Science's



Were There Duikers in Ancient Egypt?

A MURAL LOCATED ON THE NORTHERN SIDE of the wall in Atet's tomb in Meidum, Egypt, dating from the 4th dynasty (~2561 to 2450 B.C.) depicts a hunting scene with an animal figure that closely resembles a duiker (1). Today, there are 14 species of duiker (a type of antelope), which inhabit central Africa. On the second pigeonhole from the top of the mural are two bovines (see the figures). A scimitar-horned oryx is on the left, recogniz-



A hunting scene and enlargement of the duiker figure from a mural in Atet's tomb.

able by its long twisted horns. On the right, with its head turned back to look at the oryx and the hunter, is the upper half of an animal whose head strongly resembles that of a duiker. Indeed, the shape of the bust and head places it in the bovine family, whereas the shape and length of the horns, which are simple and not longer than the ears, places it in the duiker genus *Cephalophus*.

Such a depiction is surprising, for this genus has never been classified in the fauna of ancient Egypt (2). In fact, this bovine and this country seem to be mutually incompatible because duikers lead a life hidden in the thickets of the wooded

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regions of central Africa, and the only species that live in the prairies and brush are sub-Saharan.

The duiker in this mural resembles the Jentink species, *Cephalopus jentinki* (Thomas, 1892), which prefers dense forests and thickets and is currently only found in a small region in Liberia and the Ivory Coast. It is the only species that has, like the animal in the mural, a dark brown head and neck with a belly, mane, and top length of the tail that are slate gray. The inside of its ears are off-white, like those of the animal in the mural. Jentink duikers also have white on their muzzle, although the white is around the nose instead of along the middle of the muzzle, as depicted in the mural.

The animal figure that resembles a duiker is part of a realistic drawing, evidenced by the fact that the scimitar-horned oryx is correctly drawn, as is the tethered

addax on the bottom right of the mural. The white blazes drawn on the muzzles of the addax and the duiker seem signs of the artist's concern for precision. The fact that the animals are realistically represented suggests that the artist observed them first-hand.

It is known that animals (those not found today in Egypt) depicted in the wild in murals in ancient Egyptian temples were not the result of foreign inspiration, because the Egyptians did not seek models outside of their country. Furthermore, this mural cannot represent a foreign scene because of the presence of the addax and the scimitar-horned oryx, which indicates the scene is from a region within the limits of what is presently the Sahara and the Sahel. Neither could the scene have been from a hunting park, for delineated grounds were not necessary at the time because game was in relative abundance. What is more, the evidence for the existence of such parks in ancient Egypt is subjective (3). In any case, it is highly unlikely that a member of the Jentink species would have been imported, because the ancient Egyptians are not known to have been in contact with central African populations. On the other hand, Meidum is located a few kilometers from

the Fayoum oasis. Before the Middle Empire, this oasis was still covered by thickets teaming with wild animals and was used for hunting. One could well imagine that hunters went to this oasis to hunt duikers. The duiker represented in the mural on Atet's tomb and the considerations discussed above suggest that an isolated nucleus of a Jentink duiker population persisted in ancient Egypt, situated north of the other duiker populations.

NICOLAS MANLIUS

Laboratoire d'Ethnobiologie-Biogéographie du Muséum National d'Histoire Naturelle de Paris, 57, rue Cuvier, 75231 Paris Cedex 05, France. Email: ethnobio@mnhn.fr

References and Notes

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Newest Member of the NIH Family

THE LATEST ADDITION TO THE NATIONAL Institutes of Health's (NIH) 24 institutes and centers-the National Institute of Biomedical Imaging and Bioengineering (NIBIB)-was signed into law by former president Bill Clinton on 29 December (H.R. 1795, Public Law 106-580). Establishment of NIBIB represents the culmination of efforts over recent years, first, from the imaging and bioengineering communities, which have through the organizations that we represent focused attention on research in our disciplines, and second, from the NIH leadership, who have increased support for biomedical imaging and bioengineering research.

Under the initiatives of former Director Harold Varmus, Acting Director Ruth Kirschstein, and Deputy Director Wendy Baldwin, the NIH established the Bioengineering Consortium (BECON) in 1997 and the Biomedical Information Science and Technology Initiative Consortium (BISTIC) in 2000. These organizations facilitate cooperation among institutes and develop research agendas in these fields. At the National Cancer Institute, Director Richard D. Klausner created the Biomedical Imaging Program to expand the size and scope of cancer imaging research. The