

EARTHWATCH FIELD REPORT

EARLY MAN AT OLDUVAI GORGE OLDUVAI GORGE TANZANIA

A project conducted and supervised by: **Prof. Fidelis. T. Masao** of the Open University of Tanzania as the Principal Investigator (PI) and in part by **Mr. Chediel S. Msuya** of the Department of Antiquities as the Co-PI.

Research site:

Olduvai Gorge, Tanzania., 35⁰.25' East, 3⁰.00' South

Local Management:

Part of Ngorongoro Conservation Area Authority (NCAA), which is on the World Heritage List but owned by the Department of Antiquities. Both the NCAA and Dept. of Antiquities belong to the Ministry of Natural Resources and Tourism.

Key Research Objectives:

- To survey the palaeoanthropological-rich exposures at the DK site with the view to assess the diversity and distribution of the threatened surface concentration of fossils and artifacts.
- To salvage by way of excavation a representative sample of the threatened fossils and artifacts from the sediments below tuff IB
- To collect fossils and artifacts from the excavation and analyze them
- To curate the collections at the Natural History Museum at Arusha
- To record ecological features such as different lithological facies for future palaeoecological studies
- To eventually publish a monograph on the findings

Data Collection and Results:

The fieldwork this year involved excavating nine trenches at the locality where the continued preservation of the remains has been threatened. In addition to the volunteers, a number of skilled and semi skilled local excavators were hired. The rescue work included, *inter alia*, excavation, screening, washing artifacts and the fossil bone retrieved, analyzing the remains into broad categories and finally transporting and storing the collection at the Natural History Museum, Arusha for further detailed study. Together with the local staff the volunteers succeeded in retrieving significant palaeoanthropological remains, which could otherwise have been washed to the river and eventually lost for good. It is estimated that close to 80% of the threatened palaeoanthropological remains have been recovered from the DK area and thus salvaged for posterity.

Besides starting and completing the excavation of seven new trenches, (Trenches 13-19), this years' four teams crew re-exposed and completed the excavation of trenches 11 and 12 which were left incomplete by last year's teams. Preliminary analysis shows that a total of 6920 artifacts, 3650 and 10,603 identifiable and non-identifiable bones respectively were salvaged. The artifacts include typical Oldowan artifact types, such as choppers, polyhedrons, subspheroids, a variety of cores, scrapers, utilized flakes, and unretouched flakes. Others include what Mary Leakey would have scored as protobifaces, hammerstones, cobbles and nodules, burins, sundry tools, debitage or core/flake fragments (Leakey 1973). The bones and teeth recovered include a hominid

represented by a first lower right premolar. Other significant palaeontological finds include remains of now extinct species such as *elephas*, an ancient elephant, remains of a relative of the present day giraffe, and possibly *Deinotherium* or the giant extinct elephant like animal. Finds also include remains of present day species such as hippo, crocodile, baboon, giraffe, elephant, *suids*, *equids*, many varieties of *bovids*, small mammals and avifauna. Additional to this, the excavations also revealed geological or depositional features, which can serve as a window to past environments and landscapes. One can therefore conclude that the objectives of salvaging as much material as possible have been achieved.

Significance/Benefits of the Research

The DK site is one of the earliest sites at Olduvai Gorge Tanzania, endowed with a wealth of scientifically important artefactual and fossil remains. Over the years however, the continued preservation of these palaeoanthropological remains has constantly been threatened mainly by erosion and trampling by animals, especially after they have been exposed by rain. In order to mitigate this loss, a rescue and conservation expedition was mounted. The Earthwatch Institute recruited four teams of volunteers to assist in the salvage operation. The fieldwork involved excavating seven new trenches at the locality where the continued preservation of the remains has been threatened

To the local people, the Maasai, the project has:

- Not only given them employment and thus an opportunity to earn some little money to supplement the meager income from pastoralism, but it has also trained them in archaeological techniques.
- Helped in eradicating the taboo and prejudice against women, especially women working alongside men. The project has employed both Maasai men and women.

At the national and international level the project has:

- Rescued archaeological and palaeontological remains all of which have scientific values while the hominid remains have also sensational significance. For the second time, concerted efforts to minimize the loss of rare palaeontological remains through erosion have been made and proved successful.
- Shown that this kind of work can be done and that it is important. However, it is one thing salvaging threatened heritage, but a different matter making sure that the collection is well taken care of for posterity, and hence the need to have proper curatorial facilities.
- Offered a challenge to the government and national stake-holding institutions that they must therefore take upon themselves the responsibilities to provide not only the space for the repository of the collection, but also qualified manpower.
- Shown the government that it should not wait for a project like this to mitigate the loss of rare and scientifically important specimens. Rather, it should conceive of a program to monitor the exposures at DK and other site, on a regular basis, especially during and after the rainy seasons. Such work could be done by two of the local workers who can easily recognize and identify fossil bones and artifacts. To this end, the government through the responsible Department of Antiquities is challenged to develop Cultural Resources Management Programmes and see to it that they are effective.

Dissemination of Results:

- A paper co authored by C.Msuya, L. Belton and the PI has been prepared for publication in *Journal of Field Archaeology* . Anticipated Publication dates 2005. Another one is in the pipeline for publication in *Nyame Akuma Newsletter*
- Reports have been prepared and submitted to the Government of Tanzania.

- Plans to prepare a monograph on the last three years are under way, but a publisher has yet to be found.
- Several interviews with the local news media, both the press and TV have taken place and other are in the pipeline