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Jebel Sahaba: A succession of violence rather than a prehistoric war

- Since the 1960s, the Jebel Sahaba cemetery (Nile Valley, present-day Sudan) has become the emblem of organised warfare during prehistory.
- Re-analysis of the data, however, argues for a succession of smaller conflicts.
- Competition for resources is probably one of the causes of the conflicts witnessed in this cemetery.

Since its discovery in the 1960s, the Jebel Sahaba cemetery (Nile Valley, Sudan), 13 millennia old, was considered to be one of the oldest testimonies to prehistoric warfare. However, scientists from the CNRS and the University of Toulouse - Jean Jaurès¹ have re-analysed the bones preserved in the British Museum (London) and re-evaluated their archaeological context. The results, published in *Scientific Reports* on May 27, 2021, show that it was not a single armed conflict but rather a succession of violent episodes, probably exacerbated by climate change.

Many individuals buried at Jebel Sahaba bear injuries, half of them caused by projectiles, the points of which were found in the bones or the fill where the body was located. The interpretation as evidence of mass death due to a single armed conflict, however, remained debated until a team of anthropologists, prehistorians and geochemists undertook a new study of the thousands of bones, about a hundred associated lithic pieces and the entire burial complex (now submerged by Lake Aswan) from 2013 to 2019.

The bones of 61 individuals were re-examined, including microscopic analysis, in order to distinguish traces of injury from damage produced after burial. About a hundred new lesions, both healed and unhealed, were identified, some with previously unrecognised lithic flakes still embedded in the bones. In addition to the 20 individuals already identified, 21 other skeletons have lesions, almost all suggestive of interpersonal violence, such as traces of projectile impact or fractures. In addition, 16 individuals have both healed and unhealed injuries, suggesting repeated episodes of violence over the course of a person's life rather than a single conflict. This hypothesis is supported by the fact that some skeletons appear to have been disturbed by later burials. Surprisingly, men, women and children seem to have been treated indiscriminately in terms of the number and type of injuries or the projectiles direction².

These new data also reveal that the majority of lesions were produced by composite projectiles, throwing weapons (arrows or spears) composed of several sharp lithic pieces, some of which are laterally embedded. The presence of variously sharpened points, with variations in the orientation of the cutting edge, suggests that the intended purpose was to lacerate and bleed the victim.

These new results reject the hypothesis of a disaster cemetery linked to a single war. Instead, this site indicates a succession of limited raids or ambushes against these hunter-fisher-gatherers, at a time of major climatic variations (end of the last ice age and beginning of the African humid period). The concentration of archaeological sites of different cultures in such a limited area of the Nile Valley at this time suggests that this region must have been a refuge area for human populations subject to these climatic fluctuations. Competition for resources is therefore probably one of the causes of the conflicts



witnessed in the Jebel Sahaba cemetery. This analysis, which changes the history of violence in prehistory, invites us to reconsider other sites from the same period.

Notes

¹ Working in the laboratories : « De la Préhistoire à l'actuel : culture, environnement et anthropologie » (CNRS/Université de Bordeaux/Ministère de la Culture), « Archéozoologie, archéobotanique : sociétés, pratiques et environnements » (CNRS/Museum national d'Histoire naturelle) and « Travaux et recherches archéologiques sur les cultures, les espaces et les sociétés » (CNRS/Université Toulouse - Jean Jaurès/Ministère de la Culture).

² Information from comparisons with experimental archaeological work on hunting techniques.



Archival photograph illustrating the double grave of individuals JS 20 and JS 21 with pencils indicating the position of associated lithic artefacts.

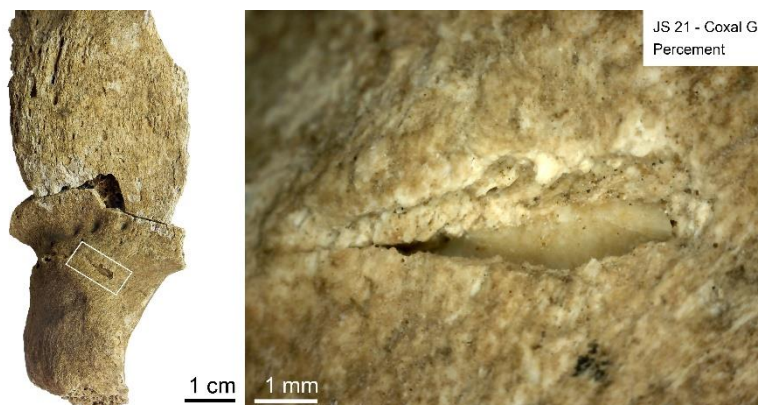
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Study of human remains from Jebel Sahaba in the Department of Egypt and Sudan, British Museum (London).

Microscopic analysis of bone lesions and anthropological study by Marie-Hélène Dias-Meirinho (left) and Isabelle Crevecoeur (right).

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Projectile impact puncture with an embedded lithic fragment in the posterior surface of the left hip bone of individual JS 21.

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Bibliography

New insights on interpersonal violence in the Late Pleistocene based on the Nile valley cemetery of Jebel Sahaba, Isabelle Crevecoeur, Marie-Hélène Dias-Meirinho, Antoine Zazzo, Daniel Antoine & François Bon. *Scientific Reports*, 27 May 2021. DOI : [10.1038/s41598-021-89386-y](https://doi.org/10.1038/s41598-021-89386-y) (the link will be active after the embargo is lifted).

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