



ANOS ERA

# A paleopathological descriptive “catalogue” of the human remains exhumed from a collective prehistoric funerary structure (3rd millennium BC) :

## The case of Tomb I, Perdigões Ditched Enclosure, Reguengos de Monsaraz,

### Portugal\*

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### Introduction

Tomb I is a *tholos*-type structure found in the prehistoric ditched enclosure of Perdigões, Reguengos de Monsaraz, Portugal, and dated from the first half of the 3rd millennium BC. A total of 61926 bone fragments and 1579 teeth were studied for Tomb I. The MNI estimated was 103 (55 adults and 48 non-adults). All age groups were represented. Both sexes were represented with a slight predominance of female individuals (55,6%) over male ones (46,4%). The human bones were very fragmented and commingled (Fig. 1) No anatomical connections were present suggesting a probable secondary site of deposition. Although the poor preservation of bones, careful analysis demonstrated the potential of the examination of poorly preserved and mixed human bone assemblages and the valuable paleopathological information that can be obtained.

Evidence for degenerative, infectious, congenital, metabolic conditions and trauma were identified on isolated bone fragments, and given the nature of the sample can only be enumerated, described and discussed.



Figure 1

### Oral Pathology

Dental health status analysis showed:

- ➔ 20,6% (289/1399) of teeth showed signs of calculus deposits;
- ➔ 10,4% (143/1369) presented enamel hypoplasia and in a considerable number of cases more than one hypoplastic lesion was identified per tooth (Fig. 2).
- ➔ 2,5% (2/81) deciduous teeth presented enamel hypoplasia (2/81; FDI 85 and 75);
- ➔ 1,9 (n=1428) mean degree of tooth wear of permanent teeth;
- ➔ 1,8 (n=84) mean degree of tooth wear of permanent teeth;
- ➔ 7 (n= 1406) cariogenic lesions were identified;
- ➔ 5,3% (29/539) antemortem tooth loss.

### Traumatic Pathology

Traumatic pathology was observed on a fragment of a MT belonging to the oldest phase in the tomb (Fig.3), Phase 2A and for a fibula from Phase3C.



Figure 2



Figure 3

### Infectious Pathology

Traces of infectious pathology were observed on:

- ➔ 3 fragments of fibula;
- ➔ 2 fragments of femur;
- ➔ fragment of tibia.

All these bones belonged to adult individuals; Both active infections at the time of death and healed lesions were identified, suggesting chronic occurrence and affecting lower limb shafts, in particular fibulas; Due to the commingled nature of the sample it is impossible to know if these bones belong to the same individual or how many individuals they represent.

