

ADDRESS OF MAJOR-GENERAL PITT-RIVERS TO THE
ANTIQUARIAN SECTION AT THE ANNUAL MEETING
OF THE INSTITUTE, HELD AT LEWES.¹

Perhaps I cannot do better than to devote this address chiefly to a recapitulation of my own investigations and those of others with whom I have been associated, in Sussex and Kent. Although I have not the honor of being a native of either of these counties, I happen to have had the opportunity of making excavations from time to time in camps, tumuli, and other monuments of antiquity in this district. I cannot therefore plead entire ignorance of the antiquities of this part of the country as an excuse for any shortcomings that may be noticed in what I am about to say. I must rather ask your indulgence upon grounds of the pressure of other business, and the length of time which has elapsed since the excavations I speak of were discontinued, owing to change of residence to another part of the country

Up to the present time, this meeting, under able guidance, has devoted its attention chiefly to the study of historic times and the history of this county in particular. For the majority of men and women this branch of archæology must always have greater interest, because we all know something of the history of our country, and to visit the localities in which great events have occurred helps us to realise the scenes with the accounts of which we are familiar. Antiquities—meaning, as I understand by that term, relics and objects of antiquity—in the study of historic times, serve only a secondary though still an important part, by giving us an insight into the life and habits of the people, the main events of whose career of war and conquest and

¹ Read August 3rd, 1883.

political development are already known. But when we resolve ourselves into a section for the special study of antiquities, it appears natural that we should turn to that portion of unwritten history in the knowledge of which antiquities play the chief part. In the study of pre-historic times antiquities are no longer to be regarded as accessories to a general knowledge of the people, they are the only evidence we have of them.

When in the moat of some Norman fortress we come upon a hoard of weapons associated with relics of the age of the Conquest, we know that they belonged to the people who invaded our shores in the eleventh century and marched to Dover; we know their language and that the stock from which they sprung was, roughly speaking, the same as that of the people with whom they fought, and that they introduced amongst us the names of some of the families that are living upon their estates at the present time. From the relics of this period little is to be learnt beyond the sphere of art and handicraft; the interest which attaches to such subjects is more sentimental than useful. The main outlines of the picture have already been built up in our minds through the agency of more reliable and direct evidence, and they do no more than supply some of the lights and shadows.

Very different is the problem to be solved by the archæologist when on the summit of some unfrequented down or heath, or on the sides of a river valley, a like discovery is made of the relics of pre-historic times, and far more complex are the requirements which have to be brought to bear on the discovery in order to reap from it the information which it is able to disclose. It so often happens that valuable evidence is lost, owing to the want of proper observation at the time of a discovery, that, as I am now addressing some who have not paid special attention to pre-historic archæology, it may be useful, perhaps, if I dwell for a moment on the course of investigation which has to be pursued in dealing with this subject.

Firstly, we have to put into requisition the services of the geologist, with his knowledge of the earth's crust, to examine the deposits and determine to what period of the earth's history the relics belong; whether to the

river drift, or alluvium, or to the more recent surface period; whether to a time when the surface of the land bore the same or a different aspect to what it does at present, or, if discovered in artificial banks and earthworks, whether any evidence can be gleaned from the amount of denudation that has taken place since they were deposited there.

Then comes the palæontologist, who examines the animal bones that are found in the same deposit in association with the relics, and from his classification of them we have to judge whether the deposit was coeval with the existence of extinct or recent animals, wild or domesticated breeds. By the quality of the bones and horns the wild are distinguished from the tame animals. The presence of the dog marks a distinct phase in the hunter's existence. The constant use of the horse for food shews, perhaps, that the real merits of the animal had been insufficiently appreciated, the presence of certain snails mark changes in the flora of the district, and the character of the woods employed for tools and weapons denote changes in the climate of the country, or, perhaps, the occasional presence of human bones amongst articles of food speaks of a condition of society that is different from our own. Nor does the work of the comparative anatomist end when it is discovered that the animals were domesticated, for up to quite the commencement of our era it is possible by a careful examination of the bones of domesticated animals to form some idea of the distribution of particular breeds. This was a part of the subject which occupied the attention of Professor Rolleston up to the time of his lamented death. Although I am able to distinguish some of the principal animal bones, such as those of the horse, ox, sheep, deer, etc., yet not having sufficient knowledge of comparative osteology to be able to rely on my own identifications, I was in the habit of sending him the bones found in different excavations, properly ticketed, and from them he was gradually accumulating a mass of information bearing on the distribution of pre-historic domesticated breeds.

