

Fossil Artefacts from State of Jalisco (Mexico) and their Comparison with some Prehistoric Artefacts

FEDERICO A. SOLORZANO

Some of the artefacts presented here were included in earlier papers submitted at other meetings, in minor publications of the Instituto Nacional de Antropología e Historia (I.N.A.H.), and in private publications. For others, this is the first time these examples are presented in a conference and before research specialists dedicated to the study of "bone modifications."

The specimens come mainly from the lake beds of Chapala and Zacoalco in the State of Jalisco, Mexico. They can probably be considered to form part of alluvial lag material, which correspond to seasonal rain flows. These lag deposits occur at the edges and bottoms of the aforementioned lakes.

The artefacts were fashioned from late Pleistocene animal bones and exhibit varying degrees of petrification. Those coming from Chapala are petrified with silica and are colored black or very dark gray; those from Zacoalco are also petrified with silica and colored in different hues of gray, brown and other colors. Examples exhibiting a white pigmentation come from Tecolotlan, Jalisco, and are petrified with calcium carbonate.

The modification of the bones before petrification consists of making cutting edges, points, borings (perforations), etc. In the case of the mammoth long bone fragment, rectangular cuts occur on the outer bone cortex and hollowing of the marrow is evident. In other cases, small canals, grooves and fine parallel lines, which might show they were man-made and give clues for their probable use.

Specimens are also included which show modifications due to the effects of gnawing or biting by carnivorous animals. Here the traces left by molars and fangs in scratching, cutting, boring and chewing are clearly visible. These are included as comparative material to distinguish and differentiate the man-made work from that produced through the action of carnivorous animals or other agents.

Also presented is bone material of prehispanic origin showing cutting edges, borings, etc., very similar to the fossil artefacts. These come from garbage mounds or waste material from workshops or places where these artefacts were manufactured. The prehispanic specimens might have ages corresponding approximately to the Classic or Late Classic. They are included to compare manufacturing techniques which perhaps had been continuously used for a very long time; these have made it possible to interpret the earlier fossil artefacts which show polished surfaces, very smooth angular borders, protuberances, etc., which might otherwise be very difficult to interpret.

It might be suggested that in other countries, bone material be used of similar age to prehispanic Mexico, or, lacking this, from the Neolithic for comparing purposes. In this manner the shapes, superficial changes, lines, ridges, grooves,

33

etc., found in possible fossil artefacts can be better interpreted. This may be especially true when these objects present in addition signs of erosive action.

It might furthermore be suggested that studies of ethnographic bone material be made, as this would provide a sequence and continuity from prehistoric times, through the Neolithic (in Mexico's case the prehispanic), ending with the ethnographic or recent periods. This would provide good comparative examples as regards lines, tracings, grooves, etc., making it possible to interpret the possible artefacts more accurately.

The age of the specimens presented is very difficult to establish as it is not believed these fossils are to be found in their original geologic stratum, as these were dragged and deposited at the bottom of lake beds. It might therefore be inferred that if these artefacts were made of bones belonging to Upper Pleistocene fauna, a conservative age between 30 to 20 thousand years B.P. could be assigned to them, without excluding the possibility of an even much greater age.

Human bone fragments have been found with the same characteristics of petrification, consistency, coloration, etc., possessed by the artefacts and other fossils. It will therefore be possible to date these bones directly with the most recent dating procedures.