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ABSTRACT BOOK

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"Nativity" in the bone-bearing beds of Bethlehem - taxonomy and taphonomy of the elephant remains

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The bone-bearing beds of Bethlehem (Judean Mountains, Palestine) were excavated by Gardner and Bate in the late 1930s. The history of the excavations reflects political events as well as personal circumstances that impeded the final publication of the site. However, the locality is an important Plio-Pleistocene assemblage of varied faunal components (Bate, 1934; Bate, 1941; Gardner and Bate, 1937). Hooijer (1958) revised the fauna and reported the existence of the following species: *Nyctereutes megamastoides*, *Homotherium* (?) sp., *Hipparion* sp., *Dicerorhinus etruscus*, *Sus* cf. *strozii*, *Giraffa* cf. *camelopardalis*, *Leptobos* sp. nov., *Gazellospira torticornis*. The elephant remains include tusk, mandibles, teeth and some post-cranial elements, identified by Hooijer as *Archidiskodon* cf. *planifrons* (i.e. *Elephas* cf. *planifrons*).

A taxonomic revision of the fauna is in progress, together with an assessment of site taphonomy. Through unpublished archive sources (see Shindler, 2005) we are attempting to reconstruct the nature of the sediments, the history of deposition and the taphonomic history of the faunal components leading to the creation of the "bone-bearing beds". While revising the fauna (at NHM, London) un-described elements and species have been found. Some of the faunal specimens suffered post depositional destruction and are slightly deformed. Thus X-Ray, 3D scanning and isotopic analysis are being used to enhance the description of the elements. The elephant material has been examined in detail and compared morphometrically

with both Siwalik *Elephas planifrons* and European *Mammuthus rumanus*.

The age of the locality is a further focus of research, based on both faunal biostratigraphy and the position of the site within regional geology.

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