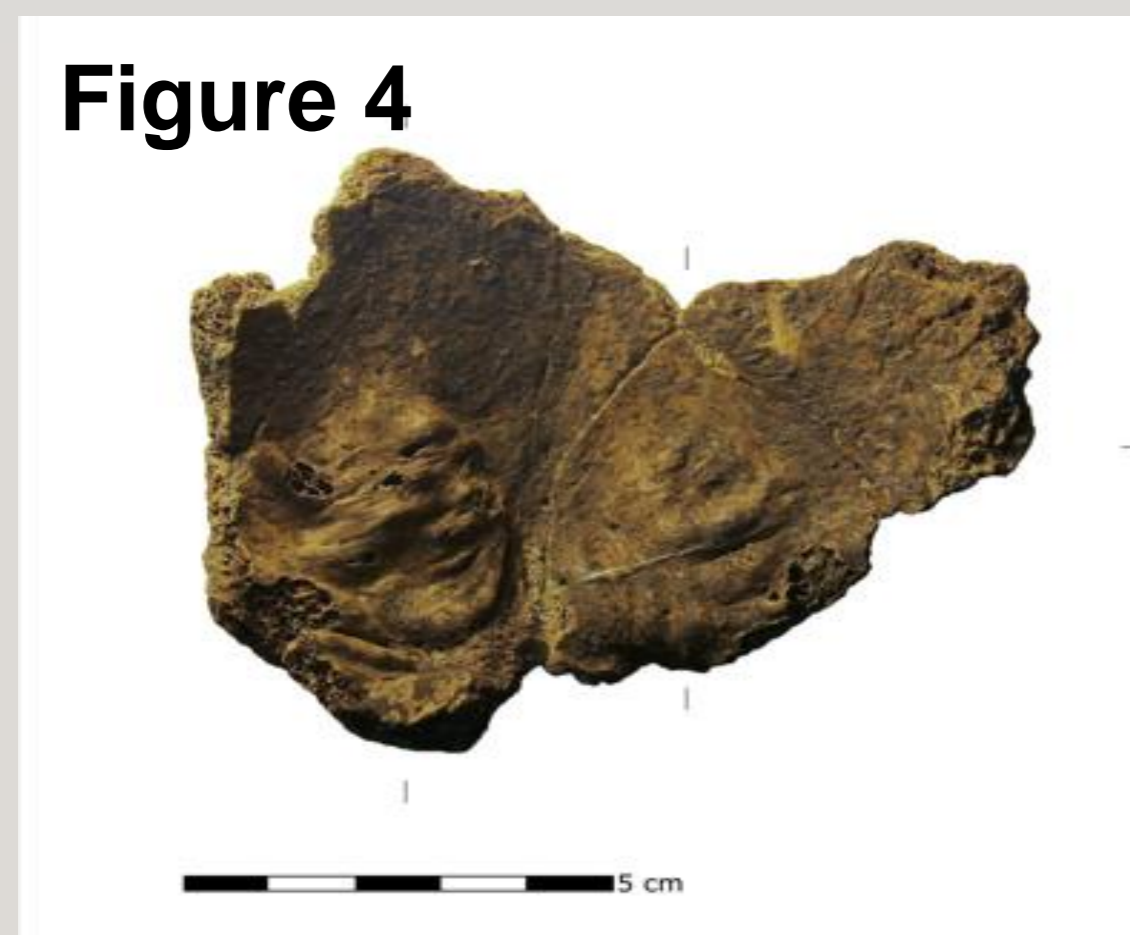
➔ 2 frontal bone fragments and 2 occipital bone presented signs of porosity probably resulting from infectious pathology.

➔ For non-adult individuals, the only active infection on an upper limb was identified on a right humerus from Phase 3C.

### Metabolic Pathology

A probable case of frontal bone hyperostosis from Phase 3C was observed. This condition has been reported in high frequency among post-menopausal elderly women<sup>6</sup> and helps reinforce the idea of the presence of a few older individuals (in an apparently mostly young population) amongst the individuals whose remains were deposited in Tomb I. This is the only known case for this condition in Portuguese prehistory (Fig.4)

