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**THE HUMAN BONE WITH POSSIBLE MARKS OF HUMAN TEETH  
FOUND AT LIVENI SITE (CUCUTENI CULTURE)**

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The settlement from Liveni is located in the East of Botosani County, on the right bank of the river Prut, on the border between Romania and the Republic of Moldova. It belongs to the end of the B phase of the Cucuteni- Tripolie Culture in the Eneolithic (The Copper Age). The bony remain that we present below was found in the fauna material consisting of housing remains (archaeozoological) given to us for studying by Maria Diaconescu, who made the archaeological diggings in the respective site.

The bony fragment comprises a large part of the diaphysis of the left femur, the epyphysis lacking, together with a joint portion of theirs with the diaphysis so, superior, the bony fragment begins at a centimetre under the level of the small trochanter, and inferior, it reaches beyond the bifurcation of the rough line, being also present a portion of the popliteal area. For the general reconstruction of the bony fragment, a present femur was used from the collection of the Animal Morphology Laboratory.

This femur was equally long as the fragment investigated. The maximum and the physiological length were taken on this bone, but all the other measurements were carried out on the segment found.

**Measurements, indices, discussions, conclusions**

Maximum length	mm(446)
Physiological length	mm(443)
Antero-posterior diameter of the dyaphysis	mm 28
Transversal diameter of the dyaphysis	mm 89
The index of robustness	12.41 (strong)
The pilaster index	(110) medium siye
The index of flatting	103 absent, even stenomorph
The middle height of the individual	1.67 (slightly over medium)
Sex	male (almost certain)
Age	mature, probably

After we have shown the morphological and biometric characteristics of the femur fragment and we have deduced the above mentioned, we mention that in two of its portions, there is observed on the posterior part of the diaphysis, on the right of its rough line, traces resembling in a way with those left by imprints of human teeth, relatively deep imprinted on the bone surface. One of the zones – we name it superior, begins at over two centimeters towards up right of diaphysal nutritive orifice and it stretches, superior, at over 40 millimeters, about as much as it comprised a bite of the human superior maxilla with anterior teeth (four incisors and two canines). The second zone, we name it inferior, also goes towards up right, approximately from the point in which the rough line is bifurcated, extending itself also on a similar length of over 40 millimeters towards nearly six centimeters to the nutritive orifice. We mention that the superior zone with marks is situated more medial, passing even slightly over the rough line and that these are arranged on two registers, the inferior one is found more lateral of the rough line, towards right and the marks are observed only on a single register.

It is known that the man can bite like many other mammals. Thus, the mouth is opened by the coming down of the mandible, a descent realized through the contraction of the mandible abductory muscles, but also due to gravity. A beginning of its closing, the anterior teeth of the superior maxilla are leaned upon the tear surface and while the lower mandible rises through the contraction of the mandible adductory muscles (they are very strong) in order to close the mouth, the upper anterior teeth slip towards back, taking part of the tear, imprinting themselves at the time, the mark where a harder substratum exists (in the present case the "fresh" bone).

If indeed the marks on the femur are due, as we can see, to some human teeth, we have to conclude that we are in the presence of a phenomenon of antropophagy, but if it really existed (such as in some still unevolved peoples, that they were practising it up even in the 19<sup>th</sup> century) it was altogether limited, being of a cultic, ritual nature.

We have to remark that the respective marks come neither as a result of a bite of carnivorous mammal (dog) nor of a pig. But the marks we are talking about might be considered to have been caused by the action of the incisors of some rodent species, may be commensale, that gnawed respective bone. We do not have in the past and present Holocen fauna in our zone of Europe any large sized rodent species with incisors so wide as a part of the marks on the femur in case. Even more, in our Eneolithic there we did not find yet the species of the genus *Rattus* (the

black and the grey rat) that have reached under the form of commensals to Europe, chronologically much later, brought from South Asia.

In fact, they also have incisors, however narrower than some of the marks. A larger rodent from Romania would be the mole rat – the *Spalax* genus that bites strongly but it is typically herbivorous, but, at the same time, its incisors are narrower than a part of the marks. The only rodent, large indeed, is the beaver, the *Castor* genus, recently disappeared from Romania, because in the Eneolithic it existed almost certain in zone, taking into consideration the biotop – the bank of the river Prut. But, the beaver is exclusively herbivorous and it can “bite” possibly in case when it defends itself, so it has been a living man and not a “fresh” bone belonging to a dead person. On the other hand, the beaver has indeed the medial incisor I<sup>1</sup> approximately 9-10 mm in width as well as at the most width marks, but in the beaver there is not the I<sup>2</sup> incisors (lateral) as in the human being, which are narrower than 9-10 mm. The beaver as all the other rodents has no canins.

