

England, and notably in the valley of the Thames. In that district, a series of brick-earths with intercalated bands of river-gravel, having a united thickness of more than 25 feet, is overlain with a remarkable bed of clay, loam, and gravel ("trail"), three feet or more in thickness, which in its contorted bedding and large angular blocks probably bears witness to its having been accumulated during a time of floating ice. The strata below this presumably glacial deposit have yielded a remarkable number of mammalian bones, among which have been found undoubted human implements of chipped flint. The species include *Rhinoceros leptorhinus*, *R. antiquitatis* (*tichorhinus*), *R. megarhinus*, *Elephas antiquus*, *E. primigenius*, *Cervus giganteus* (*Megaceros hibernicus*), *Felis leo*, *Hyæna crocuta*, *Ursus ferox*, *U. arctos*, *Ovibos moschatus*, *Hippopotamus amphibius* (major), and present another example of the mingling of northern with southern, and of extinct with still living forms, as well as of species which have long disappeared from Britain with others still indigenous. Other ancient alluvia, far above the present levels of the rivers, have likewise furnished similar evidence that man continued to be the contemporary in England of the northern rhinoceros and mammoth, the reindeer, grizzly bear, brown bear, Irish elk, hippopotamus, lion, and hyæna.

The caverns in the Devonian, Carboniferous, and Magnesian limestones of England have yielded abundant relics of the same prehistoric fauna, with associated traces of Palæolithic man. In some of these places, the lowest deposit on the floor contains rude flint implements of the same type as those found in the oldest river-gravels, while others of a more finished kind occur in overlying deposits, whence the inference has been drawn that the caverns were first tenanted by a savage race of extreme rudeness, and afterward by men who had made some advance in the arts of life. The association of bones shows that when man had for a time retired, some of these caves became hyæna dens. Hyæna bones in great numbers have been found in them (remains of no fewer than 300 individuals were taken out of the Kirkdale cave), with abundant gnawed bones of other animals on which the hyænas preyed, and quantities of their excrement. Holes in the limestone opening to the surface (sinks, swallow-holes) have likewise become receptacles for the remains of many generations of animals which fell into them by accident, or crawled into them to die. In a fissure of the limestone near Castleton, Derbyshire, from a space measuring only 25 by 18