1. INTRODUCTION

The site of Ambrona is situated in the province of Soria, in the north side of the Castillan branch of Cordillera Iberica (Iberian Range), in the Masegar (also called Arroyo de la Mentirosa) river valley. The Masegar is a left side tributary of Jalon river. Elephant remains mentioned here come from the lower levels (“Lower Member Complex”) of Ambrona (Santonja & Pérez-González 2000, in this volume), where the levels AS1, AS1/2, AS2, AS3, AS4, AS5 y AS6 were defined from bottom to top. (Pérez González et al. 1995-97).

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The name of Ambrona, like the site of Torralba in the nearby, is associated to an archaeological settlement with plenty of elephant remains interpreted classically as a kill and butchering site since the beginning of the XX century (Cerralbo 1913), till Howell et al. (1995). We proposed that Ambrona is an elephant natural burial site, many remains have been transported while others remained in situ (Pérez González et al. 1995-97).

Nevertheless, some of the animal remains appear to have been butchered or scavenged by man.

2. THE MAMMALIAN FAUNA

The micromammalian fauna of the Ambrona “Lower Member Complex” is Crocidura sp., Microtus brecciensis (Giebel 1847), Arvicola aff. sapidus (Miller 1908), Apodemus aff. sylvaticus (Linnaeus 1758) Oryctolagus sp. (Sesé 1986) The age defined by this fauna is of a typical or advanced Middle Pleistocene in the sense of Sesé & Sevilla (1996).

The identified macromammals from the recent excavations held by the authors from 1993 to 2000 are: Canis lupus Linnaeus 1758, Panthera sp., Elephas (Palaeoloxodon) antiquus Falconer & Cautley 1847, Equus caballus torralbae Prat 1977, Stephanorhinus hemitoechus (Falconer 1868), Capreolus sp., Cervus elaphus (Linnaeus 1758), Dama cf. dama (Linnaeus 1758) and Bos primigenius Bojanus, 1827. The association of Elephas (Palaeoloxodon) antiquus, Stephanorhinus hemitoechus, Equus caballus torralbae and Bos primigenius), confirms the Middle Pleistocene age for Ambrona.

SUMMARY: This paper deals with the fauna of macromammals from the lower levels “Lower Member Complex”) of the Ambrona Middle Pleistocene site. Elephas (Palaeoloxodon) antiquus, remains are the most abundant in almost all the levels, varying between 28% and 38% of the total. Although elephants predominate, the Ambrona assemblage contains a very diversified fauna with at least nine different species.
3. ANALYSIS OF THE MACROMAMMAL FAUNA

Elephant remains are undoubtedly predominant among all the macromammals remains. Nevertheless, the distribution of remains by species is very different among the levels.

The most abundant and better preserved elephant remains are found in the levels AS3 y AS4. In 1995 was found in AS3 an assemblage of about 90 bones corresponding to an MNI of 3: one juvenile, one adult female and one adult male. The remains of the last one formed the so-called “concentration alpha”, with almost a whole carcass: cranium, the whole mandible, both tusks, 17 vertebrae, the right humerus, ulna and radius of both sides, some carpals and metacarpals bones, the whole pelvis and a distal fragment of the right femur that could be related to the complete left femur found in the 1993 campaign and one tibia. Finally one fibula found in the 1993 campaign could correspond to this individual. In sum it would be there 3 individuals: the individual A determined exclusively by a cranial remain, the individual B by a male tusk and the individual C, an adult male to which belong all the above-mentioned remains.

This is a singular concentration because almost all the anatomic parts are represented, many of them in their anatomic natural position and some in connection, this indicates no or little transport. This kind of concentration has never been found in other areas of the site where the remains are more disperse and fragmentary.

The dispersion of the bones of the “concentration alpha” is similar to those of Shabi Shabi and specially to those of Nehimba described by Haynes (1991).

On the other hand, from a total of 1320 fossil specimens, the identification percentage varies between 42.47% in AS2 and 53.55% in AS1. That gives an idea of the fragmentation grade of the bones The last figure is very similar to the obtained by Cruz-Uribe & Klein (1986) and Howell et al. (1995) in the Lower Member Complex.

