

Fragmented skeletonised remains: Paget's Disease as a method of biological profiling using radiography: Supplementary file

All images by Adelina Teoaca, Canterbury Archaeological Trust, Kent, United Kingdom.

These photographs relate to skeleton S4817 from grave S4818, context C4817. They were excavated in St Albans Monks' Graveyard, Hertfordshire (United Kingdom) and date from the late medieval period (14th – 15th century AD).

Age assessment – Supplementary details

Figure 1. Diagram of available and affected skeletal anatomy

Figures 2 – 24. Photographs

More information found within:

S. Stark. Osteological report on the human bones from Medieval St Albans Cemetery, Hertfordshire SAMG-EX-17, Canterbury Archaeological Trust. Canterbury, United Kingdom, 2021.

Age assessment – Supplementary details

No teeth available for assessment. Part of the maxilla is present but there are no teeth in the sockets, probably a mix between post-mortem and ante-mortem loss as some of the alveolar bone shows signs of infection. The mandible is not present.

The right pubic symphysis is missing, but the left pubic symphysis alongside left and right auricular surface are present. The right auricular surface shows taphonomical damaged on about 80% of the surface and should be excluded from the assessment. The left auricular surface aligned with 7T or category 8 (within Lovejoy et al (1985): 'breakdown with marginal lipping, macroporosity, increased irregularity, and marked activity in periauricular areas.'

This method is revised by Buckberry and Chamberlain 2002 (7 stages I-VII).

Surface texture: Score 5: 50% or more of surface is occupied by dense bone

Microporosity: Score 3: Microporosity is present on both demifaces

Transverse organization: Score 5: No transverse organization is present

Macroporosity: Score 3: Macroporosity is present on both demifaces

Apical changes: Score 3: Irregularity occurs in contours of articular surface; shape of apex is no longer a smooth arc.

Composite score: 19- age stage VII (53-99 year old, mean age 72.25).

Pubic symphysis age assessment (right) based on Brooks and Suchey (1990). Phase I-VI (males), 34-86 age range, with a mean age of 61.2 years old:

'Symphyseal face may show ongoing depression as rim erodes. Ventral ligamentous attachments are marked. In many individuals the pubic tubercle appears as a separate bony knob. The face may be pitted or porous, giving an appearance of disfigurement with the ongoing process of erratic ossification. Crenulations may occur. The shape of the face is often irregular at this stage.'

References:

J.L. Buckberry, A.T. Chamberlain. Age estimation from the auricular surface of the Ilium: A revised method. *Am. J. Phys. Anthropol.* 119 (2002) 231-239. <https://doi.org/10.1002/ajpa.10130>

S. Brooks, J.M. Suchey. Skeletal age determination based on the os pubis: a comparison of the Acsádi Nemeskéri and Suchey-Brooks methods. *Hum. Evol.* 5(3) (1990) 227-238. <https://doi.org/10.1007/BF02437238>

C.O. Lovejoy, R.S. Meindl, T.R. Pryzbeck, R.P. Mensforth. Chronological metamorphosis of the auricular surface of the ilium: A new method for the determination of adult skeletal age at death. *Am. J. Phys. Anthropol.* 68(1) (1985) 15-28. <https://doi.org/10.1002/ajpa.1330680103>



Osteological Recording Form:

Adult

Skeletal
Inventory:

