

## **Spreadsheets Summarizing Archaeological and Paleontological remains from each for Stratigraphic Levels**

### **Spreadsheet IN.40.**

**Pin Hole Cave.**

**Date 1875.**

**Excavator. Magens Mello.**

**Title. Stratigraphic Distribution of Vertebrate Remains within the Cave Entrance.**

Vertebrate species and their anatomical parts which reported by Mello and described and compared with vertebrates that survive today within existing museum collection. Much of the material survives but unfortunately the remains of Arctic Fox (*Alopex lagopus*) and Wolverine (*Gulo gulo*) cannot be found today. Many of the remains reported by Mello survive today within the collections of the Manchester University Museum and the British Museum, Natural History.(110 Items}

### **Spreadsheet IN. 41**

**Pin Hole Cave.**

**Date 1875.**

**Excavator Magens Mello.**

**Identifications. Jenkinson and Wilkinson.**

**Title. Stratigraphic Distribution and Anatomical Parts of Species Discovered in the Red Sand**

.

A total of 117 vertebrate bones are identified to 14 species and the two missing species, Arctic Fox and Wolverine are additionally listed. Also listed are Sheep and Rodents whose remains are thought to be modern. Although Mello was disappointed with the finds many Quaternary species were discovered in relatively low numbers. An unusual find at the time was the discovery of four fish species, the first from any Creswell Cave and which included Salmon (*Salmo sp*), Grayling (*Thymallus thymallus*), Chub (*Leuciscus cephalus*) and Eel (*Anguilla anguilla*)..(208 Items}

## **Spreadsheet IN.42**

**Pin Hole Cave.**

**Date 1875.**

**Excavator Magens Mello.**

**Title. Attrition State of Vertebrate Bones from Mellos Excavation.**

.

Attrition state is described for 115 of the vertebrate bone fragments, which are dominated by fractured bone, associated with 21 carnivore gnawed pieces.(208 Items}.

## **Spreadsheet IN.43**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson.**

**Title Stratigraphic Distribution and Description of Middle Palaeolithic Artifacts from levels 6-12**

Armstrong grouped artifacts from the lower Stratigraphic levels of the cave into two separate assemblages and 116 of these are included within the spreadsheet. In both assemblages there are roughly equal number of both flint and quartzite examples. Many of the artifacts are simply fabricated bifaces, which are variously described as choppers, bifaces, and scrapers and utilized flakes.(98 Items}.

## **Spreadsheet IN.44.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson.**

**Title Stratigraphic Distribution and Description of "Early Upper Palaeolithic" Invasively Retouched Artifacts.**

The stratigraphic distribution of 72 artifacts is described in the spreadsheet. Their typology suggested to Armstrong that they were similar to European Middle Palaeolithic (Mousterian) assemblages and further studies by John Campbell in 1977 have referred to them as the Early Upper Palaeolithic within the UK. It is now clear that the style of invasive retouch and artifact form are more similar to the LRJ (Lincombian-ranisian-Jeromanowician) assemblages known from Eastern Europe where they are thought to be the work of Neanderthal groups and therefore of Middle Palaeolithic age. Their context within Pin Hole Cave is not well understood despite the fact that the assemblage has stratigraphic integrity they occur on top of a major hiatus in sedimentation that separates them from the lower Middle Palaeolithic (Later Middle Palaeolithic in the UK) assemblage. Despite several studies, their age within the cave is not known. Artifacts from this assemblage are entirely of flint and display sophisticated fabrication.(72 items)

**Spreadsheet IN.45.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson.**

**Title Stratigraphic Distribution and Description of the Later Upper Palaeolithic and Mesolithic artifacts.**

Evidence for the Upper Palaeolithic and Mesolithic occurs within Stratigraphic levels 0-5 and includes 138 flint artifacts, 2 bone tools, and 7 engraved bones a bone pendant and 4 fossils. Many of the flint artifacts are very similar to tool forms known from Upper Palaeolithic assemblages in adjacent cave sites. In the upper levels, smaller microlithic types occur in association and which may indicate a local development or change in functionality in the closing stages of the Upper Palaeolithic.