After this the pre-historic archæologist takes up the thread of the investigation, and brings his experience to

bear on the forms of the relics themselves, for experience has proved that the forms of human art and handicraft, no less than the strata of geological deposits, or the breeds of animals, develop in continuous sequence, and the accumulated experience of successive archæologists enables us in many cases to determine at a glance by its form and material alone the place in sequence to which any object of antiquity belongs. If, for example, a bronze socket celt of the ordinary type, constructed to enable the bent handle to fit into a socket in such a way that every blow given to it in use had the effect of tightening rather than of loosening the hafting, were to be brought to any archæologist by a workman with a definite statement as to the position in which it was found, within certain limits it would be impossible that the archæologist could be deceived by any misstatement, because we know that the history of this weapon has been marked by a succession of improvements both of material and form, commencing in the Neolithic or Later Stone Age, and continuing over the whole of the period of unknown duration until the Later Bronze Age was reached. During this time the material was converted from flint to bronze, and the succession of forms shew constant endeavour on the part of the fabricators to make the implement more useful as an axe and the hafting more secure and firm, until at last the socket celt was developed, and on it are sometimes found in its ornamentation traces of the intermediate stages through which the weapon passed on its road to perfection. During this development many varieties were produced, some of which led to no further improvement, just as in the development of species, varieties of breeds were sometimes produced, which dying out led to no further results, but in every case it is easy to see from what stage in the main stem of development these side shoots branched off, and to assign to them their proper places in the general progress of the art.

If it had been possible, which of course it was not, that the varieties of art forms should have been as numerous and as complex in primitive times as they are at present, and that constant change without order or progress should have taken place, the difficulties of the archæologist would have been greatly increased. It is

because progress has tended to advance uniformly from the simple to the complex that an element of certainty has been introduced into our calculations, and this persistent tendency of primitive things to sameness must be held to be an answer to the observations frequently made by the opponents of archaeological research; for archaeologists, like all other bodies of men, have their enemies as well as their friends, who say to them, "you keep digging up the same thing over and over again, one of a kind will do as well as another without incessantly repeating the process." The things dug up are not absolutely the same, there are differences which are noticeable only to the expert, but it is the tendency of all primitive contrivances to sameness which gives so much importance to minute varieties as indications of the direction in which progress has been going on.

But we should be wrong if we assumed that the changes in past time any more than at present were uniformly in the direction of improvement, for we have degeneration as well as progress to take into account as a persistent element of change. Not only have there been in times past as there are at present, communities living side by side with normal communities in a lower condition of culture than the average, using commoner and simpler things, but there is also a tendency for every form of art and industry to degenerate as soon as it is superseded by more advanced forms.

We know that not only did there exist in the bronze age communities who used flint for tools, but in the iron age the same material appears still to have been employed by some of the poorer class of people for like purposes. But there is a character of degeneration about the implements so constructed, and the same labour was not expended upon them as when flint was the only and best material of which tools could be made. Then again in studying the ornamentation of any given period upon which the archaeologist so much depends for fixing the age of any relics that may be submitted to him, it is found that the ornamentation of any given period is very frequently made up of survivals from the ornamentation of previous periods, or of imitations of contrivances no longer in use, but originally intended to serve useful

purposes; and in the same way that the strata of any given geological period is made up of re-arrangements of previously existing strata, or the language of any race of men is made up of contractions, abbreviations, and phonetic decay of previously existing languages, or the written character of any age is composed of symbols derived from pictorial representations of an older age, so the ornamentation of any given race or time has been in a great measure produced by the realistic degeneration of forms of art of a period which preceded it, and this enables us to establish a sort of chronology by which within certain limits the age or place in sequence of any object of antiquity may be determined by its form alone, apart from the corresponding evidence of position and associated animal remains to which I have referred.

