

is built in a creek, shut out from exposure on all sides except the south. In this creek, hollowed out of the rocks, is the great fissure or cavern known as Kent's Hole ; like that of Kirkdale, it has been under water, from whence, after a longer or shorter interval, it emerged, but remained entirely closed till the moment when chance led to its discovery. The principal cavern is 600 feet in length, with many crevices or fissures of smaller extent traversing the rock in various directions. A bed of hard stalagmite of very ancient formation, which has been again covered with a thin layer of soil, forms the floor of the cavern, which is a red sandy clay. From this bed of red loam or clay was disinterred a mass of fossil bones belonging to extinct species of Bear, Lion, Rhinoceros, Reindeer, Beaver, and Hyæna.

Such an assemblage gave rise to all sorts of conjectures. It was generally thought that the dwelling of some beasts of prey had been discovered, which had dragged the carcasses of elephants, deer, and others into these caves, to devour them at leisure. Others asked if, in some cases, instinct did not impel sick animals, or animals broken down by old age, to seek such places for the purpose of dying in quiet ; while others, again, suggested that these bones might have been engulfed pell-mell in the hole during some ancient inundation. However that may be, the remains discovered in these caves show that all these Mammals existed at the close of the Tertiary epoch, and that they all lived in England. What were the causes which led to their extinction ?

It was the opinion of Cuvier and the early geologists that the ancient species were destroyed in some great and sudden catastrophe, from which none made their escape. But recent geologists trace their extinction to slow, successive, and determinative action due to local causes, the chief one being the gradual lowering of the temperature. We have seen that at the beginning of the Tertiary epoch, in the older Eocene age, palms, cocoa-nuts, and acacias, resembling those now met with in countries more favoured by the sun, grew in our island. The Miocene flora presents indications of a climate still warm, but less tropical ; and the Pliocene period, which follows, contains remains which announce an approach to our present climate. In following the vegetable productions of the Tertiary epoch, the botanist meets with the floras of Africa, South America, and Australia, and finally settles in the flora of temperate Europe. Many circumstances demonstrate this decreasing temperature, until we arrive at what geologists call the *glacial period*—one of the winters of the ancient world.