The identified vertebrate population known from the cave is extensive. A total of 29374 vertebrate bones are identified to 175 species and 20 genera making the site one of the richest and most diverse pieces of evidence within the UK. The diversity of bats birds and fish, some of which are only known from this site is

extremely unusual .The details of stratigraphic occurrence for each species and genera are described in the spreadsheets below.(152 Items}.

**Spreadsheet IN.46.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell, Stebbings, Wilkinson.**

**Title. Stratigraphic Distribution of the Vertebrate Population of Pin Hole Cave  
(29274 Items}**

**Spreadsheet. IN.47**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell, Stebbings and Wilkinson.**

**Title Species, Genera and Anatomical Description of Vertebrates from  
Stratigraphic Level 0.**

The spreadsheet describes 1209 vertebrate bones identified to species or genera and representing 180 individuals. Unusual occurrences include Puffin (*Fractercula arctica*), Reed Bunting (*Emberiza schoeniclus*) and Snow Bunting (*Plectrophenax nivalis*) and Duck or Geese egg shell fragments.

.(1388 Items}

**Spreadsheet. IN.48**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for Vertebrate Species and Genera from Stratigraphic Level  
0.**

(1349 Items}

**Spreadsheet IN.49.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell, Stebbings and Wilkinson.**

**Title Species, Genera and Anatomical Description of Vertebrates from Stratigraphic Level 1.**

The spreadsheet describes 2090 vertebrate bones identified to a diverse range of species and genera and derived from 215 individuals. Unusual occurrences include Ground Squirrel, (*Spermophilus major*}, Ringed Plover (*Charadrius haiticula*}) and Corn Bunting (*Miliaria calandra*}).(2806 Items}

**Spreadsheet IN.50.**

**Pin Hole Cave.**

**Date. 1924 onwards**

**Excavator Leslie Armstrong.**

**Title. Attrition State for Vertebrate Species and Genera from Stratigraphic Level 1.**

(3061 Items}

**Spreadsheet IN.51**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell, Stebbings and Wilkinson.**

**Title Species Genera and Anatomical Description of Vertebrates from Stratigraphic Level 2.**

.

A total of 1867 vertebrates bones are identified to 68 species or genera which include the species Wild Cat (*Felis sylvestris*}, and the unusual remains of Bat species, The range of bird species is extensive and includes those of Geese, Merganser, Puffin, Eagles, Owls and Woodland birds. Reptile remains the only evidence from the cave for an unknown lizard. (1808 Items}

**Spreadsheet IN.52.**

**Pin hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title Attrition State for Vertebrate Species and Genera from Stratigraphic Level 2**

**{1630 Items}**

**Spreadsheet IN.53.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell, Stebbings and Wilkinson.**

**Title Species Genera and Anatomical Description of Vertebrates from Stratigraphic Level 3.**

The stratigraphic level contained 6873 vertebrate bones, which have been identified to 77 species or genera. Unusual occurrences include Polecat, Stoat. The very wide range of bird species include six species of Duck and Geese, Osprey, Hawk Owl, Plovers, Corn Bunting and Rose Breasted Grosbeak{4570 Items}

**Spreadsheet IN.54.**

**Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for Vertebrate Species and Genera from Stratigraphic Level 3.**

**{4203 Items}**

**Spreadsheet. IN.55.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications Jenkinson, Bramwell, Stebbings and Wilkinson.**

**Title Species, Genera and Anatomical Description of Vertebrates from Stratigraphic Level 4.**

Stratigraphic Level 4 contained 1587 vertebrate bones, which were identified to 67 species and genera. And where the bone frequency is much less than surrounding levels. Notable occurrences include Crag Martin (*Ptyonoprogne rupestris*), Tit and Finch species and Crossbill (*Loxia curvirostris*). (1579 Items)

**Spreadsheet NI.56**

**Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title Attrition State for Vertebrate Species and Genera from Stratigraphic Level 4.**

(1591 Items)

.

