

A TAPHONOMIC ANALYSIS OF OHIO HOPEWELLIAN MODIFIED ANIMAL JAWS FROM TREMPER MOUND

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ABSTRACT of a Master's Thesis in Human Biology at the University of Indianapolis
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A taphonomic analysis and a comprehensive inventory was conducted on a cache of modified animal jaws that were among the many artifacts and cremated human burials discovered within the prehistoric Tremper Mound (Ohio). The artifacts, which are attributed to the Ohio Hopewellian tradition, comprise the largest cache of Hopewellian worked animal jaws yet discovered. The assemblage affords a remarkable opportunity to study various forms of bone modification and to examine the range of variability in modifications to artifacts of this nature. In addition to 189 disassociated teeth and tooth fragments and 55 small undiagnostic fragments of mandibles and maxillae, the cache consists of 16 mountain lion fragments (MNI = 7), 32 bear fragments (MNI = 13), nine canid (MNI = 5) and four bobcat (MNI = 2) specimens. Every artifact in the assemblage has been burnt and ground. Many of the artifacts show evidence of ochre application or staining, several artifacts are notched, some are polished, and several display striations from abrasion.

In order to elucidate the method of manufacture used to create the Tremper jaws, experimental replication was conducted using scraping, grinding, and score-and-snap methods of manufacture. Dry and fresh human and non-human mandibles were used to recreate typical Hopewellian modified jaws, such as those found in the Tremper assemblage and at other Hopewell sites. Sandstone slabs were used for the grinding experiments, while chert flakes from an Indiana archeological site were used as tools for the scraping and score-and-snap experiments.

The morphological characteristics found to be associated with the ground exemplars are displayed on the Tremper material, while those characteristics associated with the scraping and score-and-snap methods are not. This suggests that the Tremper artifacts were created by a grinding method of manufacture. The experimental data also suggests that there are no qualitative differences between the resultant morphology of bone ground in the dry or fresh state, or between ground human and non-human exemplars. Therefore, animal bone may be a good model for actualistic research concerning bone surface modifications when taphonomic alterations of human bone are under investigation.

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