Notices of Archaeological Publications.


We rise from the perusal of this very able work with feelings of great satisfaction. It contains a vast amount of interesting information upon all the subjects which it embraces, and it is written in so clear and perspicuous a manner as to render every subject that is dealt with in it perfectly intelligible; and, above all, no hasty and inconsiderate views are ever put forward, but, on the contrary, the most praiseworthy caution is adopted, and great care taken not to attribute greater weight to particular facts than they are fully entitled to bear. The whole is illustrated by coloured plates and woodcuts, which add greatly to the value of the work.

We will proceed to give a brief summary of the contents of this very useful publication.

There are two principal divisions in which caves may well be considered, the physical and biological. To the physicist and geologist they give an insight into the wonderful chemistry and other agencies by which changes have been and still are wrought in the solid rock, and they enable us to understand not only the changes that have taken place in the interior of the earth, but also how valleys and ravines have been formed, especially in calcareous districts.

The biological division Mr. Dawkins defines "as an inquiry into the remains of man and animals found in caves, and into the conditions under which they lived in Europe." That man and domestic animals have used caves from the earliest times of which there is any history to the present day there can be no doubt; and as they have served for the dwellings of man in his lifetime, so his bones have been buried in them after his death. Mr. Dawkins thinks that caves containing remains of this kind may well be termed historic, because they may be brought into relation with history; but he well remarks that "the term does not relate to history in general, but to that in particular of each country which happens to be under investigation."

Caves may also naturally be supposed to be the places where the remains of men that lived in Europe before the dawn of history would be found, and such remains when found may lead to the discovery of ancient races, who lived in Europe in long forgotten times. The bones, also, of domestic animals may lead to the determination of the order in which they appeared or disappeared.

The caves also contain the bones of animals that lived in Europe in the earliest times, and are now extinct or only to be found in other countries, and these may show changes both in climate and in the distribution of land and water.

To the consideration of all these points Mr. Dawkins applies himself. He divides the biological branch of the subject into three: 1st, the caves within the limits of history; 2nd, the prehistoric caves, or those which have been inhabited between the historical and the remote geolo-
gical era, in which the extinct mammalia of Europe existed; 3rd, the
caves containing the remains of extinct animals, which geologists term
pleistocene, because a larger percentage of existing animals were then liv-
ing than in the preceding Pleio—Meio—and Eocene periods. Mr. Dawkins
thinks it more convenient to work backwards in time from the basis
offered by history than to begin with the oldest division, and bring the
narrative down to the present day; and this was clearly the right course,
for what is known in the latest will often throw light upon what is un-
certain in the earlier periods. Mr. Dawkins gives a very interesting
history of cave exploration in Europe, which will well repay an attentive
perusal.

The second chapter is devoted to the Physical History of Caves. Some
caves have been formed by the action of the sea, and others by volcanic
action. Caves, also, are found in sandstone formations, which have been
caused by the mere mechanical action of water. But the most important
caves are in calcareous strata. The openings to these are generally in
the sides of valleys and ravines, and the transition from the valley to
the ravine, and from the ravine to the cave is sometimes so gradual
that it is manifest that all three are due to the same causes. In all
cases water has flowed through them, but in some an outlet for the
water has been found at a lower level, and its former course has been
left dry. Funnel-shaped cavities called "pot-holes" or "swallow-holes"
are found in the same districts as these caves.

Mr. Dawkins then proceeds to prove that the chemical action of the
carbonic acid in rain water, and the mechanical friction of stones, sand,
and gravel, set in motion by water, were the origin of caves, pot-holes,
ravines and valleys. This proof is established by a very clear account
of some of the most remarkable caves that have been examined. This
examination shows that water was the main agent. The limestone is
so full of joints and interstices that water rapidly sinks into it, and
forms small streams, which follow the dip of the strata. The mere
passage of stones and gravel along these channels gradually enlarges
them, whilst carbonic acid, which is invariably contained in rain water,
dissolves the limestone itself. The acid-worn surfaces of the interior of
the caves, and the large quantity of carbonate of lime carried away in
solution by the water show the effects of the carbonic acid, whilst the
marks on the sides and bottom of the caves bear witness to the fact that
stones and other hard substances have been forced against them by the
action of the water. And the same causes are in operation and produc-
ing the same effects in some caves at the present time. No sub-
terraneous convulsion could have produced the caves, otherwise the solid
rock, which generally exists in the floor and roof, would have been rent
asunder. Wherever there are now caves without any streams running
through them, the gravel, sand, and rounded pebbles that are generally
found in them, show that formerly streams ran through them. "It is
obvious," Mr. Dawkins says, "that ravines and valleys are due to the
operation of the same causes. The ravine is merely a cave which has
lost its roof, and the valley is merely the result of the weathering of the
sides of the ravine."