We have to remind that within the Ariusd – Cucuteni – Tripolie Culture, there were found through diggings, here and there, dissparate human bones too (no complete skeletons at all). There is no definite necropole, what the people of this well known culture were doing with the human remains being an unsolved problem up to now.

It is the merit of Alexandra Bolomey (BOLOMEY 1982) that, in an ample paper published in the ninth decade of the last century, made a review of a series of these human remains, found within the respective culture, reaching, among others to the conclusion that, at least partly, they have a cultic character and maybe even there was an antropophagy of cultic type.

It is altogether necessary that the archaeologists should further gather these human remains, many of them disparately. The problems raised above might be solved in the future only this way.

Translated by *Monica Popa*

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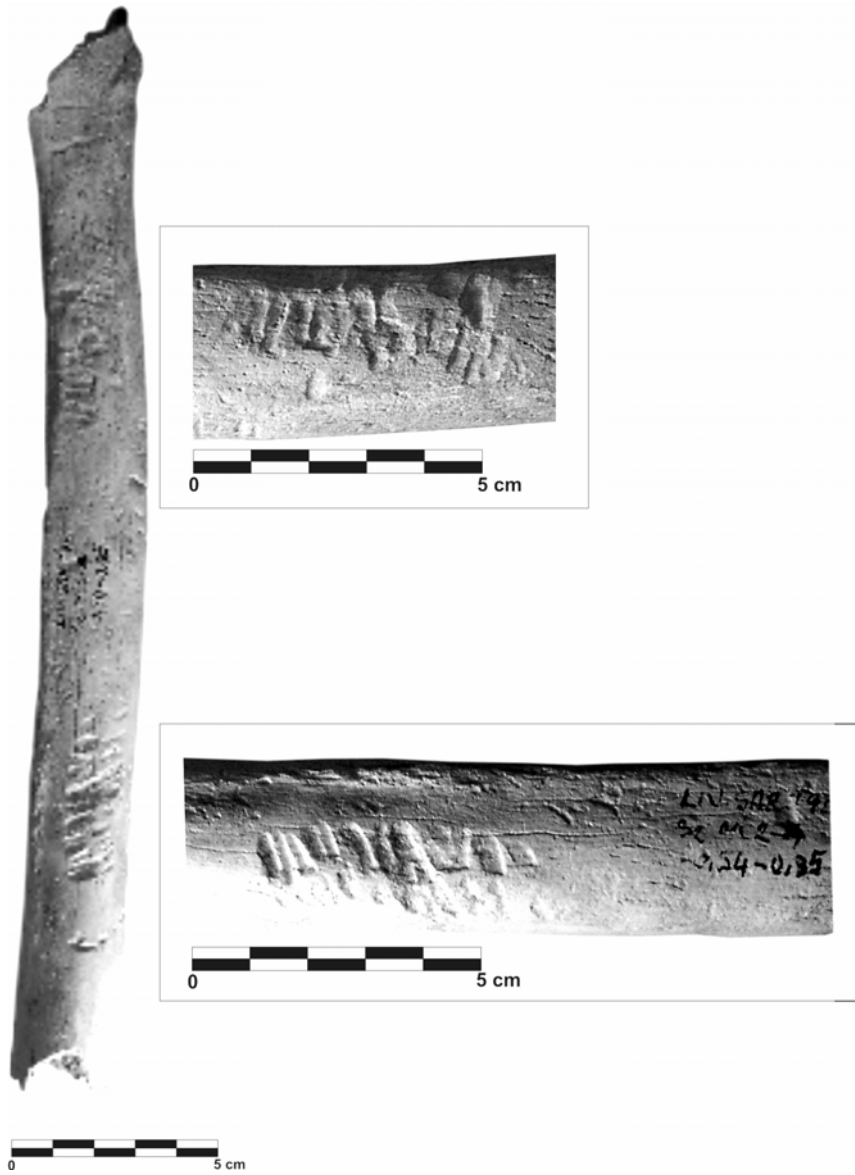


Fig.1. The femur bone with the presentation of the teeth marked zones.