After all has been done that is possible by these means to determine the age of the relics, then comes the question which for most people has greater interest, viz. : who were the people by whom the things were made and used? and for this, in studying pre-historic antiquities, we are dependent entirely on the labours of the physical anthropologist. This is generally an investigation apart from the ordinary work of the archæologist, and reference has frequently to be made to some one whose knowledge of anthropometry enables him to form an idea of the proportions of the various bones. By measuring the least circumference of any human bone that may be discovered in association with the relics, and comparing it with the greatest length of the bone, it is possible by the perimetral index thus obtained, to express in figures whether the individual to whom it belonged was a thick made or a slender person. The various processes have to be examined for indications of the peculiarities which are characteristic of race, the sections of the bones are looked at to see whether they are round, or have the flat platycnemic contour which is usual in some of the earlier breeds of men, the relative length of the arms and legs as compared with the trunk is also recognised as a distinct peculiarity. By a measurement of the length and height of the bony opening of the eye, the orbital index is obtained, which is a distinct racial test; by the nasal index it is seen whether the race was characterized by a

broad or a narrow nose; by the cephalic index, round-headed or brachycephalic are distinguished from dolichocephalic or long-headed types, and by the bony structure of the face we are able in some cases to distinguish the broad massive jaw and often aquiline nose of the Celt, from the rounder and less marked features of our Anglo-Saxon forefathers.

By this means a very fair idea can be obtained of the racial peculiarities of the people, but in order to arrive at satisfactory results, it is often necessary to restore the bones with gelatine and re-construct them. A few skeletons are insufficient: they must be measured in sufficient number to obtain reliable averages, and this is a point in which the pre-historic archæologist sometimes fails to receive adequate assistance from persons, who, as owners of property or otherwise, might be in a position to help him. It not unfrequently happens that well intentioned persons shew an irrational anxiety to have skeletons immediately re-interred, even sometimes with religious rites. I have known this claim set up by well-meaning Christians, on behalf of the remains of people who would certainly have eaten them if the suggestion had been made to them in life. It is right that every possible protection should be given to the remains of the dead as long as anything is known about the people that the bones belonged to. We respect the bones of the dead as a tribute to the memory of the people when they were living, and a due regard for the remains of the dead is a most necessary provision in aid of the law, but after all recollection of them has been wiped away, a morbid reverence for the calcareous portions of miscellaneous dead bodies is not only superstitious in itself, but it greatly impedes the advancement of knowledge. The difficulties of the subject are great enough without needless obstruction, for after all has been done that osteology can do to throw light on the races of pre-historic times, there is one point in which archæological investigations must always fail us, and this arises from the fact that in the determination of Race, character, refinement, energy, beauty, and every human quality, the fleshy and perishable parts of the body are of far more importance than the bones.

I have made these few general remarks rather for the

benefit of the uninitiated than for the information of archæologists, who are familiar with the subject, in order to show how various are the qualifications which have to be brought to bear on a pre-historic discovery, how easy it is for any intelligent person to assist, or for anyone not versed in these matters to thwart and hinder the investigations of the pre-historian. What is most to be desired is, that every discovery should at once be placed in the hands of some known and reliable man, who, if he does not possess all the requisite qualifications himself—and there are few who do—is at any rate in communication with others from whom the necessary identifications can be obtained, and with whose assistance the investigation can be worked out thoroughly. In the course of my wanderings, either as Inspector of Ancient Monuments, recently, or at various other previous times, I have met with so many cases in which evidence of great value has been lost through these causes, that I think the matter cannot be too forcibly urged upon the attention of a local archæological meeting, having for its object the spread of archæological research.

Having said this much upon the elementary part of the subject, I will now give a brief account of my own investigations and those of the archæologists who have been associated with me in this neighbourhood. By taking this course you will know that what I speak of, if it does not relate to the most recent or the most important discoveries, is, at any rate, original, and not liable to misinterpretation through being delivered at second hand.

Of all the vestiges of pre-historic times which remain to us, camps afford perhaps the most interesting and reliable evidence of the every day life of the people. But the examination of them is a work of great time and patience, and the relics generally discovered are of little intrinsic value beyond the actual evidence they convey; and for this reason, camps have received comparatively little attention.

From the tumuli we derive evidence of the things deposited with the dead during their funereal obsequies, but the relics found in camps and dwellings are the things that were in every day use, and, therefore, give us a better insight into the social condition of the people.