In treating of the caves in the historic period in Britain, Mr. Dawkins
gives an account of the wild and tame animals during that period, and
he states that the principal changes in it were "the extinction of the
bear, wolf, beaver, reindeer, and wild boar, and the introduction of the
domestic fowl, the pheasant, fallow deer, ass, the domestic cat, the larger breed of oxen, and the common rat; and as this took place at different times, it is obvious that these animals enable us to ascertain the approximate date of the deposit in which their remains happen to occur.” A description is also given of the wild animals on the Continent during the same period.

In the third chapter the Historic Caves in Britain are dealt with, and this period cannot be extended further back than the invasion of Julius Caesar, B.C. 55. After mentioning the wild and domestic animals during that period, and the light their remains throw upon the period at which the deposits in caves were made, Mr. Dawkins thoroughly considers the contents of the very remarkable Victoria Cave in Yorkshire. In it were found, in the upper stratum, coins of Trajan and Constantine, ornaments and implements of bronze, and some brooches of singular taste and beauty, iron spear-heads, daggers, nails, spoon-brooches of bone, spindle whorls, beads of amber and of glass, bronze finger rings, armlets, bracelets, buckles, and studs, fragments of Samian ware and Roman pottery, and quantities of broken bones of animals. From a very careful examination of the remains so found the inference is drawn that the cave was inhabited during the first half of the fifth century or afterwards, when the withdrawal of the Roman legions had left Britain a prey to the barbarian invaders, and that the presence of works of art can only be accounted for on the supposition that men accustomed to refinement were driven by the pressure of some great calamity to take refuge and live in these caves a half-savage life; and the reference to existing history strongly confirms these inferences.

We can only advert to some remarkable brooches found in such caves, which Mr. Franks terms “late Celtic” work, and which are unlike any Roman brooch properly so called. The style of these circular brooches corresponds with that of the illuminated Irish Gospels. One of them represents a dragon, with its eye made of red enamel; another, shaped like the letter S, has its front composed of an elaborate cloisonné pattern, in red, blue, and yellow enamels. The conclusion which is drawn as to these articles is, that they are of British manufacture, and were probably made in Yorkshire. In the course of this discussion a passage—which is said to be the only reference to the art of enamelling in classical writers—is cited from Philostratus, a Greek, who joined the court of Julia Domna, the wife of the Emperor Severus, in the beginning of the third century; and, as this passage does not appear to have been fully explained, we will endeavour to place it in its true light, though the “crabbed Greek” is anything rather than perspicuous. Philostratus, in dealing with a wild boar hunt, describes the characters of the youths that took part in it, and then speaks of their horses as λευκός τις και μέλας και φωινίς, αργυροχάλκινοι και στικτοί και χρυσοί τα φάλαρα. ταύτα φασὶ τα χρώματα τους iv Ὀκεανώ βαρβάρους ἀγγείων ἡ τοιχία τοῦ σπηλαίου, τα δὲ συνυπασθα καὶ λυθοῦσα καὶ σώζειν ἡ ἐγγράφη. [Philostr. Icon. lib. i. C. 28. Edit. Kayser, p. 402.] M. de Laborde holds that this passage refers to Gaul, and especially to Belgica. [Notice des Emaux du Musee du Louvre, 1855, pp. 25-26.] But Mr. Franks thinks that it relates to Britain, and Mr. Dawkins agrees with him. Now nothing can be clearer than that τους ἐν Ὀκεανώ βαρβάρους can mean nothing else than the barbarians, who were in or surrounded by the sea; and it evidently refers to some islanders, and cannot possibly apply to any persons on the Con-
tinent. Similar expressions are extremely common in the classics; and when used with reference to places, they always mean in, that is within, the places, as τὰς ἐν Σικελία πόλεις, the cities in Sicily. We venture to render the passage—"Each horse is white or roan (qu.), or black, or bay, and they have silver bits, and as to their trappings, they are marked and golden. They say that the barbarians (in the islands) in the ocean pour these coloured metals into heated bronze, and that they unite together and become as hard as stone, and preserve whatever may be inscribed upon them." The word στικτοί simply means marked or punctuated in any manner or by any thing; and we venture to think that we ought to read τῷ χρυσῷ instead of καὶ χρυσῷ: and then it would mean that their trappings were adorned or enamelled with gold. Again, χρώματα does not mean simply colours, as Mr. Dawkins renders it, but coloured metals or other materials, as the context shows, and two subsequent passages in the next few lines prove. Two remarks must be made on ἑκχέω; it not only means to "pour," but to "pour in a liquid state," and therefore the metals were poured whilst in a state of fusion. Nor does it mean to pour on, but to pour into, and therefore the metals were poured into hollows in the bronze. Mr. Dawkins, speaking of brooches found in Yorkshire, says, "the enamel in all these examples seems to have been inserted into hollows in the bronze, and then to have been heated so as to form a close union with them." The first part seems exactly to agree, as far as it goes, with the statement in Philostratus; but the latter is wholly at variance with it. Be this, however, as it may, the fact that such manufactures went on in these sea-girt islands makes it in the highest degree probable that they were alluded to by Philostratus, and that Mr. Franks' opinion is correct.

