addresses that question by comparing how the primate foot responds to load under experimental conditions.
Data are derived feet of human, chimpanzee, and baboon cadavers. Each specimen was subjected to a vertical load via the tibial shaft while monitoring positions of the calcaneus, talus, cuboid and navicular. Functional alignment movement analysis was used to derive 6 DOF movement patterns as well as the orientation of rotational axes for the joints formed between adjacent pairs of these bones.
Conventional kinematic analyses report joint rotations as if they occur about the orthogonal axes of the anatomical reference frame. When presented in this fashion results suggest a strong functional similarity between humans and chimps, to the exclusion of baboons. However, when the orientation of the rotational axis is considered the human foot is shown to be unique, while chimps and baboons are more similar. These findings suggest a functional progression from monkey to ape to human. In this fashion, the human foot can be viewed as an extension of the primate pedal condition. Consequently, the foot of the stem hominine may not have been recognizably distinct from that of the ancestral hominid condition.
Support provided by a UWL Faculty Research Grant. Nonhuman specimens provided by the University of Louisiana at Lafayette-New Iberia Research Center, University of Washington NPRC, the Southwest Foundation for Biomedical Research and the University of Illinois at Chicago Biologic Resources Laboratory.

First examinations on neolithic human bones from Göbekli Tepe, Turkey.

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Göbekli Tepe is the earliest known temple complex, located in the eastern part of Turkey. Until now, no graveyards or burials inside the buildings had been found. But as the structures were filled up with soil in Neolithic times, people took the soil from the surroundings. In this soil, 129 human bone fragments were found, the most common type being skull fragments (81). Age distribution shows 15 fragments belonging to subadults and 114 to adults. Males were represented by 18 fragments, females by 13, and in 98 fragments no statement about the sex could be made. Mostly inflammatory but also hemorrhagic diseases of the external lamina of the skull vault were found in 14/58 fragments, in the internal lamina in 8/52. The joints showed degenerative changes in 1/13 extremity joints and in 1/2 vertebral joints. Diseases of the teeth could be examined in 13 teeth. Out of the 13 teeth one had karies, six showed calculus, three had transversal enamel hypoplasias and three showed severe attrition. There were no signs of abscesses in any of the mandibles or maxillas. In one case a severe inflammatory process of the nasal cavity had occurred. Two fragments had signs of burning, three showed cut marks and one frontal fragment had geometric carvings on it. Even if the burials were not inside the cult-place, they had different kinds of artificial treatment though they possibly belong to this place.

Population biodistance in ancient central California.

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The Vineyards site (4-CCO-548) is a central California multi-use site which dates to the Middle Archaic (4350 and 550 BC). The remains of nearly five-hundred individuals were recovered from 4-CCO-548. Mean measures of divergence were derived from frequencies of nonmetric cranial data. The MMD's were used to place the Vineyards sample in a taxonomic context with other contemporaneous regional samples. Tremendous biological variability has long been attributed to the early Native American inhabitants of the Central Valley of California. Some researchers have attributed the distinctive dissimilarity between samples to in-migrations of new people to the area. Others have found marked diversity not only between cultural horizons but also between sites attributed to the same horizon. This diversity has been attributed to isolation by distance due in part to the sedentary life style of Central California populations. The results of the present biological distance analysis in large part mirrors results found in previous ones. That is, the estimated distances between populations is quite large and taxonomic diagrams based on those distances reveal very few close relationships. This may lend further support to the contention that precontact California Native American groups practiced a relatively strict form of endogamy. However, another possibility must also be considered. Genetic drift is not just a phenomenon of geographic separation but also can be due to temporal separation. The difficulties presented by the inadequate California chronologies force researchers to place population samples in extremely long time sequences with little meaningful internal separation of those large temporal associations.

Who is more bipedal? Positional behaviour in captive bonobos and chimpanzees.

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Although bonobos are often considered to be more bipedal than chimpanzees in the wild, previous research as shown that this is not the case in captivity and that both species are equally bipedal. We provide a further test of this incongruity through an analysis of positional behaviour in captive bonobos (*Pan paniscus*) and chimpanzees (*P. troglodytes*) at the Leipzig Zoo, Germany. We analyzed video data collected over a period of nine years on bonobos ($n=8$) and chimpanzees ($n=8$) paired to the same sex and similar age. Locomotor behaviours were quantified using a step sampling method, postural positions were measured in time and the substrate used was noted for each. Chi-square tests of variation in the frequency of each positional behaviour were conducted both between interspecific pairs and across age-classes within and between species.
Results revealed that bonobos engaged in significantly more bipedalism and suspensory behaviour than chimpanzees. Infant and adult chimpanzees exhibited more quadrupedal fist-walking and knuckle-walking, respectively, than bonobos. Chimpanzees were altogether more terrestrial than bonobos, although mean frequencies of positional behaviours varied widely across individuals and age-classes. Intraspecific comparisons showed significant changes in locomotor behaviour throughout ontogeny in both species. These results support previous locomotor research in the wild that documents similar ontogenetic changes in locomotion and significant variation in the frequency of bipedalism versus quadrupedalism between bonobos and chimpanzees.
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Population density and group composition in *Tarsius pumilus*.

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Between June and September 2010, I conducted a population and group census of pygmy tarsiers, *Tarsius pumilus*, as part of a study of their high-altitude behavioral ecology. Sampling took place within a 1 km^2 area encompassing altitudes of 2100-2300 m on Mt. Rore Katimbu in Lore Lindu National Park, Central Sulawesi, Indonesia. Over the course of 60 nights, an average of 12 mist nets were positioned and checked nightly for a total of 5,600 net-hours. Within 20 one-hectare plots, I observed five groups containing a total of 18 individuals. The mean number of groups per hectare was .25, with a mean of .9 individuals per hectare. The average distance between sleeping sites of