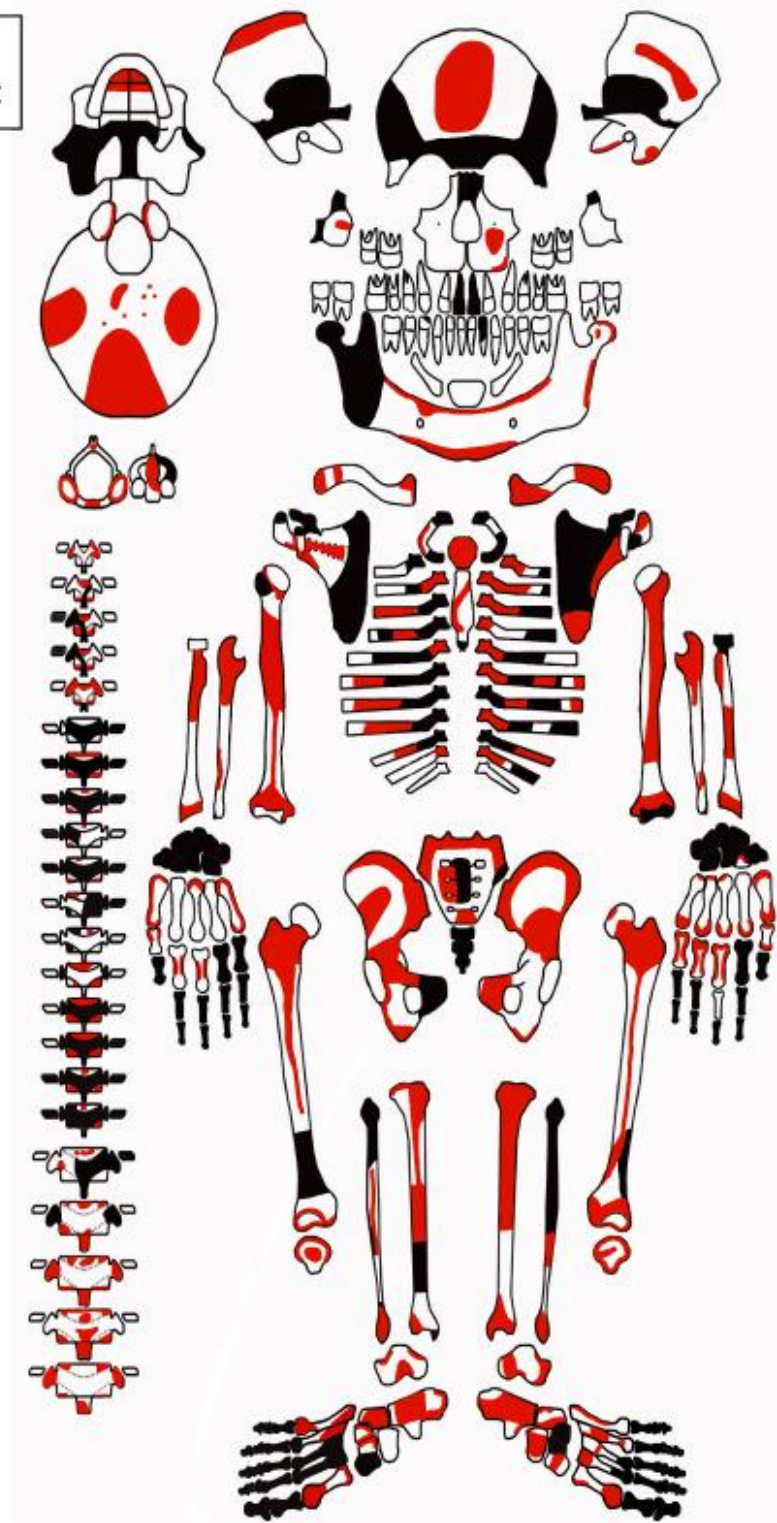


Figure 1. Skeletal elements with areas of significant bony change highlighted in red. Black represents absent anatomy.



