

most associated with such impacts we can better manage tourism in order to lessen negative consequences for ecological communities.

This research asks: What ecological and species-specific characteristics can be used to predict primate response to tourists in the CSNR? We predicted that (1) primates alarm call and flee more often when encountered in open habitat, (2) average species body size is negatively correlated to rates of alarm calls and fleeing and (3) habituated monkeys alarm call and flee less than unhabituated animals. After observing primate response to tourists during the activities of 48 tour groups, we found that, across species, animals encountered in open habitat alarm called more than those encountered in dense habitat, although there was no association between habitat type and occurrence of fleeing. We also found a positive correlation between alarm call frequency and body size, and that un-habituated are more likely to alarm call than habituated animals. Results differing from those predicted indicate that primate responses to tourists must be investigated for each species, and take into account the holistic evolutionary circumstances under which primate behavior develops.

William Hewson and the Craven Street anatomy school.

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Archaeological evidence of

anatomy schools is scarce but in recent years a number of discoveries have been made of hospital medical schools in the states, Ireland and England. Craven Street anatomy school is the only private anatomy school ever uncovered in an archaeological context. In 1997 a small excavation in the basement of 36 Craven Street near Charing

Cross in London revealed over 3000 fragments of human and faunal remains, many of them had been dissected. An investigation was launched and revealed an anatomy school had existed at the premises between 1772 and 1778. The school was founded by Mr. William Hewson (1739-1774) and closed only six years later following the death of his successor Mr. Magnus Falconar (1758-1778). Hewson was only 36 when he died from septicemia after cutting himself during a dissection. The analysis of the skeletal remains displayed an interesting demographic profile with a large amount of perinatal and neonatal remains. The cut marks were examined and revealed differential dissection techniques as well as evidence of body sharing and surgical intervention. Compared to the hospital anatomy schools the profile of the pit was very different, suggesting that procurement of bodies for dissection was far more difficult for the smaller private establishment than the hospitals. The Faunal remains were treated very different from the human remains with evidence of being both the remains of food as well as subjects of dissection/vivisections. This study was funded by The Wellcome Trust (Grant: 083396)

84. Drifting osteons occur in higher concentrations in habitual tension environments: A microstructural toughening mechanism?

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In cortical bone, drifting osteons (DOs) are unusual morphologic variants of secondary osteons with possible mechanical or metabolic importance. We hypothesized that, by increasing interfacial complexity, regional variations in

the prevalence of DOs may represent a microstructural toughening mechanism that accommodates differences in microstructural failure in tension vs. compression. Alternatively, we postulated that if DOs preferentially migrate toward the medullary canal (endosteum) and/or other low strain regions (e.g., neutral axes) that this could support the inter-related metabolic or strain-gradient hypotheses. One femur was obtained from each of eight adult chimpanzees, and five cross-sections were evaluated: 1) mid-neck, 2) base neck, 3) sub-trochanteric (80%), 4) proximal shaft (70%), and 5) mid-shaft (50%). Undecalcified, unstained specimens were embedded in methacrylate, ultramilled, and imaged under circularly polarized light (CPL). Predominant collagen fiber orientation (CFO) was used to infer habitual tension and compression regions. Numbers of DOs were quantified in cortical octants. Pearson correlations were used to detect possible relationships between number of DOs and various microstructural characteristics including CFO and OPD. Relative percentages of DOs that migrated towards the endosteum, neutral axis, or both were determined. There were significantly more DOs in the "tension" regions ($p < 0.01$) of the femoral neck and 70-80% sections (bending environments), but no regional variations at mid-shaft (relatively more torsion-loaded environment). There was no greater predilection of drifting toward the endosteum vs. neutral axis regions. These data suggest that DOs may help toughen cortical bone in tension regions where microstructural failure is more likely when compared with compression regions.

Aquatic habitat use in hominins.

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