The remains already alluded to are not the only deposits in this cave. In a stratum some 6 ft. lower were found a bone harpoon, a bone bead, rude flint flakes, charcoal, and bones of the brown bear, stag, horse, and Celtic short horn; and it is inferred from these relics that the cave was inhabited by man at so remote a period before the historical that its date can only be measured by the rude method by which geologists estimate the relative age of rocks, and by this the date is fixed at 4,800 or 5,000 years ago. However, Mr. Dawkins is very cautious, and speaks with great diffidence as to this date.

In a still lower stratum of grey clay the remains of the cave spotted hyæna were found in great abundance, and showed that they had occupied the cave in successive periods. Bones also of the red deer, bison, horse, the brown, grizzly, and great cave bear were there found; and last, but not least important, the fragment of a fibula of a man. Mr. Dawkins ascribes these remains to the Pleistocene period, and to the pre-glacial period, and he concludes that there have been three distinct occupations—first by hyænas, then by neolithic men, and lastly by the Brit-Welsh—and he thinks that the exploration of the cave is still incomplete.

In considering the Kirkhead Cave in Yorkshire, Mr. Dawkins makes two striking remarks. There is no case on record of the discovery of bronze celts or swords along with any Roman coins, under conditions that would prove that they were in use at the same time; and that the use of bronze for weapons had been superseded by that of iron before the dawn of history in this country.

1 "Thucydides," lib. vii. 12.
After considering other caves which contained remains similar to those in the upper part of the Victoria Cave, Mr. Dawkins observes that the discovery that caves were used in the fifth and sixth centuries as the habitations of men accustomed to civilised life in Yorkshire, Staffordshire, and Lancashire implies the pressure of a far-reaching calamity, and indicates the social condition of the country, which is revealed by the sacked and burned Brit-Welsh cities and villas.

A question has on several occasions been mooted whether the Britons did not attack and burn the Roman stations and villas when the Roman troops were withdrawn, and it has been remarked that in all cases, or nearly so, these places appear to have been burnt; and the coins, statues of gods, and other things show that at the time they were in the possession of Romans. And this raises the further questions, whether the cities and villas were not Roman? and whether the inhabitants of the caves may not have been Roman also? In the term Roman, not only actual Romans but those Britons who were identified with them would be included.

The fourth chapter of this work begins with an admirable description of the difference in the measurement of time within and beyond the borders of history. In the historical period not only the succession of events but the intervals between them may be measured by years. But as to the pre-historical periods, there is no proof of the interval between one and another. The calculation must be made by means of physical agents, and it is highly improbable that they should have acted uniformly. A change of climate or of rainfall might produce such effects as wholly to defy any calculation; consequently nothing more than a definite sequence of events, separated one from another by uncertain intervals, can be traced. For the period of time, which extends from the borders of history to the remote age where the geologist descending the stream of time meets the archæologist, the term Pre-historic is adopted.

Next comes an enumeration of the pre-historic animals, and then the three periods, in the first of which, preceding the historical, iron was used for the making of weapons and implements; in the next, bronze was used for these purposes; and in the third, stone. Although this was the course of succession, it is by no means asserted that each of these prevailed throughout Europe at the same time, or that there was an immediate change from one to another. Very few caves have been found that were occupied by man either in the iron or bronze age.