**Spreadsheet IN.57.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell, Stebbings and Wilkinson.**

**Title Species, Genera and Anatomical Description for Vertebrates from Stratigraphic Level 5.**

Total of 1098 vertebrate bones are identified to 53 species and genera, which include the unusual occurrence of Wading birds. Whimbrel (*Numenius phaeopus*) Snow Bunting (*Plectrophenax nivalis*) and Anseriformes eggs (1098 Items)

**Spreadsheet. IN.58.**

**Pin Hole Cave.**

**Date 1924.**

**Excavator. Leslie Armstrong.**

**Title Attrition State for Vertebrate Species and Genera from Stratigraphic Level 5.**

(1714 Items}

**Spreadsheet IN.59.**

**Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell. Stebbings and Wilkinson.**

**Title Species, Genera and Anatomical Description for Vertebrates from Stratigraphic Level 6.**

A total 1669 vertebrate bone fragments were identified to 41 species and 6 genera which are described according to anatomical part. The species Garganey (*Anas querquedula*) Common Gull (*Larus canus*) and Kingfisher (*Alcedo atthis*) are unusual occurrences. (1646 Items}

**Spreadsheet IN.60.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title Attrition State for Vertebrate Species and Genera from Stratigraphic Level 6.**

(1648 Items}

**Spreadsheet IN.61**

**Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator. Leslie Armstrong.**



**Identifications. Jenkinson, Bramwell and Wilkinson.**

**Title. Species, Genera and Anatomical Description for Vertebrates from Stratigraphic Level 7.**

.

Vertebrate species are represented by 1097 bone fragments derived from 81 individuals. In addition to large mammal species the level contains a bird and fish population.(1042 Items}

**Spreadsheet. IN.62**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title Attrition State for Species and Genera from Stratigraphic Level 7.**  
(1119 Items}

.

**Spreadsheet. IN.63.**

**Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell and Wilkinson.**

**Title Species, Genera and Anatomical Description for Vertebrates from Stratigraphic Level 8.**

Vertebrate species are represented by bones derived from 52 individuals. The frequency of vertebrate is significantly lower than surrounding levels.  
(528 Items}

**Spreadsheet IN.64.**

**Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title Attrition State for Species and Genera from Stratigraphic Level 8.**

(532 Items}

**Spreadsheet IN.65**

**Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell and Wilkinson.**

**Title The Species, Genera and Anatomical Description of Vertebrates from Stratigraphic Level 9.**

.

Level 9 contains 627 vertebrate bones identified to a wide range of species which includes large mammals, an extensive rodent fauna, which includes Ground Squirrel (*Spermophilus* sp), and a bird population which includes geese and grouse. An extremely unusual record from this level is that of Demoiselle Crane (*Anthropoides virgo*).(641 Items}

**Spreadsheet. IN.66.**

**Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title. The Attrition State for Species and Genera from Stratigraphic Level 9.(646 Items}**

**Spreadsheet IN.67.**

**Pin Hole Cave.**

**Date 1924 onwards**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell and Wilkinson.**

**Title. The Species, Genera and Anatomical Description of Vertebrates from Stratigraphic Level 10**

A total of 944 vertebrate bones were identified and anatomically described to 25. species and 5 genera. Unusual occurrences include Snipe (*Gallinago gallinago*) and Pink Footed Goose (*Anser brachyrhynchus*).{(942 Items)}

**Spreadsheet. IN.68**

**Pin Hole Cave.**

**Date 1924 onwards**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for |Species and Genera from Stratigraphic Level 10**  
**.(939 Items}**

**Spreadsheet. IN.69**

**Pin Hole Cave.**

**Date 1924 onwards**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell and Wilkinson.**

**Title. The Species Genera and Anatomical Description of Vertebrates from**  
**Stratigraphic Level 11**

Vertebrates from this level are represented by 2045 bone fragments, which have been identified to a wide range of species. These include an extensive bird and fish population. Alpine Swift (*Apus melba*) is a very unusual record from this level..{(2045 Items)}

**Spreadsheet. IN.70.**

**Pin Hole Cave**

**Date. 1924 onwards**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for Species and Genera from Stratigraphic Level 11.**  
**(1175 Items}**

**Spreadsheet. IN.71**

**Pin Hole Cave.**

**Date. 1924 onwards**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell and Wilkinson.**

**Title. The Species, Genera and Anatomical Description of Vertebrates from Stratigraphic Level 12**

A total of 1157 vertebrate bones are identified and anatomically described to 38 species and 5 genera. These include a single molar of Hippopotamus (*Hippopotamus amphibius*) which is unlikely to be contemporary with the other vertebrate population and which may be a curiosity collected by Neanderthal groups. There is a possibility that it may have been derived from older deposits, yet to be excavated from the cave rear{1157 Items}

