading was not just a physical burden: it was a material expression of social inequality, and at the same time, of resilience.

The findings open new lines of inquiry into female mobility, motherhood on the move, and the economic roles of women in the past. Abu Fatima offers a new window into the ancient Nile and a stark reminder of how heavy women's historical silences still weigh.

#### **Jared Carballo-Pérez**

Department of Ancient and Medieval History

Universitat Autònoma de Barcelona

Faculty of Archaeology

Universiteit Leiden

[jared.carballo@uab.cat](mailto:jared.carballo@uab.cat)

#### **References**

Carballo-Pérez, J., Matić, U., Hall, R., Smith, S.T., Schrader, S.A. (2025). ***Tumplines, baskets, and heavy burden? Interdisciplinary approach to load carrying in Bronze Age Abu Fatima, Sudan.*** *Journal of Anthropological Archaeology* 77: 101652.  
<https://doi.org/10.1016/j.jaa.2024.101652>

[View low-bandwidth version](#)