

of three feet, in the midst of which were sharp splinters of flint, and a thick mass of broken and split bones, and the shattered skulls and jaw bones of a heterogeneous mass of animals of all kinds. In the lowest layer no trace of men, either by their remains or by their handiwork, could be found, all the remains consisted of bones of animals, chiefly the cave bear, hyæna, and lion. These cave-dwelling animals appear to have been the first and earliest possessors of the cave. But soon after this men must have discovered the cave and inhabited it, for from this layer up to the newest layer of all the presence of man is clearly shown, and the remains of their feasts and of their daily life are mingled with those of the previously-named animals. The most numerous remains consist of flints of which many thousand were found, but these do not appear to have been used as implements, but come rather under the category of flint-flakes, the chippings from knives, saws, lances, &c. The most perfect one found is three inches long, and half-an-inch wide, and is toothed like a saw, and was probably used as such to saw off the ends of the deer's horns, of which quantities were found.

In order to judge the age in which men began to inhabit this cave, we must examine the remains of the bones and skeletons of the animals which they hunted, and whose flesh was eaten in the cave. The most conspicuous amongst these is the cave bear, and although it might at first sight appear very difficult to recognise in the broken and burnt bits of bone that they really do belong to the cave bear, nevertheless, careful comparison with specimens in museums has proved that this is the case. Every care seems to have been made to utilise to the utmost all parts of this animal, which was apparently the most important game in the surrounding forests, and which no doubt required much labour and time to capture. At the same time, together with the bones of the cave bear are found bones of the elephant and of the rhinoceros, but not many in comparison. These remains, however, show conclusively, by the way in which they have been split up and broken, that man hunted these animals at the time he first appears on the scene. Remains of horses, oxen, cats, and wolves were also met with, and in proof that the early inhabitants were not un-mindful of fish, there are the bones and scales of large pike and carp. The smaller bones of mice and frogs do not appear to owe their origin so much to man as to the owls which seem to have held possession of the cave as well.

Great interest attaches to the fragments of pottery which were found in the cave, and which rival the flint flakes in quantity. It appears to have been all hand made, but although rough, shows considerable beauty of shape and form. It is possible to put together from the fragments one or two more or less complete vessels, which, however, show great diversity as to size, &c., some being between 10 and 20 centimetres in diameter. The material of which they are made appears to be clay mixed with sand, but few, if any, seem to have been regularly burnt. Much of the pottery is ornamented with lines or rows of dots, which run in zigzag lines over the wider parts. The internal smoothness would appear to be due to the river mussel, *Unio*, obtained from the River Naab which flows close by, and of which many well rubbed and polished specimens were found in the cave. A block of granite with one side rubbed smooth, and by long usage appearing quite polished, can hardly be anything else than a well-worn millstone, and this is rendered more probable by two holes having been bored into the upper side as if for the purpose of affixing a handle. The presence of this millstone would indicate the cultivation of land in the immediate neighbourhood, which is confirmed by the finding of several spindles made of clay.

The different objects found in this cave are of great

interest, as they apparently run counter to the somewhat hard and fast lines which have been drawn as to different well marked periods in the early history of man.

THE PARIS SIEGE BALLOONS

THE lessons learnt at Paris in regard to balloon navigation will be of great value in any future employment of aerial machines, and the statistics which have now been collected and published are well worthy of a brief notice. As many as sixty-four balloons, it appears, actually started from Paris in good order, with a *personnel* of 161, and with something like three million letters. The first ascent was made on the 23rd of September, 1870, by M. Duruof with safety, and the fifth balloon carried in it Gambetta, who arrived without accident at Amiens after a voyage of four hours. M. Janssen, whom, it will be remembered, was desirous of watching the approaching eclipse in the south of Europe, left Paris with all his instruments complete in the balloon *Volta*, on the 2nd of December, landing at Savenay (Loire Inférieure) after a journey of five hours and a half. One of the later voyages was made with two cases of dynamite, to be dropped and exploded at a seasonable moment; but fortunately for the enemy no such opportunity presented itself. The last balloon left Paris on the 28th of January, 1871.

Of these sixty-four balloons only seven were unsuccessful in fulfilling their purpose, two of the machines being utterly lost at sea; while five were captured by the enemy. As many as sixteen actually fell within the hostile lines; but the aeronauts were in most cases too quick for their pursuers, and managed to escape. Indeed, of the five actually taken only three were really captured by the enemy's forces, the other two falling in fact upon German soil, namely, in Prussia and Bavaria. The most interesting voyage was certainly that of M. Rollier, who travelled safely from Paris to Christiania in fourteen hours, after a journey across the North Sea of nearly twelve hours. Of the two lost at sea, one was observed to go down by some sailors at Rochelle; while of the other nothing certain is known.

The regularity with which the balloon service was conducted during the winter of 1870 under grave disadvantages will be remembered by all who studied the daily newspapers at that period, the news from the French Capital never being interrupted for more than three or four days together. Most of the aerial machines contained 2,000 cubic metres of gas, and one of them consisted of twin spheres tethered together; they were usually started from the Orleans or North railway stations at nightfall, so that they might escape the vigilance of the German troops posted round the city. Besides a freight of letters the majority carried baskets of pigeons, and in five cases dogs, destined to return with news to the beleaguered city; how well the pigeon-post itself was organised may be gathered from the fact that fifty thousand messages were sent into Paris by its means alone.

Some attempts were made by M.M. Tissandier Frères to return to Paris by means of aerial machines impelled by favourable winds; but two successive essays made from Rouen on the 8th and 9th of November were quite fruitless. M. Jules Godard, the aeronaut, and M. Nadar were the principal agents in organising the balloon service.

NOTES

At the Anniversary Meeting of the Royal Geographical Society, held on Monday last, the Royal medals for the encouragement of geographical science and discovery were presented. The Founder's Medal was given to Sir W. Baker for Colonel Henry Yule, C.B., in recognition of the eminent services he has ren-