In speaking of the caves of Cesareda, in the valley of the Tagus, Mr. Dawkins says that it is probable that the accumulation of human bones in them was formed by cannibals. The bones were in enormous quantities, but were so scattered that it was impossible to put together one perfect skeleton. The long bones had lost, very generally, their articular ends, and had been fractured longitudinally, and some of them had been cut and scraped. Now this seems to be very insufficient evidence of cannibalism, and we are pleased to find that Professor Busk believes these facts insufficient.2 We once heard that great Judge, Lord Abinger, lay down a rule, which is certainly most reasonable, that you ought never to conclude that anyone has committed a criminal act where the facts are equally consistent with innocence; and we venture to go a step further and to say, that wherever the facts are consistent with two suppositions, no conclusion can reasonably be drawn in favour

2 “International Congress of Pre-historic Archaeology,” Norwich Volume, p. 84.
of either. Now neither in this, nor in any other case have we ever seen anything to negative the supposition that the bones may have been split in order to obtain the marrow in them for some totally different purpose. In a subsequent part of the work there is a very strong justification of these remarks. In the cave of Chauvaux, in Belgium, there were found a vast number of broken human bones mixed with those of wild and domestic animals, and the human bones belonged to infants and adults; and Dr. Spring inferred that human beings, as well as animals, had formed the food of the cave-dwellers. But M. Dupont holds that the proportion of young individuals is not greater here than in other caves in Belgium, and that there is nothing to show that this was not used as a place of burial; and that similar mixtures of remains have been found in Wales and at Gibraltar. And recent researches leave no doubt that this explanation is correct. In a still later part of the work, however, Mr. Dawkins states that the remains found in the Grotta dei Colombi, in the island of Palmaria, offer unmistakable proof that the inhabitants of the cave were cannibals. Now these remains contained thigh bones scorched by fire, one of which bears incisions on its posterior face made by a flint instrument in cutting away the flesh, and is also marked by scraping; and Professor Capellini considered that they belonged to an ape, but Mr. Dawkins, from a comparison with femora from children at Cefn and Perthi-Chwaren, decides that they are the femora of children. It may be perfectly true that they are the bones of children; but the facts by no means warrant the conclusion that there was cannibalism in this case.

Mr. Dawkins admits that there is no proof that cannibalism was universally practised at any stage in the history of man, and that all the caves of Europe explored, up to the present time, merely afford some three or four examples in the neolithic and bronze ages, whilst in the pleistocene there is no instance which is devoid of doubt. Now if there is one thing that is more clearly demonstrated than another in this work, it is that the same habits and practices prevailed throughout the same peoples, and the innumerable instances in which there is nothing that can be tortured into the semblance of any evidence of cannibalism, afford cogent proof that it did not exist, and that the facts that are supposed to prove it are referable to some other cause in the singularly few instances where they occur. Mr. Dawkins refers to classical authors as giving countenance to the supposition that cannibalism existed near to the Mediterranean. Some time ago we examined as carefully as we were able all the passages upon the subject in ancient authors, and the result was a very decided conviction that there is not any trustworthy authority in favour of such a practice.

It is true that a passage in Jerome's work against Jovinian [Lib. ii. c. 6], appears to assert that he had seen cannibalism with his own eyes; but it is perfectly certain that the passage is altogether corrupt, and that what Jerome really wrote related to certain people (and the MSS. vary so much that it is uncertain who they were) who used certain parts of the cattle they found in the woods for their food, which they considered as delicacies. This is not only our opinion, but also that of the late Rev.

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Edward Greswell, than whom no more competent judge in such a matter ever existed.

