

Replying to Urbani, Youlatos & Binnberg

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This note takes into account the paper “Alighieri’s *Paradiso*, archeoprimatology, and the ‘blue’ monkeys of Thera (and Knossos): A comment on Masseti (2021)” recently signed by Bernardo Urbani, Dionisios Youlatos and Julia Binnberg, in response to a previously published article of mine (Masseti 2021). In this regard, I would again point out that the iconographic characters not only of the Minoan “blue monkeys” painted at Akrotiri (Thera), but also those at Knossos (Crete), show that the animals depicted belong to the same species, i.e., the grivet, *Chlorocebus aethiops* (L., 1758) (Masseti 1980, 2012) - or the tantalus monkey, *C. tantalus* (Ogilby 1841; Groves 2008) - and not to different genera. Urbani et al. (2022), however, make a clear distinction between the primates of Thera, which they claim to be *Chlorocebus* monkeys, and those of Knossos, which they attribute to baboons. This is not the first time Urbani and Youlatos has expressed this opinion, which is also shared in part by authors such as Greenlaw (2011), Pruezt and Greenlaw (2021), and others (see Masseti 2021).

As I have tried to explain in Masseti (2021), even in ancient Egypt artistic reproductions of cercopithecines were very different in phenotypic characters as well as in size and proportions from those of baboons. In ancient times, the best-known baboon species in the land of the Nile were the hamadryas or sacred baboon, *Papio hamadryas* (L., 1758), and a little less the olive baboon, *Papio anubis* (Lesson 1827) (Osborn and Osbotnová 1998; Rolfe and Grigson 2006; Masseti and Bruner 2009). As can also be deduced from some details of the wall decoration of the Tomb of Khnemhotep II at Beni Hasan (Dynasty XII, c. 1920-1900 BC) (Fig. 1), the

latter were uniformly coloured a dark green colour with reddish-brown faces, ears and callosities, and without mantles (Masseti and Bruner 2009). As I have already noted in Masseti (2021), the ancient Egyptians painted hamadryas a greyish-green colour that could lighten around the face, with the snout, the ends of the legs and the buttocks brown. They were always depicted with mantles, as can be seen in some pictorial details of the Tomb of the Rekh-mi-Rē (ca. 470-1445 BC), at Thebes, or in the more famous wall decoration of Tutankhamun’s burial chamber, in the Valley of the Kings (Dynasty XVIII). None of the Egyptian baboon images are characterised by a white belly, as are the monkeys of the genus *Chlorocebus* Gray, 1870, in the already mentioned Tomb of the Rekh-mi-Rē (Masseti 2021). Nor is there any possibility that some guenons could be confused with subadult baboons given the obvious phenotypic characteristics that differentiate them from each other. Of course, Minoans were not aware of baboons (Osborn and Osbornová 1998; Masseti and Bruner 2009; Masseti 2021), although, as far as we know, there is absolutely no evidence that these primates were ever evoked in Bronze Age Aegean paintings; nor even of eastern macaques or langurs (see Masseti 2021, and references therein). However, I do not exclude that the depiction of baboons could be found in some ivory seals, referring to the last Proto Minoic phase (Marinatos and Hirmer 1960) (Fig. 2) and other finds of later periods recorded by Canciani (1973).

It is true that, while the primate images from Akrotiri are in a good state of preservation, those from Knossos (and from Milos) have come down to us in a rather fragmentary form (Masseti 1997, 2012; Masseti and Bruner 2009).



Fig. 1 - Detail of the wall-paintings of the tomb of Khnemhotep, at Beni Hasan (Egypt), showing olive baboons on a fig tree (Dynasty XII, c. 1920-1900 BC).

This gave the restorers the opportunity to integrate them in a way that was sometimes a little too exuberant (see Cameron 1968). However, the evidence of certain phenotypic characters excludes the possibility of taxonomic confusion even for the Cretan images. In the painting fragment from Knossos shown as an example in Fig. 1b of the paper by Urbani et al. (2022), the shape and colouration of the head and muzzle of the primate are far from those of a baboon. This fragment reveals a distinctly polychrome face of the monkey depicted, with the broad lower jaw largely coloured white, identifying the darker mask framing the eyes, and with an obvious white band separating the forehead from the upper portion of the blue-coloured head. These details are widely found in the specific morphology of the genus *Chlorocebus* representatives and their depiction in contemporary Thera and Egyptian paintings (see Masseti 2021) but are

completely absent from the exterior appearance of baboons. Where the quality of the recovered fragments may allow a correct diagnosis, all the “blue monkeys” of Thera and Crete show a similar colouration of the face and a large portion of white colour on the lower parts of the body: another character completely absent in baboons. Not even the junction of their tail and its distal portion is baboon-like but *Chlorocebus* monkey-like (Fig. 1). Baboons also always have bare buttocks and display pink skin in stark contrast to the remaining brownish or grey coat colour. This is a character completely absent from the depiction of Minoan and Egyptian “blue monkeys”. Moreover, the presence of a string around the primate’s waist in the so-called “crocus gatherer” from Knossos, also indicates that it is the representation of a monkey of the genus *Chlorocebus* and not a baboon. This was not a system used to keep baboons in captivity, neither in Egypt nor

in the Aegean world. Furthermore, compared to the “blue monkeys”, the eyes of baboons are also much smaller and dimpled. Regarding the criticism addressed to me by Urbani et al. (2022) that I repeat in many of my publications that Minoan ‘blue monkeys’ can be no more than representatives of the genus *Chlorocebus*, there is evidently still a need for this since some authors still try to attribute them to other taxa of primates.

Honestly, I find the reference to Dante Alighieri’s *Divina Commedia* in the title of Urbani et al. (2022) quite surprising when it is not mentioned in the rest of the article. In the poem of the Florentine author, as far as I can remember, there are very few references to monkeys, perhaps no more than once (*Inferno*, XXIX: 136-139) (Masetti 2022). Nor can I understand the quotation still taken from Alighieri’s work: “*La freccia del destino, quando prevista, viaggia lentamente*” (in the translation by Urbani et al.: “The arrow of destiny, when foreseen, travels slowly”), whose exact source is not specified by Urbani et al. (2022). This quotation seems to me as suspended and cryptic in its meaning. Unless one wants to detect some ironic intent, but it is not clear to whom it is addressed or why, and what its purpose is.

Contrary to what Urbani et al. (2022) note in their conclusion, I don’t even think that major new approaches “with recent methodological and theoretical perspectives on old inquiries”, have been opened so far in studies of this kind, which are purely iconographic and not properly archaeozoological. In fact, the study of the painted Minoan “blue monkeys” is mainly an iconographic investigation, since we are dealing with artistic productions and not with bone finds. Unless there is some new data that Bernardo Urbani and his collaborators have not yet wanted to show, and which might be disclosed in some forthcoming paper.

The study of zoological iconography is a very complex subject, the result of prolonged preliminary analyses and subsequent insights. Access to it requires an appropriate interdisciplinary knowledge including zoology, and taxonomy, as well as history and history of art.



Fig. 2 - Ivory seal in the shape of a sitting baboon, perhaps from Lassithi, Crete (Proto Minoic III) (from Marinatos and Hirmer 1960).

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