But it is proved that of these camps, many continued to be occupied for a long time, perhaps for many generations after they were made, and in some cases by people of another race; and it is always necessary, therefore, in making excavations, to distinguish between the original construction and ultimate occupation of the place. The way of doing this may be briefly explained. When an earthwork was about to be built, in those days when labour was cheap and abundant, a large number of people were probably congregated on the spot, and they left things about on the ground, and broke their rudely baked and fragile earthenware vessels, fragments of which soon became strewed upon the surface, and it was not thought worth while to pick them up again. When the ditch of the fortification was dug, the earth from it was thrown up behind to form the rampart, and all that was lying about on the surface of the ground was soon covered over, and by that means preserved for ever; so that in examining one of these camps, it is only necessary to cut a section through the rampart until the old surface line is reached, which in a chalk country is usually very distinctly marked by a dark line, indicating the old line of turf. All that is found on this old surface line must be of the age of the construction of the camp, or earlier; and from the quantities of fragments of pottery very often found, some with characteristic ornamentation upon it, is easy to distinguish what belongs to the age of the camp, as the result of a large congregation of people, from the few things of a different kind that may have been accidentally dropped there earlier. By this means a comparison is also able to be made between the relics which are of the age of the first construction of the camp and those found in pits or other excavations in the interior, which may, some of them, be of a later date. In this way, by noticing carefully the position in which things are found, the whole history of the camp may be worked out; but it is a work of great time and patience, because it sometimes happens that several sections have to be dug before anything of the nature of evidence is obtained.

In September 1867, I walked over the greater part of the Sussex Downs, and examined the various camps that are

situated on the summits of the hills, including Beltout, Seaford, Newhaven, Mount Caburn, Hollingbury, White Hawk hill, Ditchling, Wolstanbury, Devil's Dyke, Chanctonbury, Highdown, St. Roche's Hill and Cissbury, which by some have been supposed to be a system of forts, combining for the defence of the coast.

But this supposes a degree of civilization and organization for national purposes for which there is no warrant, either in the account which Cæsar gives of the condition of the inhabitants of England, or in anything that is to be gleaned by analogy from other people in the same condition of culture. It seems more probable that these camps were the strongholds of independent tribes constantly at war with each other, and are the places to which they resorted with such goods, and perhaps cattle, as they could get together during a predatory neighbourly attack. The general absence of water, in connection with these camps, has been given as a reason for supposing that they were not fortifications or habitations of any kind, but this may be accounted for in two ways, either by supposing, what there is good reason for believing was the case, viz., that in early times the country being much more wooded, and consequently much wetter than at present, springs ran out at a higher level in the hills than they do now, or that, as the predatory attacks of uncivilized tribes generally last only a short time, and the attacking party seldom sit down to a protracted siege, the defenders may have carried with them in skins or other vessels sufficient water to last a few days.

Little can be gained by a superficial examination of these camps beyond the fact that they are many of them associated in an especial manner with the occurrence of flint flakes on the surface. This gives rise to the questions to which I have already adverted, viz: up to what time was flint in use for certain of the rougher purposes of industry, and also may not the same sites have been occupied during successive periods by people using different kinds of tools.

The art of war has been so uniform in its prevailing features throughout time, that there is little in the principles of military defence to distinguish the camps of one people in a primitive condition of life from those of another,

and although it is an established fact that the camps of the Britons were thrown up more in accordance with recognised principles of defence than those of the Romans, this arose probably more from the contempt in which the latter people held their enemies, and their greater regard for interior economy, discipline, fuel and water supply, than from ignorance of the requirements of a good defensive position. Attempts have been made with some plausibility to classify these camps according to their outlines alone, apart from their associated relics, but I hardly think we have sufficient evidence at present for accepting any such classification, and I shall presently shew reason why we ought to be very careful in accepting any such theories.

The only real method of throwing any light upon the subject is by means of excavations, and I will therefore give a brief account of the excavations conducted in Cissbury Camp by myself and others, which may be regarded as a good example of the way in which the work of successive explorers may be made to combine in producing satisfactory results.

Up to the time of my first discovery of the great flint workshop there in 1867, nothing had been done to associate these Camps in any way with the fabrication of flint implements. The discovery of an isolated specimen of a flint celt here and there had been recorded but without further results.

The interior of Cissbury Camp, as most people in this neighbourhood are now aware, is honeycombed with circular basin shaped depressions, almost touching each other in their circumference. They had given rise to various speculations, and by some had been supposed to be habitations, by others tanks for water and so forth. My attention having been especially drawn to the occurrence of flint flakes by the examination of other camps, I was struck with the enormous number of them in the neighbourhood of these pits, and, moreover, evidence of a flint workshop was shown by the different kinds of flakes that were seen in different spots. Whilst one place was scattered over with large flakes apparently thrown off in the first rough shaping of a celt, in other spots small chips collected together shewed where the tools had been trimmed to perfection by fine chipping. This led me to excavate a