Chapter V. is devoted to the consideration of caves of the Neolithic age, and the remarkable caves at Perith-Chwaren, in Denbighshire, are first dealt with, and then the caves near St. Asaph, as well as a chambered tomb, and the conclusion is that they all belonged to the same race of men; and the difficulty, which arises from the rarity of the remains of animals in the chambered tomb, is well explained on the ground that the caves were used as dwellings. An extremely interesting description of the human remains in these caves by Professor Busk is introduced, which contains tables of the dimensions of the skulls, thigh bones, and tibiae. The thigh bones varied in length from 16 in. to 18 in., and afforded an average length of about 17 in., corresponding, according to the Professor, to a mean height of the individuals of about 5 ft. 4 in. to 5 ft. 5 in.; the tallest being, perhaps, 5 ft. 6 in., and the shortest 5 ft. 2 in. These dimensions are obtained (by Professor Humphrey's method) from the length of the thigh bone, which is 27.5 of stature taken as 100. Now we entertain very considerable doubts whether this proportion is not erroneous. The thigh and leg bones of Luskin, the Russian giant, are at Madame Tussaud's, and the former is 26 in., and the latter 22 in., and he was 8 ft. 5 in. (101 in.) high. So that his thigh bone is at least an inch shorter than the standard; and if we calculate his height by the standard we have, 27 : 100 : : 26 : 96, and a fraction, which is more than four inches less than his real height. In the museum at Scarborough there is in a glass case a most magnificent skeleton of an ancient Briton, who is supposed to have lived early in the bronze age or the fifth century B.C., which was found at Gristhorpe buried in the butt of an oak tree, which had been hollowed out so as to receive the body. It occurred to us that this skeleton was so well proportioned that it would afford a very fair test of the standard in question. The skeleton is 6 ft. 2 in. long, and on our application Dr. Taylor was so kind as to measure the thigh and leg bones, and the former is 19½ in., and the latter 16¾ in. Now by the standard we obtain 27 : 100 : : 19½ : 71, and a fraction; or nearly three inches less than the skeleton, and probably four or five inches less than the living man. There can, therefore, be little doubt that any calculation by this standard produces a result less than the real height.

The question has frequently been under our consideration, and the conclusions we have drawn may be submitted for further consideration. Four times the length of the thigh bone seems to give too great a height. Thus 26 x 4 = 104, which is three inches more than Luskin's height; and 19½ x 4 = 77, which is three inches more than the Scarborough skeleton, and probably an inch at least more than the living man. Again, if the lengths of the thigh and leg bones are added together, and the total is doubled, the result is less than the real height. Thus 26 + 22 = 48 x 2 = 96 in Luskin, and 19½ + 16¾ = 36⁵⁄₈ x 2 = 71½ in the Scarborough man. But if the difference between 96 and 104 be split, the result is 100; and if the difference between 71½ and 77 be split, the result is 74¼. The former is within an inch of the truth, and the latter cannot be far from it; and it is plain that this method produces a result more nearly accurate than the above standard. Unfortunately it frequently happens that the thigh bone alone is found or is in a state to be used. In the instances given that is the case, as no thigh bone is connected with any leg bone.
The longest thigh bone given is 18 in., and $18 \times 4 = 72$, and if 2 in. be allowed for the excess, the height would be 5 ft. 10 in., instead of 5 ft. 6 in. So much reliance is placed on the small height of these people, and the difference between it and our conclusion is so great, that we have deemed it worth while to say thus much upon the subject.

In the report on enlistment in the *Times* of Feb. 22, 1875, it is stated that the average height of recruits last year was 5 ft. 6½ in., they being 19 years old and upwards; perhaps the age is overstated in some cases, but even in that case it ought to operate as a warning against hastily concluding that the original inhabitants of this island were men of short stature.

It is very unsafe also to draw a general conclusion as to the height of a people from a small number of bones found in a particular locality, and especially when such skeletons as the Scarborough one, and those in the hill at Chelmorton, near Buxton, have been found. At Chelmorton, in a barrow, a long chamber or vault surrounded by stones set on their edges, and covered with other stones, contained four or five skeletons. The bones were uncommonly large, and it was supposed that the men had been at least seven feet high. This barrow and chamber are so exactly like those at Cefn as to leave little doubt that they were the work of the same people and of the same age. And as the neolithic age included the early bronze period, it would include the Scarborough skeleton, which possibly may be of the same age and of the same people. In a cave near Cefn a tooth was found, which has been identified as a human molar of unusual size, and so must the man have been whose tooth it was, according to the adage *ex pede Herculem*. This deposit Mr. Dawkins attributes to the Pleistocene age.

The conclusion is that there should be much more complete evidence on the subject before the stature of these ancient people can be ascertained with any certainty, and that at present the evidence tends to show that they were a taller race than the Eskimos.

Chapter VI. is devoted to the discussion of the range of Neolithic Dolicho-cephali or long skulls, Ortho-cephali or oval skulls, and Brachy-cephali or broad skulls. But it would far exceed our limits to enter into this subject: and a very serious doubt has been raised as to the value of the form of the skull in determining race, because it varies so much at the present time amongst the same people; and, although it is alleged that this is due to our abnormal conditions of life, and to the mixture of races at the present day, which are said not to have seriously affected primeval races, yet we are not fully satisfied that the objection is entirely groundless; for except from the remains themselves there are no means of forming an opinion as to the mixture of such ancient races.

