

Analysis of Bone Remains from Mapangani Caves, Pemba.

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Introduction

In April- May 2009, some bones were excavated from Mapangani caves in Pemba (see Chami *et al.* in this volume). In December 2009, Prof. Felix Chami requested the Department of Zoology and Wildlife Conservation (anatomy) of the University of Dar-es-Salaam for identification of the bones. He indicated that the archaeological work in Pemba focused on domesticated animals particularly those of lower depth. He also pointed out that it is believed that during the Neolithic period, dating 6,000 to 3,000 years back, wild animals did not exist in Pemba as a result of the world Biogeography processes (for conspectus see Morean and Pakenham 1941).

Methodology

Thirty seven plastic bags were received, thirty one of which were each packed with five pieces of bone and up to one hundred and twenty two pieces of small bones. In some bags there were also teeth. Four bags contained mollusc shells and two bags contained other materials. Identification work was undertaken on all the bones presented. Most of the identification process was carried out at the Department of Anatomy of the Faculty of Veterinary, Sokoine University. This is because the department has a laboratory equipped with bones from the modern domestic animals including donkey, horse, cattle, sheep, goat, dog, cat, pig and chicken. In addition, bones from some wild animals such as zebra, lion, leopard, elephant, giraffe, wildebeest, hartebeest, eland, impala, hippopotamus, rhinoceros, warthog, and dik-dik are also housed in the Department of Anatomy. The bone collection was used as reference for comparative anatomical analysis examination of the bones/pieces of bone excavated from Pemba.

Each piece of bone or bone was examined individually. The identity of a bone was based on the surface features present on it such as : shape, size, shape of the borders, processes, crest, head, tubercle, tuberosity, spine, meastus, angle, notch fossae, protrusion, foramina, tronchlear, condlye, groove, trochanter, articular surface, proximal and distal extremity, shape of shaft and other anatomical acceptable features.

The bones were assigned the original location in the body and the section of the skeleton, either axial or appendicular, taking into account the surface features. The axial skeleton includes the skull, the vertebral column, sternum and ribs. The bones of the skull include: maxilla (holds the upper teeth), nasal, frontal, lacrimal, jugal, parietal, interparietal,