number of the pits which resulted in the discovery of a large number of flint celts in various stages of perfection, most of them apparently abandoned and thrown away during the process of manufacture, perhaps from some flaw or defect in the composition of the material. The fact of its being a flint workshop was placed beyond doubt, and it became evident that the use of the pits was to obtain flint for the formation of these tools, which was further confirmed by observing that seams of flint occur in this chalk at such a depth as to be easily reached by such basin-shaped depressions as were found there. The result was duly recorded by me in the *Archæologia*.¹ Canon Greenwell subsequently made excavations in these pits, and confirmed my discovery in every particular, but both Canon Greenwell and myself failed to discover the extent and depth of these flint mines at that time, owing to the great difficulty which always exists in distinguishing made chalk from the disintegrated portions of the natural chalk near the surface, and also to the fact that nothing had, up to that time, led us to suppose it likely that flint would be sought at such a distance beneath the surface as was afterwards found to be the case. Hardness of surface is no criterion of having reached the undisturbed chalk, for a made surface of chalk will become by the absorption of water in time even harder than a natural surface, and much valuable time has often been wasted before the question of having reached the undisturbed surface is decided, the only real proof being when the chalk flakes off in stratified layers, and this stratification is not reached in some cases, even in the natural chalk, until some depth beneath the surface. Although we reached the pure chalk, in every case it was only, as we now know, the hard surface of the filling of deep shafts which lay beneath, and in this way we missed an important discovery.

The way in which this discovery was afterwards made is of interest. About the time that my first excavations were being made at Cissbury, a railway cutting was being made through the chalk between Frameries and Chinay, near Spiennes, in Belgium, and this laid bare several deep shafts, which were found to lead down from pits on the surface, similar to those of Cissbury, at the bottom of

¹ Vol. xlii, p. 27.

which galleries were found, which had been driven in different directions to work out the veins of flint. This gave a much more extended notion of the flint mining operations of the Neolithic people than had been before thought of, and specimens from Spiennes soon became common in all the museums of Europe. Shortly after this, Canon Greenwell happening to be carrying on his investigations near Brandon,¹ which has always been the great workshop of the gun flint manufactory, chanced to come upon a collection of pits similar to those of Spiennes and Cissbury, which were known in the locality as Grime's graves; and he decided to excavate them, in order to determine whether they also had shafts and galleries like the Spiennes pits. He was rewarded by the discovery of both shafts and galleries, and in the *debris* with which the pits had been filled up nearly to the top, the deer horn tools and picks were discovered with which the shafts had been made. This led him and those with whom he had been associated in the Grime's graves' excavations to believe that at Cissbury also similar shafts would be found if the excavations were carried deep enough, and, accordingly, Mr. Tyndale of Brighton excavated one of the collection of pits in which we had been digging, and found a shaft thirty-nine feet deep, beneath the superficial deposits. One of the chief points of interest connected with this discovery was the fact, that whereas in the superficial deposits Canon Greenwell and myself had found only the remains of domesticated animals, those at the bottom of the deep shaft discovered by Mr. Tyndale, after being examined by Professors Rolleston and Boyd Dawkins, were found to contain wild animals, including, amongst others, *bos primigenus* and wild boar. This determined the age of the flint mines to be of the true Neolithic period. Mr. Tyndale died shortly after making this discovery, but the excavations were carried on by Mr. Ernest Willett,² and, subsequently, by myself, without any further results of importance beyond confirming the fact that the Cissbury pits corresponded in nearly every particular with those of Spiennes and Grime's graves. In the filling of one of the shafts near the surface

¹ Journ : Ethnological Soc. Lond., 1870, vol. ii. p. 419.

² Archæologia, Soc. Antiq. Lond., vol. xlv, 337-348.

a few fragments of British pottery were found, and in the superficial deposits both British and Romano-British pottery was abundant; but in the lower parts of the shafts none was found; and if the flint workers used pottery at all it must have been used sparingly.

