

The Elephants at the Leonardo Da Vinci Institute in Rome

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SUMMARY: The Leonardo Da Vinci Technical Institute of Rome, founded in 1871, has a collection of mammal fossils typical of the Middle to Late Pleistocene period which were found mostly in areas in and around Roma. The majority of the items in this collection are the remains of *Elephas (Palaeodoxodon) antiquus* Falconer & Cautley, 1847, including two large tusks, one of which may be part of the cranium found during the construction of the Via Fori Imperiali, of which all trace has been lost and which was described in great detail by De Angelis D’Ossat (1932). The presence of this rich natural science collection documents the constant and continuous contact that the institute had with the University of Rome and numerous other Research Institutes between the end of the 1800’s and the beginning of the 1900’s.

1. INTRODUCTION

The Leonardo da Vinci Institute is one of Rome’s oldest schools. It was founded in 1871 on the German model of technical schools, under the authority of the Ministry of Agriculture. It consisted of four areas of study, two of which prepared students for entry into the University Faculties of Mathematics and Engineering. The study of Natural Sciences was considered important and was studied in depth, theory was supported by practice and experimental study (the students went fossil hunting and collected fossils and minerals in the Roman countryside. Collections acquired from prestigious Institutions and donations from private collectors and scholars were added to these finds). For this reason in the store-rooms of the school there are important exhibits, some of which are unknown even to the specialists. Among them there is a collection of vertebrate fossil remains, the most important examples of which are without doubt the remains of *Elephas antiquus* coming from the Roman countryside as the labels attached to some pieces lead us to believe.

2. THE ELEPHANT SAMPLES

The elephant samples, sometimes associated

with the scanty remains of Middle to Late Pleistocene mammals such as *Bos primigenius*, *Hippopotamus amphibius* and *Cervus elaphus* are mostly from sites in what are now urban areas of Rome.

2.1 Monte Sacro

These remains are from volcanoclastic deposits found in this area, finds which date back to the end of the 1800’s such as: a fragment of a tusk accompanied by a label signed by the scholar Mantovani, which reads: “Fragment of a gigantic tusk found in the Pleistocene clay mass of Monte Sacro, Rome: Right bank of the Aniene River”; a distal epiphysis of a femur of *Bos primigenius* (170mm long and 160mm maximum width) accompanied by a label that reads: “Inferior articulation cap of the femur of *Bos primigenius* found in the silt of the valley of the Aniene River. Monte Sacro on the Via Nomentana 4 km from Rome. Acquired by Clerici 1884”; the right tusk of *Elephas antiquus* (Fig. 1) as deduced by the identical matrix on both the tusk and on the articulation cap of the femur of *Bos primigenius* (accompanied by a dated label).

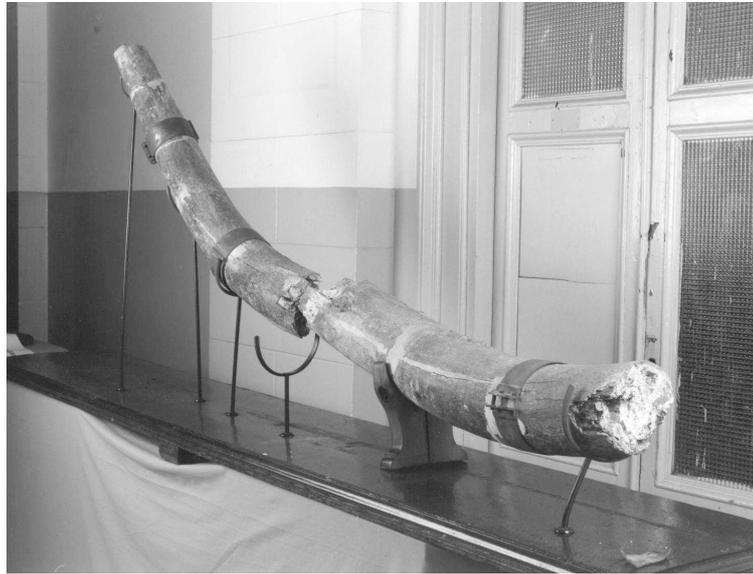


Fig.1 - The right tusk – Monte Sacro, Roma.

2.2 “Via dei Fori Imperiali” Site in the area of the Temple of Venus, and the area of the “Chiesa dei Santi Luca e Martina”

The excavations in Via dell’Impero, today known as Via dei Fori Imperiali, led to the finding of numerous specimens of *Elephas antiquus* (De Angelis D’Ossat 1932; Maccagno 1962).

The left tusk conserved at the Leonardo Da Vinci Institute is almost certainly from the cranium found during the excavations in 1932 and described in detail by De Angelis D’Ossat. Much data confirms this theory: its morphology, the external length from the alveolus to the apex (2450mm) and the diameter at the height of the mandible (approximately 200mm), its state of preservation also corresponds exactly to the measurements and description written by De Angelis D’Ossat. In the photograph taken at the time of the find there is also the cranium (Fig. 2) that is now probably to be found in the Musei Capitolini (Maccagno 1962) even though we cannot exclude that it has been lost, since De Angelis D’Ossat himself underlined its extremely fragile state.

This tusk is also fractured and one notes the clumsy attempt to reconstruct it, even utilising common cement (Fig. 3). This agrees well with De Angelis D’Ossat’s observations according

to which the tusk, after having been summarily consolidated in loco, was quickly removed and taken away by Dr Clini to the Municipal Antiquarium (in the Celio district near the Chiesa di San Gregorio), where minor archaeological finds were deposited. No tusk appears to be present among the fossil remains of the Antiquarium currently housed in the Museo della Civiltà Romana.

A mandible can also be traced to the same find with the last molars in place that corresponds to the illustrations and description of De Angelis D’Ossat. For the other remains (acetabulum and some molars of *Elephas antiquus*) one could hypothesise their provenance from the fluvio-lacustrine deposits lying above the volcanic outcrop along the western side of the Chiesa dei Santi Luca e Martina adjacent to the Campidoglio

Finally it must be said that in the Institute there are, as well as the remains of *Elephas antiquus*, finds of *Bos primigenius* and *Cervus elaphus* which were also found during the excavations of the Via dei Fori Imperiali.

2.3 Carini Site (Palermo, Sicily)

The Institute’s collection also includes a tusk from *Elephas mnadriensis* (Fig. 4) which was



Fig.2 - Tusk and cranium found during the excavations in via dei Fori Imperiali (1932).

donated to the school as the label reads: “Donation from P Gallegra 1885. Tusk found about 2 kilometres from the village of Carini (in the environs of Palermo, Sicily)”. The presence of this specimen leads us to believe that in the Institute at the end of the 1800’s there was a lively interest in the study of vertebrate fossils, and in particular of elephants.

3. REMARKS

Between the end of the 1800’s and the beginning of the 1900’s the Leonardo Da Vinci technical Institute was a true “Research Institute” as

its many important natural science exhibits testify (fossils, minerals, marble, rocks etc) and it also had close contact with University Institutions. These contacts we can deduce from the labels accompanying many samples, documentation in the archives, from the description of the scientific experiences described in the annals of the Institute and also from the plaster casts of two ichthyosaurs, the originals of which are to be found in the Museo di Paleontologia of Università degli studi di Roma “La Sapienza”. We must not forget that here at the Institute there was a department of study for preparation for entry into the Faculty of Engineering.



Fig.3 - *Elephas antiquus* tusk – via Fori Imperiali – Roma.



Fig.4 - *Elephas mnadriensis* tusk – Carini, Palermo.

5. REFERENCES

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