**Spreadsheet. IN.72**

**Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for Species and Genera from Stratigraphic Level 12.**  
{2050 Items}

**Spreadsheet. IN.73**

**Pin Hole Cave**

**Date 1924 onwards**

**Excavator. Leslie Armstrong**

**Identifications. Jenkinson and Bramwell.**

**Title. The Species, Genera and Anatomical Description of Vertebrates from Stratigraphic Level 13.**

Vertebrates are represented by 187 bone fragments, which are identified to 16 species and 4 genera. Although larger vertebrate are present the most frequent remains are those of Common Frog (*Rana sp*).{187 Items}

**Spreadsheet. IN.74**

**Pin Hole Cave.**

**Date 1924 onwards**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for Species and Genera from Stratigraphic Level 13.**

**(186 Items}**

**Spreadsheet. IN.75.**

**Pin Hole Cave.**

**Date. 1924 onwards**

**Excavator. Leslie Armstrong**

**Identifications. Jenkinson.**

**Title. The Species, Genera and Anatomical Description of Vertebrates from Stratigraphic Level 14.**

Five species and two genera are represented by 15 vertebrate bone fragments. Each species is represented by single or a very low frequency of fragments, which suggests that they may be derived from the overlying stratigraphic level.(15 Items}

**Spreadsheet. IN.76**

**Pin Hole Cave.**

**Date 1924.**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for Species and Genera from Stratigraphic Level 14.**

**(14 Items}**

**Spreadsheet. IN.77**

**Pin Hole Cave.**

**Date.1924 onwards**

**Excavator. Leslie Armstrong**

**Identifications. Jenkinson and Bramwell.**

**Title. The Species, Genera and Anatomical Description of vertebrates from Stratigraphic Level 15.**

.

A small vertebrate population of 17 individuals is represented by 38 bone fragments. These include the unusual marine species, Gooseander (*Mergus merganser*){40 Items}

**Spreadsheet. IN.78**

**Pin Hole Cave.**

**Date. 1924 onwards**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for Species and Genera from Stratigraphic Level 15.**  
(39 Items).

**Spreadsheet. IN .79.**

**. Pin Hole Cave.**

**Date 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson.**

**Title. The Species, Genera and Anatomical Description of Vertebrates from Stratigraphic Level 16.**

Level 16 has the remains of five individuals belonging to five species(39 Items}

**Spreadsheet. IN. 80.**

**Pin hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for Species and Genera of Vertebrates from Stratigraphic Level 16.**

(6 Items}

**Spreadsheet. IN.81**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson.**

**Title. The species, Genera and Anatomical Description of Vertebrates from Stratigraphic Levels 17,18,19.**

The lowest stratigraphic levels contain 9 vertebrate bone fragments which were identified to identified to Hyaena (*Crocuta crocuta*), Wild horse, (*Equus sp*) and Reindeer, (*Rangifer tarandus*) and several indeterminate fragments (8 Items}

..

**Spreadsheet. IN.82**

**Pin hole Cave.**

**Date. 1924 onwards**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for species and Genera of Vertebrates from Stratigraphic Levels 17.18.19.**

(10 Items}

.

**Spreadsheet. IN. 83.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Identifications. Jenkinson, Bramwell Stebbings and Wilkinson.**

**Title. The Species, and Anatomical Description of Vertebrates from Unknown Levels.**

(7201 Items}

**Spreadsheet. IN.84.**

**Pin Hole Cave.**

**Date. 1924 onwards.**

**Excavator. Leslie Armstrong.**

**Title. Attrition State for Species and Genera from Unknown Levels.**

The spreadsheet describes the identification of 7201 vertebrate bones to 72 species and genera according to their anatomical part. All of the remains, unfortunately lack accompanying locational information and are therefore

treated as unstratified. The collection includes some unusual elements including Black Throated Diver (*Gavia arctica*) Beswicks Swan (*Cygnus columbianus*) Curlew (*Neumenius arquata*) and fragments of Anseriform egg shell (7220 Items}

**Spreadsheet.IN.85**

**Pin Hole Cave**

**Date. 1985**

**Excavator. Rogan Jenkinson**

**Title. Summary of the Vertebrae remains from PI,block, a calcrete mass excavated from the Inner Chamber.**

**(1405 Items}**