But another important point still remained to be investigated, and this, having resumed the excavations myself in 1875, it fell to my lot to be the means of elucidating. The pits, as has already been said, are entirely within the ramparts, the latter enclosing them within its circuit, except at one point, where they break through the line and are found outside of the camp, and the question arose as to whether any excavations could be made which would decide the relative age of the two works, and so set speculation at rest upon this point. I had previously cut two sections through the ditch and one through the rampart with this object, but without satisfactory results, beyond finding flint flakes in the silting of the ditch and two or three fragments of pottery beneath the rampart. I therefore determined to excavate the ditch at the place where it appeared most likely that shafts might be found beneath the rampart. Having decided the course to be pursued, as the result of my previous excavations, and being at the time President of the Anthropological Institute, I obtained the appointment of a committee to assist in the investigation, most of the members of which visited the spot during the excavations.¹ In the actual conduct of the excavations Mr. Park Harrison was present with me during the greater part of the time. The result was that shafts were found beneath the ditch and rampart, in such a position as to prove beyond all doubt that the flint works had been abandoned and the shafts filled in before the rampart was made. The hill had, therefore, been turned into a fortress after flint mines had been abandoned, but at what actual time, whether during the bronze or the iron age, must still be considered an open question, although its occupation in Roman times has been ascertained by pottery found on the surface.

This settled a question which up to that time had always been much discussed, and although the probability had always been in favour of the result, as it turned out,

¹ Journ. Anthropol. Inst. Great Britain, vol. v, p. 357; vol. vi, p. 263, 430; vol. vii, p. 413.

the evidence, such as it was, had previously tended the other way. A model of these excavations is in the temporary museum here.

In the shafts and galleries beneath the rampart, a skeleton of a female was found, one of the few certainly Neolithic skeletons that have been discovered in this country.

After this, Mr. Park Harrison, who had previously assisted me, carried on some further excavations on his own account,¹ which resulted in the discovery of another skeleton in a shaft in the interior of the camp, and what was perhaps of equal consequence, in the material with which one of the shafts had been filled up to the top, it was found that small pits, believed to be connected with habitations, had been cut by subsequent occupants of the camp, thereby affording additional evidence of the occupation of the camp after the flint mines had been abandoned. I shall have occasion to refer to these small pits, subsequently, when speaking of the excavations at Mount Caburn.

The two skeletons, both of which were those of adults, were remarkable for their small size, the height of the male being 4 feet 11 inches, and that of the female 4 feet 9 inches, and both were dolichocephalic or long-headed, the cephalic index being 74 and 71 respectively. Both had platycnemic or flat tibiae. The skull of the female was remarkably large for the size of the skeleton. The measurements of these skeletons, which are recorded in detail by Professor Rolleston,² are of interest, but are insufficient, from the small number of individuals, to throw much light on the peculiarities of the race, and it is to be hoped that more skeletons will be found there.

Shortly before this I had made some excavations in Highdown Camp, near Worthing, which led to my finding a human skeleton and a bronze knife in a position to show with great probability that the camp belongs to the Bronze Age.

In 1868, in conjunction with Mr. Park Harrison, Mr. Hilton Price, and others, I made a cutting through the rampart of the camp at Seaford,³ which showed that it

¹ Journ. Anthropol. Inst., Vol. vii, pages 412-433.

² *Ib.*, vi, 1879, and viii, 1879.

³ *Ib.*, vi, page 287.

was probably constructed in British times, which was also in accordance with discoveries made in a tumulus in the interior of the camp. The cemetery at the bottom of the hill was found to be of Roman Age, and the more recent and extended excavations of Mr. Hilton Price and Mr. John Price, in the cemetery, tend to confirm this opinion.¹ The camp itself probably originally surrounded the hill, part of which has been washed away by the sea.

I ought not to omit to mention the opening of the Black Burgh Tumulus,² about half way between the Devil's Dyke and Brighton, which took place in 1872, and which led to the discovery of a crouched up skeleton with a small urn, a neck-lace of shale beads, and a small thin triangular bronze knife dagger with two rivets to attach it to the handle, which latter had decayed, and it was associated in the grave with flakes and scrapers of flint. The occurrence of these small thin triangular bronze blades generally in round barrows, in various parts of England, goes far, in my judgment, towards proving the truth of Canon Greenwell's opinion, that they were in reality the earliest and perhaps the only bronze implement, except the small triangular axe, in use at the time of the round barrows, and that the occurrence of nothing else of bronze but these knives in the graves of this period, is not to be attributed to the poverty of any particular district in which they occur (as has been supposed by some), but to the rude culture of the people generally. From its small size, and simple form, this kind of blade would naturally be the kind of weapon used when bronze was scarce, and the more advanced and larger rapier and leaf-shaped forms of swords are certainly developments from this earlier form, and were introduced as the art of metallurgy improved.

In 1877 and again in 1878, with the permission of Sir H. Brand, I made some excavations in Mount Caburn Camp, which is so well known to the inhabitants of Lewes, and concerning the age of which speculation had been rife for years. Of the fact of its being a defensive work there can, I think, be little doubt, because the stronger sides of the Camp on the south are fortified with

¹ Journ. Anthropol. Inst., vol. x, p. 130.