Chapter VII. is devoted to caves of a doubtful age, and no chapter could better illustrate the extreme difficulty of determining with any degree of certainty whether the human remains found in a cave were of the same age as the animal remains in it. Pre-existent strata are disturbed by burials, by the burrowing of foxes and other animals; and thus remains of far distant ages may be brought into contact. The remains at first discovered in a cave may indicate one period, whilst those subsequently found may belong to a much later period. In addition to which it must always be uncertain whether relics which would

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6 Glover’s *Derbyshire,* vol. i., p. 277, citing Pilkington’s *View of Derbyshire.*

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indicate a different date may not have been previously removed, and
whether those found may not be anything rather than a fair specimen of
the animals existing at the time when they were deposited.

Mr. Dawkins remarks that the difference between the contents of one
paleolithic cave and another is probably largely due to the fact that
man could more easily catch some animals than others, as well as to the
preference for one kind of food before another. This ought to operate
as a caution against concluding that the mere absence of the remains of
any animal in a cave proved that it did not exist at the time when the
other remains were deposited.

Chapter VIII. is devoted to the Pleistocene caves of Britain and Ger-
many. No continuity can be established between the paleolithic man
of the pleistocene age and any of the races now living in this quarter of
the world. The length of time which separates them cannot be measured
by any term of years. No domestic animals have been discovered in the
strata of the pleistocene period, and many that existed in that period were
unknown in the pre-historic age. Great changes also had taken place in
the surface of the earth by the excavation of valleys and otherwise.
Numerous instances are given which show that the rivers which now run
along the bottoms of valleys formerly ran at much higher levels, and
that the lower portions of the valleys had been excavated subsequently,
and as similar changes are now very slowly produced the inference arises
that very considerable periods of time must have elapsed to produce
such great changes; and the pleistocene gravels and brick-earth, which
were deposited at various heights during the excavation of the valleys,
show that long ages must have elapsed during their deposit. Amongst
the caves that are noticed in this chapter are Gailenreuth in Germany,
and Kirkdale in England, and we may now add the cave at Windy Knoll,
near Castleton in Derbyshire. It is in the mountain limestone. A fissure
opened into a basin and both were filled with loam, below which was an
ossiferous stalagmitic layer. In this loam the quantity of bones was
prodigious. Some thousands of bones, horns, and more than 500 teeth
were found. The bones were those of bisons, reindeer, bears, wolves,
and smaller animals: some of them broken, others gnawed. The extra-
ordinary quantity of bones found in this and the other caves noticed in
this chapter must strike any one with amazement; but very reasonable
explanations are offered. It is said that wild animals frequent their
drinking places in vast numbers; some get bogged; others fall a prey to
carnivora, which lurk near the streams; many fall into natural pitfalls
and swallow-holes, which are numerous in limestone districts; and in
many instances bones have been carried into the caves by streams of
water. It is very difficult to form an estimate of the vast numbers of
wild animals that existed in these primeval times; but an account of
the buffalo in the sweet grass region 120 miles from the Rocky Mountains
may throw some light upon the subject. The buffalo seem to congregate
and winter there, and their skeletons may be found in every pond; and
in one ravine the skeletons lay five deep in some places, and it is sup-
posed that they had tried to cross the ravine when it was filled with
snow, and perished in the attempt. It is easy to see that a stream of
water might carry the bones along a ravine into any cave into which it
might run, and the large accumulations of bones in the caves might

well be made in the course of ages, of the length of which no idea can be formed.

Many caves also were the dwelling-places of hyænas and bears for ages, and are full of the fragments of the bones of the animals on which they fed, and which they had carried into the caves, as well as of their own.

By one or more of these suppositions, the vast deposits in the caves seem to be well explained.

Chapter IX. is concerned with the inhabitants of the caves of north-western Europe, and the distribution of palæolithic instruments. It deals with the caves of France, Belgium, and Switzerland, &c., and the conclusions which are drawn from the facts are that the caves were inhabited by men who hunted, fished, and were clad in skins, and knew the use of fire, but did not possess the dog, or any other domestic animal; and there is no proof that they were acquainted with the potter’s art, which seems to have been unknown in the palæolithic age.