The best preserved faunal remains were found in the levels AS3 and AS4 associated with the more clayey facies. Meanwhile in the more detritic facies the remains are very fragmented and eroded (Villa et al., 2001).

Regarding the Table 1, we can make the following considerations:

AS1 and AS2 are very detritic levels, thus the remains are more fragmentary than in others.

In AS1, 105 out of a total of 338 remains are of elephant, which represents 31.07%. The following best represented species is Dama cf. dama with 12 remains, that is: 3.55%. In this level was found the unique identifiable remain of rhinoceros: a mandible of Stephanorhinus hemitoechus.

In AS1/2, 14 out of 50 records are of elephant, that is 28%.

Tab.1 - Number of remains and percentage by taxa in each level.

<table>
<thead>
<tr>
<th>TAXA</th>
<th>AS1</th>
<th>AS1/2</th>
<th>AS2</th>
<th>AS3</th>
<th>AS4</th>
<th>AS5</th>
<th>AS6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canis lupus</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Panthera sp.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Camelops indet.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Elephas antiquus</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>cf. Elephas</td>
<td>3</td>
<td>0.86%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>cf. Equus</td>
<td>1</td>
<td>0.30%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>cf. Grevy's</td>
<td>9</td>
<td>2.66%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>cf. Gorilla</td>
<td>8</td>
<td>2.44%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>cf. Bos primigenius</td>
<td>2</td>
<td>0.59%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NID</td>
<td>157</td>
<td>46.49%</td>
<td>25</td>
<td>59.00%</td>
<td>42</td>
<td>57.63%</td>
<td>227</td>
</tr>
<tr>
<td>TOTAL</td>
<td>338</td>
<td>100.00%</td>
<td>50</td>
<td>100.00%</td>
<td>73</td>
<td>100.00%</td>
<td>460</td>
</tr>
</tbody>
</table>
In AS2, 23 out of 73 records are of elephant, that is 31.5%.
In AS3, 175 out of 460 records are of elephant, that is 38.04%.
In AS4, 112 out of 382 records are of elephant, that is 29.32%. It is worthwhile to mention that this is the only level where Capreolus sp. is represented by a single remain. It is remarkable that this is also the level that shows the highest faunal diversity, where almost all the taxa, except the rhinoceros, are present. This fact, added to the relative abundance of some species characteristic of temperate climatic conditions, as for instance Dama cf. dama and Capreolus sp, seems to indicate a relatively better climate.
In AS5 only 6 specimens were found and two of them are elephant remains.
In AS6 there is only one horse remain.
Elephant is, as the Table 1 shows, the most abundant species in each Lower Member Complex level from AS1 to AS5. Its NISP is near or above 30% of the NTSP in each level.
The following species most abundant by NISP are: Dama cf. dama and Cervus elaphus, both occur in each Lower Member Complex levels from AS1 to AS4. Dama cf. dama is the best represented cervid species at the site. The percentage of Dama cf. dama remains reaches 6.81% in AS4. Bos primigenius and Equus caballus torralbae are the following species in abundance.
Carnivores are sparse: Panthera sp. is represented by one remain in AS3 and other one in AS4 which could belong to the same individual; Canis lupus with three remains in AS4 and small carnivores non identified in AS3 and AS4.

3. Conclusions

The elephant, Elephas (Palaeoloxodon) antiquus, is the predominant species among the macromammals in all the levels of the “Lower Member Complex” at the Ambrona Middle Pleistocene site. Nevertheless, the macromammals assemblage of Ambrona is a very diversified fauna with two species of carnivores at least, one species of elephant, two perissodactyles and four artiodactyles. This variety, and the abundance of some species of cervids, indicates a relatively temperate climatic conditions, specially in some levels as the AS4 that shows the highest diversity. We suggest that the dispersion of the bones of the “concentration alfa”, an almost complete carcasse of an adult male elephant, is similar to some actual concentrations of bones described in Africa (Haynes 1991).

4. References