² *Ib.*, vol. vi, p. 280.

a simple small ditch and rampart, which is enlarged and doubled on the weaker side, and this is a recognised feature in the art of defence of the Britons. I do not find that any notice had been taken by former writers of a number of small depressions in the interior of the Camp. These I opened, and found them to be small pits, three to five feet in diameter, and about the same average depth, too small to have been themselves used as pit-dwellings; and if used in connection with habitations at all, they must probably have been used as cellars within the houses. They were certainly not graves. They were filled to the top with rubble so as scarcely to be distinguishable on the surface, and their contents consisted of quantities of fragments of pottery, some with a peculiar kind of scroll ornamentation upon it, and two entire pots of the shape of a saucepan without the handle, combs of deerhorn of the kind known to have been used in the process of weaving, deer-horn handles, iron knives, iron spearheads, an iron ploughshare, an iron spud, an iron hammer, an iron adze, an iron bill-hook, a bronze ring, iron door fastenings, and some curved iron objects, which have been since ascertained to be keys. Besides these, there were several weights of chalk with a hole bored at one end, evidently for suspension. These it is conjectured are weights used in weaving to hang down the warp, indeed it has been suggested from the number of objects connected with weaving found in the pits, spindlewhorls, combs, &c., that the pits may have been holes dug in the ground to admit of these weights hanging down beneath the surface of the ground whilst the weaving was going on above, an idea derived by analogy from certain looms used in India which are so constructed, and suggested by Col. Godwin Austen. If this was the case, however, the whole camp must have been one large weaving establishment, because the pits are within 20 or 30 feet of each other and some closer, all over the interior of the camp.

All the objects found in these pits are recognised as belonging to the Iron Age of this country, by some called Late Celtic, extending from perhaps 300 B.C. to the time of the Roman Conquest. No trace of Samian pottery was found in these pits, except one or two minute fragments, and these quite on the surface, where they may

have been deposited after the pits were filled up, nor were any oyster shells found except in the same position, for the experience of many diggings has proved to me that, in this part of England at least, oysters were not eaten by the Britons before Roman times. An oyster shell is almost as certain an indication of the presence of the Romans in Sussex as a piece of Samian pottery. Snails seem to have been common British food at that time, and domesticated animals—the pig, short-horned ox, goat, horse, badger abounded, and the remains of fox was found: both calves and lambs were eaten, and some bones of the roe were found. But the red deer, although its horns were used as knife handles, seems to have been little used for food, and as the fallow deer had not been imported into England at that time, no trace of it was discovered, but a larger ram was identified by Professor Rolleston by its horns as being the same breed, which is now confined to the Shetlands and other northern districts.

All these differ essentially from the wild animals found in the shafts at Cissbury, and denote a more recent period, but they correspond to the animal remains found in the surface deposits there.

Amongst the animal remains found in the pits at Caburn must not be omitted, in separate pits, a human femer and a lower jaw of man, the latter a well-formed specimen, not unlike what might be expected to have belonged to a member of the Celtic race. How they came to be mixed up with the remains of animals used for food must be left to conjecture, unless we are to conclude that there existed in those days men so lost to all sense of propriety as to abstract human bones for the purpose of measurement which is hardly probable, it must be regarded as a sign of rough times, and perhaps even of famine during an extended siege.

But the most noticeable relics for fixing the date of the work, found in these pits, consisted of several tin-coins, having on them the debased representation of some animal. They had been cast in strings, and had runlets of metal between the coins. They are ascribed by Mr. Evans in his work on British Coins to the Late Celtic period, that is, the period immediately preceding the Roman Conquest.

Excavations in the ditch and rampart of this work

shewed that in all probability these parts were of an earlier date than the relics found in the pits. The pottery found beneath the rampart was of a ruder kind than that found in the interior of the camp. The remains of holes in the solid chalk beneath the crest of the rampart shewed that it had originally been surmounted by a pallisade, and beneath the second or outer rampart was found the remains of a wattled house, which had been daubed with a mixture of lime and mud. The house had probably been set fire to, and the daubing thus baked by the flames had preserved the impression of the wattles so clearly that the size and form of the basket work could be distinctly traced.

