Metapodial slenderness versus length has been identified (Davis, 2000: 389) as a potentially useful method for distinguishing males, females and castrates in an archaeological sample. The general distribution of adult sheep metapodia at the 18th – 19th century site of Tumbling Fields, Tiverton, Devon compares well with the assemblage of unimproved adult Shetland sheep used by Davis in his analysis (2000), suggesting the presence of both rams and ewes in the assemblage from the Tumbling Fields site.

Slenderness (shaft width/length) versus length of the metacarpals was used to separate breeds into ‘slender’ and ‘thick’ (Guintard and Lallemand, 2003: 579). Limit values of 0.12 and 0.13 for females and males respectively (equivalent to 12 and 13 in figures 1 and 2) place the assemblage in the ‘slender’ category with a mean value of 11.8. Metacarpal Bp was used as a proxy for size, categorising breeds as ‘heavy’ (greater than 27 mm) or ‘light’ (less than 27 mm) (Guintard and Lallemand, 2003: 577-578). Breeds were also categorised as ‘tall’ (greater than 135 mm) or ‘short’ (less than 135 mm) using GL as the parameter (Guintard and Lallemand, 2003: 578). Most specimens from the Tumbling Fields site would be classified as ‘light’ and ‘short’ (figure 3) with an average length of 128.5 mm and proximal width of 24.04 mm.

The log ratio method confirmed that the bones were nonetheless from an ‘improved’ breed. The positive mean values (figure 4) indicate that the bones were both taller and broader than those of the unimproved Shetland ewe standard (Davis, 1996). Comparison with other sites shows that the mean length increased through time with the smallest sheep being present at 15th century Launceston Castle, Cornwall and the tallest animals being present at 17th-18th century Wickham Glebe, Hampshire. The same holds true for the mean widths. Such ‘improvement’ did not happen over-night and, from the results of this analysis, it seems likely that such alterations in sheep were of a gradual nature. Moreover, these changes would appear to have been in progress since the medieval period. This is consistent with findings from other English sites and may be linked to the expansion of land given over to pasture and the flourishing wool market (Albarella, 1999: 868).

**References:**


Lincoln: City of Lincoln Archaeology Unit.


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**‘Improvement’ in post-medieval sheep (*Ovis aries*) metapodia from southern Britain**

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