

Letters to the Editor

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The Oldoway Human Skeleton

IN NATURE of June 18, 1932, page 903, Prof. D. M. S. Watson and C. Forster Cooper discuss further the question of the Oldoway human skeleton. I should be grateful for space to reply to certain points raised by them.

They state: "Dr. Leakey now claims that the skeleton was buried in Bed 2 before Bed 3 was deposited over it. This involves the supposition that the deposition of the materials of Bed 2 took place in water so shallow that a bedding plane was at one time exposed to air and sufficiently dried to allow men to walk over it and dig a grave in it." I simply cannot agree that any such supposition is necessarily involved. Bed 2 is a shallow water deposit and its surface may have dried up as they suggest; but there is another explanation equally possible: that the body of Oldoway man was deposited into the deposits of Bed 2 *under water*. Even to-day in certain circumstances, some native tribes dispose of the bodies of undesirables, such as suicides, in just such a way, "so as to prevent the spirit from escaping". Possibly the idea of a burial under water had not occurred to my critics.

Concerning the rate of erosion, my own estimate is that at a time less than fifty years before Prof. Reck came to Oldoway, the site where he found the skeleton was covered by a deposit consisting of a very small relic of Bed 3 overlain by Bed 5 and the steppe lime. The rate of erosion can be estimated fairly accurately from certain facts, and if anything, I believe my estimate is on the conservative side. Moreover, I do not remember ever having mentioned "survey pegs inserted by Prof. Reck in 1913"; for they do not exist. What we did find were the stumps of the corner posts of the hut erected by Prof. Reck over the skeleton while he was working on it. Experiment shows that these posts, if they were to hold the weight of the hut, must have been inserted at least eight inches into the ground, and the hut was erected on the flat. When we found them, erosion on the flat had been such that one of the post stumps had fallen and the others were sticking a bare two inches into the ground. In other words, erosion on the flat had been about six inches between 1913 and 1931.

Actually, of course, erosion does not go on at a constant rate, but the cliff face has receded between 1 ft. 6 in. and 2 ft. since Reck was there in 1913. If Prof. Watson and Mr. Forster Cooper had seen the site, I cannot believe that they would still contend that the skeleton represents a relatively recent burial.

I agree that the mere fact that the bones of the Oldoway skeleton are as much mineralised as others from Bed 2 (though less so than bones from Beds 3 and 4) is of itself evidence of no great value, but I would like to point out that Messrs. Mollison and Giesler, after a very careful study of the amount of organic matter remaining in the bones, formed the conclusion that the skeleton was not younger

than Magdalenian. I would further point out that, so far as I understand them, Messrs. Mollison and Giesler do not dwell on the resemblances to the Masai. Their argument is rather that "as we find certain Oldoway characters among Hamites it is quite possible that these characters are of old standing in Africa and form one element (perhaps mixed with negro) among the Hamites". This is very different from a statement that Oldoway man resembles the Masai who still inhabit the district.

My criticisms and replies to other points raised in the letter must be reserved for our detailed report. I must, however, add that I do regard the discovery of the Kanam mandible and the Kanjira skulls as relevant to the Oldoway problem, in that they at least show that *Homo sapiens* was in existence at the time when Bed 2 at Oldoway was being formed.

L. S. B. LEAKEY.

(Written in camp at Oldoway. Aug. 14, 1932.)

P.O. Box 40,

Limuru,

Kenya Colony.

HAVING recently visited Oldoway, and having studied the geological sections there displayed, especially with the view of evaluating evidence for or against the Bed 2 age of Oldoway man, I am deeply interested in Prof. Boswell's letter in NATURE of Aug. 13, under the above title, and I should like to offer the following remarks.

Average samples of the beds were taken and these were studied in the laboratory by Mr. W. C. Simmons, senior assistant geologist on my staff, who has considerable experience of such work, and from my own investigations and the work of Mr. Simmons I personally have no objection to the post-Bed 4 age of the human remains. Indeed, field studies have inclined me to the view that Oldoway man is probably of Kenya Aurignacian date, and from personal knowledge of the site I am persuaded that he is pre-steppe limestone. Prof. Boswell and Dr. Solomon have, I consider, shown the human fossil to be younger than Bed 4, but I contend they have not done more than that; at any rate, it would so appear from the former's letter. The fact that the matrix from between the ribs contains bits of concretionary limestone containing a mineral characteristic of Bed 4 does not prove the burial to be post-Bed 5, for Bed 4 contains concretionary limestone, and for that matter so do the other beds, not excluding Bed 2, a fact to which I particularly directed Dr. Leakey's attention.

E. J. WAYLAND.

In Camp,

Nsongezi,

Kagera River, Uganda.

Sept. 17.

Lubricating Oils and Cancer

IN connexion with a recent note on emulsification,¹ Mr. W. T. Astbury has directed our attention to the latest report of the Manchester Committee on Cancer. According to the *Times* abstract from this report, "the addition of a small quantity of saponifiable oil to the lubricating oil reduces markedly the number of tumours induced. No oil surpasses lanolin in this respect. The substitution of lanolin for castor oil as a protection for oil workers has markedly lessened dermatitis among them, particularly if the workers