Figure 2. Right femur, anterior view



Figure 3. Right femur, posterior view

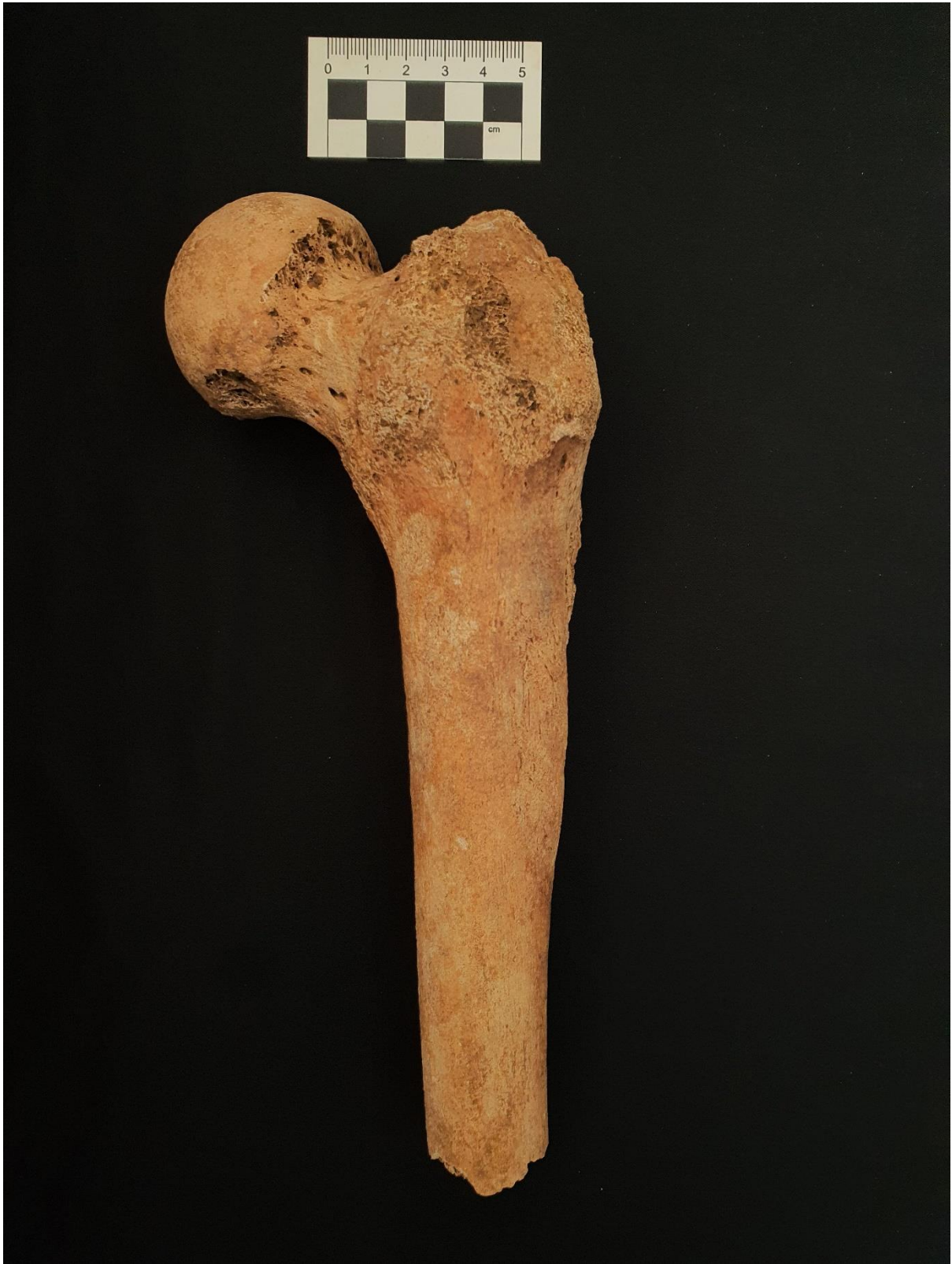


Figure 4. Left femur, anterior view



Figure 5. Left femur, posterior view



Figure 6. Right humerus, anterior view



Figure 7. Right humerus, posterior view



Figure 8. Left tibia, proximal end, anterior view



Figure 9. Left tibia, proximal end, postero-laterally view



Figure 10. Left tibia, proximal end, medial view



Figure 11. Left tibia, proximal end and joint surface, anterior view.



Figure 12. Right clavicle, inferior view



Figure 13. Right clavicle, anterior view



Figure 14. First sacral vertebra, anterior view



Figure 15. First sacral vertebra, posterior view



Figure 16. Section of the right ilium fragment, inferior view



Figure 17. Section of the right ilium fragment, superior view



Figure 18. Right pelvis, lateral view



Figure 19. Right pelvis, medial view



Figure 20. Right acetabulum, lateral view



Figure 21. Left parietal fragment



Figure 22. Palatine bone and maxilla fragments, inferior view



Figure 23. Left and right external auditory meatus



Figure 24. Left and right pars petrosa, internal auditory canal