The relics from Caburn are in the temporary Museum

All these excavations were described by me in the *Archæologia*,¹ and the distribution of like relics in other parts of the country noted in much greater detail than the public could be expected to read or follow. It is enough for my present purpose to say that three precisely similar pits to those of Caburn, containing exactly the same class of relics, were afterwards found by Mr. Harrison in the camp at Cissbury, to which circumstance I have already referred. These pits contained a specimen of the chalk loom weight, an iron key similar to the one described from Caburn, a bone weaving comb, and pottery with the same ornamentation upon it, so that it is certain that both these camps were occupied at one time by people in a connected stage of culture habitually using the same things. Since then, at Winklebury camp, in Wiltshire, close to my own house, I have found a number of pits of the same character and dimensions, containing numbers of the same loom weights associated with pottery of a somewhat similar but more primitive kind, and a bone weaving comb; and at Spettisbury camp, near Blandford, a curved key, of the peculiar Caburn type, was found some time ago, and is now in the British Museum; so that we are now in a fair way of tracing, with some degree of certainty, the area inhabited by these particular people in the south of England, who, from the period which the relics assign to them, can certainly be none other than the Belgæ, whom Cæsar describes as inhabiting the southern parts of England in his time.

¹ Vol. xlvii, p. 423.

When these camps were first constructed is another question upon which further investigation may throw more light ; but the fact of their having been occupied up to Roman times is proved by Samian pottery and other relics of the Roman age having been discovered in nearly all of them in superficial deposits only. There can be very little reason to doubt, therefore, that these are the actual *oppidæ* which Suetonius refers to as having been reduced by Vespasian during his conquest of this part of England. Excavations in the camp adjoining Caburn (called by me Ranscombe camp) proved that it also was British, but the evidence of Roman occupation is stronger than in the case of Caburn, so that in my paper on the subject I have been led to consider the possibility of its ramparts having been utilized by the Romans during an attack on Caburn. Whilst nothing but British pottery was found in the body of the rampart the surface deposits were thickly strewn with Samian pottery.

Before concluding this address, let me briefly allude to excavations made in one other camp, in order to show how careful we must be in assigning a date to any of these structures without proper excavations.

On the top of the Downs above Folkestone is a large earthwork commonly called Cæsar's Camp, consisting of a ditch and rampart following the defensive line of the hill, and strengthened by an inner circle or keep in one corner. It resembles in every respect other camps that are to be found all over the country, and it was supposed by all who have described it to be British, the name of Cæsar being one commonly given to any ancient fortification about which nothing is known. Several cuttings made through the ramparts in 1878, in conjunction with Mr. Hilton Price, however, proved beyond doubt that it was not British but Norman.¹ The objects found beneath the ramparts tallied with those found in the interior. A coin of Stephen, horse-shoes, buckles, spear heads, and even fragments of stone with Norman carving upon them, proved that it could not, with any probability, be set down to an earlier period than the time of the Conquest. It is known that the Normans of that time often lived

¹ *Archæologia*, vol. xlvii, p 429.

on earthen mounds, with nothing more than wooden buildings upon them, and it would not surprise me, after this discovery, to find that many of the camps which have an inner and outer intrenchment, the former situated in one corner like a keep, and which are supposed to be British, are in reality no earlier than this date. I may therefore conclude this address by reiterating that in my opinion nothing but careful and patient digging can throw further light upon these camps, and they afford ample field for the investigation of independent archæologists, without treading upon each other's heels.

In conclusion it may perhaps interest the meeting to know that during the past year, the long contemplated Bill for the Preservation of Ancient Monuments, so perseveringly advocated by Sir John Lubbock, has come into operation with some modification of its original scope and intention. Having been appointed Government Inspector of Ancient Monuments in Great Britain, it has been my business to see its provisions carried out. It is now purely permissive, that is to say, it only enables the owners of certain of the more important monuments (mentioned in a Schedule), to place them under the protection of the Act, if they think proper. It is not compulsory, but when once registered by the voluntary act of the owner, neither he nor his successors, nor any one else can destroy or damage them without incurring the penalty of a fine. It in no way interferes with rights of ownership, and the monuments can be sold or dealt with by their owners as heretofore, barring this one power of destruction, which ceases with the registration of the monument under the Act.

Owing to its permissive character the Act will no doubt fail to include all the monuments which it is desirable to protect, but the operation of the Bill has been encouraging up to the present time. About a third of the scheduled monuments in England have been already registered, and are for ever saved from destruction, and there is every reason to believe that the greater part of the remainder will also be shortly included.