The most remarkable remains of man’s work in the pleistocene period, are sculptured reindeer antlers, and figures engraved on schist or ivory. A well-defined outline of an ox stands out boldly from one piece of antler. A second is a reindeer kneeling in an easy attitude with its head thrown up in the air, so that the antlers rest on the shoulders, and the back forms an even surface for a handle, but too small for an ordinary European hand. On others there are figures of horses, reindeer, and other animals. The most curious is the figure of a mammoth engraved on a fragment of its own tusk, with a long mane and peculiar curvature of the tusk, which do not exist in any living elephant, but which the frozen carcasses in Siberia show to have formerly existed.

Mr. Dawkins doubts whether Mr. Evans is right in considering the palæolithic cave-dwellers to be the same race of men as those whose rude implements are found in the river gravels in England and France, as a marked difference exists between those found in the caves and those found in river strata, although some forms are common to both, and he thinks it safer to consider the races to be distinct from each other. The classifications, also, which have been made of palæolithic caves, according to the remains of the animals, and the various types of implements found in them, are considered to be unsatisfactory.

The question is then fully considered whether these cave-dwellers can be identified with any existing people, and the conclusion is that the Eskimos of North America are connected by blood with the palæolithic cave-dwellers of Europe. The implements found in Belgium, France, and Britain, differ scarcely more from those now used in West Georgia, than the latter do from those in use in Greenland. If a whole set of rude implements, fitted for various uses, and some of them rising above the common wants of savage life, agree, it is said the argument as to race is of great value. No two savage tribes now living use the same set of implements, without being connected by blood, which is said to be an answer to the objection that savage tribes living under similar conditions would invent similar implements. And the conclusion is said to be strengthened by the similarity of the animals found in the caves to those which afford food to the Eskimos now. It may well, however, be doubted whether this latter ground affords any confirmation, for the whole that it amounts to is, that the same wild animals that formerly
A very serious difficulty does not appear to have been considered. If the conclusions as to the distance of time, at which the palæolithic men lived in Europe, be anything near the truth, thousands of years must have elapsed between their extinction in Europe and the present time, and it seems very difficult to conceive that during those countless ages the same race of men has continued in the same identical state of barbarism.

A very complete list is then given by Mr. Dawkins of the principal mammalia inhabiting Britain, France, and Germany, during the pleistocene age, from which it appears that the fauna of the region to the north of the Alps and Pyrenees was remarkably uniform, and that the same fauna is present both in the caves and the river deposits of Britain and the Continent.

Mr. Dawkins infers from the identity of the British pleistocene fauna with that of the Continent, that in the pleistocene age Britain was connected by land with the Continent, and he suggests that this might have been the case if a comparatively small area of land now covered by the sea had then been above the ocean, and he adduces the discovery of a fresh-water mussel-shell in the bottom of the English Channel, and the vast quantities of the bones of the mammoth, horse, hyæna, and other animals, dredged up in the German Ocean, and off Yarmouth, as well as the remains of ancient forests exposed at low water on the Norfolk, Suffolk, and Sussex shores, as evidence that the land where these existed has been submerged, and that Britain stood at a higher level in the pleistocene age than at the present day.

Mr. Dawkins also thinks that the distribution of the palæolithic implements in the river gravels in England and on the Continent may, perhaps, be accounted for in the same way, as they are of the same type in northern France, Sussex, Kent, Hampshire, and as far north as the Wash, and were therefore used by the same race of men.

Chapter X. deals with the fauna of the caves of southern Europe, and the evidence as to the coast line of the Mediterranean in the pleistocene age, and Mr. Dawkins infers from the presence of the same mammalia on the north of the Mediterranean as in Africa in pleistocene times, that there then was a connection by land between Africa and Europe.

Chapter XI. deals with the climate in Europe during the pleistocene age as indicated by the remains of animals that existed during that period. The fauna was then remarkable for the mixture of species. Animals now existing in south Africa, northern Asia, and America, and in the severe climate of high mountains, together with those which lived in Europe in the historic age, and some that have wholly disappeared, then existed. The southern group of these animals affords evidence that the climate of those parts that they inhabited was temperate or comparatively hot, whilst the northern group, consisting of animals which are now only met with in the colder regions, implies that the climate in France, Germany, and Britain was severe. Yet the remains of the two groups of animals are so intermixed on the north of the Pyrenees, that both must have existed in those parts during the same period. Mr. Dawkins explains this on the ground that as winter comes on the Arctic species gradually retreat to the south, whilst animals unable to endure
the severity of an Arctic winter pass northwards in the spring, and thus there is a constant swinging to and fro over the same region of the Arctic and the temperate animals, and thus their remains must become intermingled.

