

weather the animal was short of food, and that in his wanderings he had observed above his head something edible on the lower branches of the thorn tree, possibly leaves, moss, or lichens, on which deer feed in snowy weather. These he could not reach when standing on all fours. He, therefore, probably raised himself upon his hind legs, and when stretching himself upward and forward, the hoofs of his hind legs slipped from under him, or else, when letting himself down again, his right leg slipped suddenly between the forked branches of the tree, and was instantly held there tight. The animal then probably began immediately to struggle, but the more he kicked and fought the tighter the wrist of his foot got wedged in; in fact, when the preparation was brought to me the foot was so tightly fixed into the notch of the tree that it could not have been more jammed if it had been hammered down, and then a long screw passed through it. In his struggles to get loose the first thing that happened was the fracture of the leg bone. This allowed the animal to fall on his back, from which position, of course, he could not rise. Terribly alarmed at what had happened to him, the poor stag then began to pull and tug at his captive leg, assisting himself so to do by means of his horns. In his frantic exertions to get free, the stag a second time broke his leg, then the skin gave way, and lastly, the large tendons. If his strength had lasted long enough to have ruptured the two small tendons, it is possible that he might have escaped, leaving his leg in the fork of the tree. Prince Christian, having been informed of the accident, judiciously ordered the portion of the tree which held the foot to be sawn off bodily. He then kindly sent the whole thing to me, with a request that the foot should be preserved for him without being removed from the fork in which it had been so tightly jammed by the animal itself.

The preparation will be the most unique specimen of an accident that ever occurred in the royal forest in the annals of English history.

### THE ANTIQUITY OF MAN.

By SYDNEY B. J. SKERTCHLY, F.G.S., OF H.M. GEOLOGICAL SURVEY.

The written history of our land commences with the Roman occupation in the early part of the Christian era. The Celtic tribes which then inhabited England have long been looked upon as savages running wild in a wood, and exhibiting their wood-stained bodies to their friends with a paucity of clothing that should have called forth vigorous remonstrance from the whilom Lord Chamberlain. But these ideas are fast dying out amongst students, and it is becoming clear that no small degree of culture and civilisation appertained to them, and that the Roman occupation exercised rather a degrading than an elevating influence upon our ancestors.

These early Britons were skilled workmen in metal. They possessed good roads, built well-constructed towns, engaged in extensive foreign commerce, struck their own coins, and possessed a literature (alas! totally lost) written in Greek characters. Perhaps no better proof of their culture can be adduced than their voluntary submission to the rule of a woman. Speed, translating Tacitus, gives us a splendid picture of Boadicea, who, "in her chariot, doing the parts of a most noble General, drove from troops to troops to see and commend their forwardness; and dismounting, attended with her two daughters, and two hundred and thirty thousand Britons, gat her to a seat made of marshy turfs. . . . apparelled in a loose gown of changeable colours, wearing a *Kirtle* thereunder, very thick *pleated*, the tresses of her yellow hair hanging down to the *skirts*. About her neck she had a *chaine* of gold, and in her hand a light *spear*, being of personage tall, and of a comely, cheerful countenance."

This is no picture of savagery; and we may rest assured that, whatever might be said of some of the inland tribes, the inhabitants of the coast were a very well conditioned people, of much culture. Such is the earliest notice of our forefathers.

Where history fails us, science takes up the tale, and carries us backwards to the most remote antiquity. The story is very far from complete, but it possesses the inestimable merit of adhering to the plain unvarnished truth, free from every touch of partisanship.

In the barrows and tumuli, in the stone circles and dolmens, and even preserved in morasses now reclaimed, we come upon the relics of the prehistoric peoples. Further back yet, in the gravels of the present rivers, and, as will be shown, in gravels of rivers now no more; even under beds of glacial drift, and associated with extinct animals, articles of human workmanship are found.

Space will not permit us to dwell upon the times immediately anterior to the historic age; but it is proposed to enter somewhat fully into the question of man's antiquity, and so expound the geological reasoning which has led some geologists—an increasing host—to date man's appearance in England some two hundred thousand years ago, long before the close of that wonderful epoch known as the Glacial Epoch.

Before Iron was known in England, Bronze was used for metallic weapons; and strange as it may appear, a Bronze Age preceded the Iron Age all over Eurasia and over some parts of Africa.

Nor is this testimony altogether unsupported by historical evidence. In ancient Egypt, for instance, no iron implements are recognized as being older than the twelfth dynasty, whereas copper-mines dating as far back as the second dynasty are known in Wady Magarha, and old Latin writers speak of bronze chisels found in old Egyptian gold-mines, which were used before iron was known.

In ancient Greece the heroes are stated to have been equipped with bronze weapons, and the truth of this tradition has been abundantly proved by the splendid researches of Schlieman on the site of Troy. The very names, *chalkeys* and *chalkeyin*, used to designate working in iron, show that the old terminology of a former Bronze age had lingered on. Old Roman writers bear similar testimony to the priority of the use of bronze.

The great difficulty in accepting this testimony has always been in the irreducible nature of copper and tin ores as compared with those of iron; and the complexity of an alloy like bronze, as distinguished from the simplicity of a single metal like iron.

It is, indeed, true that, as a rule, simplicity is a test of antiquity; but the evidence in this particular instance is so weighty that we are bound to admit that, as a matter of fact, complex bronze did actually precede simple iron.

The geological testimony upon this point is singularly clear. In Denmark, where the succession of the Iron, Bronze and Stone ages was first satisfactorily determined, there are immense deposits of thick peat; and, buried in this peat at different depths, are three successive forests.

The lowest of these forests is composed of trunks of the Scotch fir—a tree not now indigenous to Denmark. Associated with this forest are found remains of man, such as bones and weapons of stone—but never a trace of any metallic tool.

The pines seen to have died away from Denmark, and to have been succeeded by oak-trees, whose relics are found in the peat above the horizon of the pines. With these oak trunks are found weapons of bronze, but none of iron.

The oaks in their turn gave way, and were succeeded by beech-trees, whose relics form the third and highest of the zones of buried forests. Associated with these beech-trees occur tools of iron.

Here, then, we have clear geological proof of the intercalation of the Bronze period between the age of Stone and that of Iron; and similar evidence might be cited from other localities.

But perhaps the strongest testimony in favour of the adopted classification is afforded by the nature of the tools themselves. Implements, like other things, have not suddenly been designed, but have gradually been developed; the simpler forms having preceded the more elaborate as skill and culture advanced. If, then, bronze succeeded stone, we might reasonably expect to find some of the bronze tools fashioned after the type of pre-existing stone implements. This is actually the case. The finely-wrought stone axes known as celts have been copied in every feature by the workers in bronze; and, as if to leave no room for doubt on this point, we find that bronze tools were afterwards copied in iron.

These facts teach us a more important lesson even than the succession of stone, bronze and iron. They show us that from the Stone Age man has occupied our land continuously and has progressed steadily in arts and civilisation.

We must here pause to remark that the Stone Age of which we are now speaking is known as the *Neolithic*, or Newer Stone Age; and that there was an older, or *Paleolithic* Age, whose features will be hereafter discussed.

Let us now glance at the evidence that has been accumulated respecting the physical characteristics and habits of these prehistoric people. It would be quite out of our province to attempt, even in the most meagre manner, to epitomise the various trains of reasoning, founded upon discoveries all over Europe and elsewhere, that have brought our knowledge to its present state. We can, indeed, do little more than give bare results.

Over Great Britain and Ireland remains of the Neolithic and Bronze Ages are scattered broadcast. In the tumuli we have their burial-places, in certain caves their dwellings, and from the