Figure 4

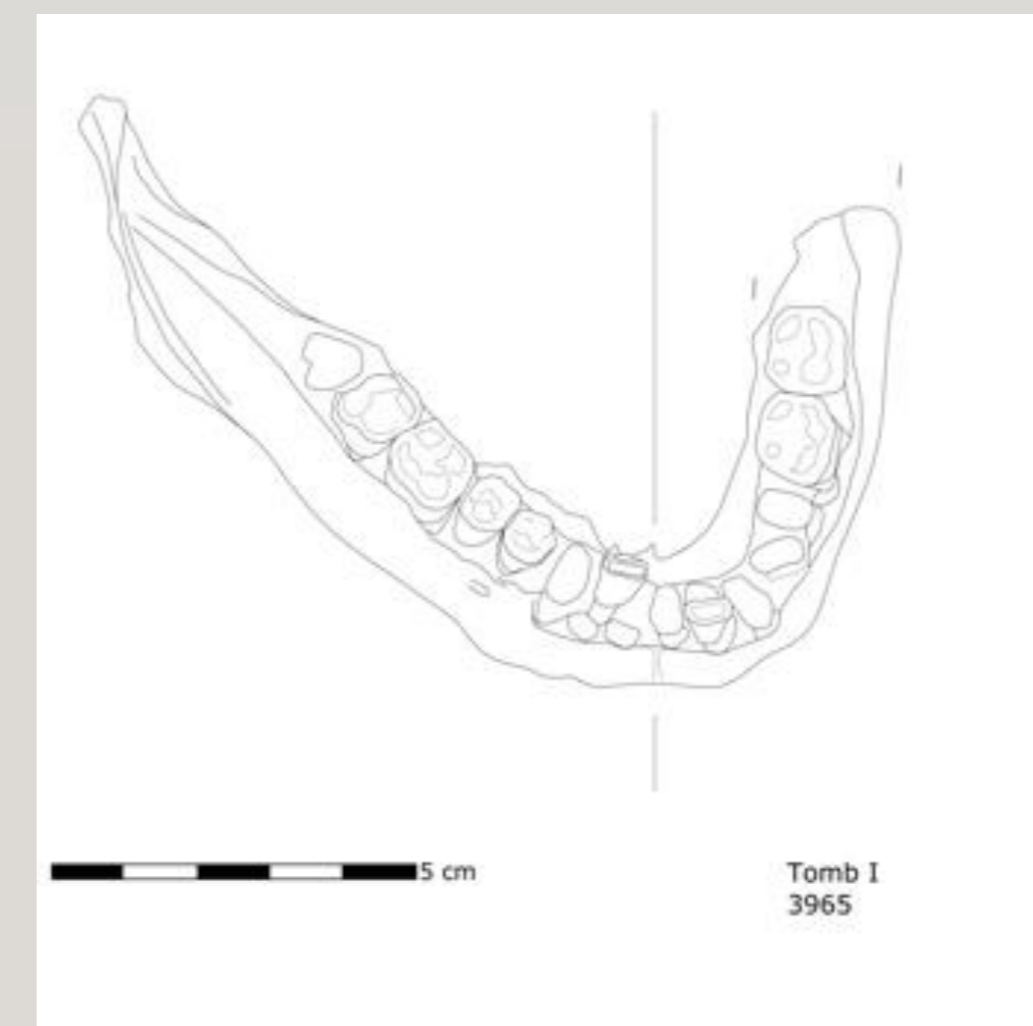


### Congenital Pathology

Congenital conditions identified in the bone collection from Tomb I involve:

- ➔ Two fused cervical vertebrae (Phase 2C), were the only observable preserved surfaces of the fused bodies are the anterior ones, where no sign of the fusing line is visible;
- ➔ Abnormalities in a thoracic vertebra where a possible case of Notochord Defect (Sagittal Cleft Vertebra) was identified<sup>2</sup> (Fig. 5);
- ➔ A case of mandible asymmetry was also described for Phase 2D (Fig.6) with a considerable deviation in the mandibular dental midline towards the right;
- ➔ A congenitally asymmetrical cervical vertebra was identified in Phase 3C, a condition that could have been responsible for the formation of a synovial cyst.

Figure 5



Tomb I 3965

Figure 6

### Degenerative Pathology

Non-Articular degenerative lesions were scored in some fragments of upper and lower limbs, as humerus, femurs, patellae, tibias, fibula and calcanei. With the exceptions of two fragments of right femurs that display lesions on the *linea aspera* compatible with grade 2, all other observed lesions are of grade 1.

Articular degenerative lesions were even rarer, and found in the same parts of the skeleton. All were scored as grade 1.

### Final Remarks

The commingled nature of the sample, differential preservation, impossibility of sex diagnosis and age at death estimation have important repercussions for the diagnosis of pathological conditions.

However, despite these obstacles inherent in the study of collective prehistoric osteological remains, the diagnosis of pathologies is possible, although with limitation, but indispensable in the analysis of these human remains.

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