

In several caverns on the banks of the Meuse, near Liège, Dr. Schmerling has found human bones in the same mud and breccia with those of the elephant, rhinoceros, bear, and other quadrupeds of extinct species. He has observed none of the dung of any of these animals; and from this circumstance, and the appearance of the mud and pebbles, he concludes that these caverns were never inhabited by wild beasts, but washed in by a current of water. As the human skulls and bones were in fragments, and no entire skeleton had been found, he does not believe that these caves were places of sepulture, but that the human remains were washed in at the same time as the bones of extinct quadrupeds, and that these lost species of mammalia co-existed on the earth with man.

Caverns in the South of France.—Similar associations in the south of France, of human bones and works of art, with remains of extinct quadrupeds, have induced other geologists to maintain that man was an inhabitant of that part of Europe before the rhinoceros, hyæna, tiger, and many fossil species disappeared. I may first mention the cavern of Bize, in the department of Aude, where M. Marcel de Serres met with a small number of human bones mixed with those of extinct animals and with land shells. They occur in a calcareous stony mass, bound together by a cement of stalagmite. On examining the same caverns, M. Tournal found not only in these calcareous beds, but also in a black mud which overlies a red osseous mud, several human teeth, together with broken angular fragments of a rude kind of pottery, and also recent marine and terrestrial shells. The teeth preserve their enamel; but the fangs are so much altered as to adhere strongly when applied to the tongue. Of the terrestrial shells thus associated with the bones, and pottery, the most common are *Cyclostoma elegans*, *Bulimus decollatus*, *Helix nemoralis*, and *H. nitida*. Among the marine are found *Pecten jacobæus*, *Mytilus edulis*, and *Natica mille-punctata*, all of them eatable kinds, and which may have been brought there for food. Bones were found in the same mass belonging to three new species of deer, an extinct bear (*Ursus arctoïdeus*), and the wild bull (*Bos urus*), formerly a native of Germany.*

In the same part of France, M. de Christol has found in caverns in a tertiary limestone at Pondres and Souvignargues, two leagues north of Lunel-viel, in the department of Herault, human bones and pottery confusedly mixed with remains of the rhinoceros, bear, hyæna, and other terrestrial mammifers. They were imbedded in alluvial mud, of the solidity of calcareous tufa, and containing some flint pebbles and fragments of the limestone of the country. Beneath this mixed accumulation, which sometimes attained a thickness of thirteen feet, is the original floor of the cavern, about a foot thick, covered with bones and the dung of animals (*album græcum*), in a sandy and tufaceous cement.

The human bones in these caverns of Pondres and Souvignargues

* M. Marcel de Serres, *Géognosie des Terrains Tertiaries*, p. 64. Introduction.