Mr. Dawkins holds that there were two periods of extreme cold in Britain. That at the close of the pleistocene period the climate gradually became colder until it reached the severity of northern Europe, and that the land was then probably higher than at present. That a period of depression succeeded, during which the mountains of Wales were submerged to a height of 1,300 feet, and that the land was again elevated above the waters, and a second period of inclement cold set in, but to a less extent than on the former occasion.

Mr. Dawkins also thinks that there were three similar changes of climate upon the continent of Europe.

He also concurs with Mr. Godwin Austen, and Professor Phillips that the pleistocene animals occupied Britain before the first glacial period, and that the characteristic animals again occupied it after the re-elevation of the land at the end of that period, and that animals also inhabited parts of Britain during the second glacial period.

As the climate became colder, the animals that could not endure the cold migrated towards the south, or became extinct, and the progress was regularly southwards whilst the cold increased, and northwards whilst it decreased.

Mr. Dawkins thinks there is sufficient proof that man lived in Germany and Britain after the greatest cold period had passed away, and that it is highly probable that he migrated into Europe along with the pleistocene mammalia.

The first part of the last chapter deals with the classification of pleistocene strata by means of the remains of animals. The climate, which had been temperate in the preceding pleiocene age, gradually passed into the extreme severity of the glacial period at the beginning of the pleistocene age; and this change caused a change in the species of animals, and those adapted to temperate or hot climates gave place to those which were better adapted to the changed climate. There were, no doubt, reversions towards the temperate state, and the groups of animals overlapped, and their remains were intermingled. The passage, therefore, from the pleiocene to the pleistocene fauna was very gradual, and the lines of definition between the two are to a great extent arbitrary. The pleistocene remains are divided into three groups. 1. That in which the pleistocene had begun to disturb the pleiocene mammalia, but had not yet supplanted them. 2. That in which the characteristic deer had disappeared. 3. That in which the true Arctic mammalia were among the chief inhabitants. The third division of mammalia was in possession of the area north of the Alps and Pyrenees in the late pleiocene division.

The middle division of the pleistocene mammalia is then examined, or that from which the characteristic pleiocene deer had vanished, and had been replaced by animals from the temperate zones of northern Asia. Then the fossil mammalia, which inhabited Britain during the early pleistocene period, and before the maximum severity of glacial cold had been reached, are examined.

The relation of the pleistocene fauna to the pleiocene is a question of very great difficulty, because the latter has not been satisfactorily defined.
No remains of man have hitherto been discovered in any part of Europe which can be referred with certainty to a higher antiquity than the pleistocene age. The palaeolithic people that arrived in Europe, with the peculiar fauna of that period, after dwelling here for a great length of time, finally disappeared, leaving (as Mr. Dawkins thinks) behind them as their representatives the Eskimos of North America. "There is no evidence that they were inferior in intellectual capacity to many of the lower races of the present time, or more closely linked to the lower animals. The traces which they have left behind tell us nothing as to the truth or falsehood of the doctrine of evolution; for if it be maintained that the first appearance of man as a man, and not as a man-like brute, is inconsistent with that doctrine, it may be answered that the lapse of time between his appearance in the pleistocene age and the present day, is too small to have produced appreciable physical and intellectual change." But a more unsatisfactory answer could hardly be conceived. If no such change has taken place during the immense number of ages during which man appears to have been on the earth, what possible ground can there be for supposing that any such change can have happened at any previous time, however remote? On the contrary, the proof that man has always been the same from the earliest period, at which he is shown to have existed, is the strongest possible ground for believing that he has always been the same.

The antiquity of the sojourn of man in Europe has alone been investigated, and not the general question of his first appearance on the earth; and the origin of man is not to be sought in Europe, but probably in the tropical regions of Asia. To this there is no clue at present. The higher class of apes existed in the European meiocene and pleiocene periods in forms uniting in some cases the characters of living species, but they do not show any tendency to assume human characters. The study of fossil remains throws as little light as the documents of history on the relation of man to the lower animals. The historian begins with the high civilization of Assyria and Egypt, and can merely guess at the steps by which it was attained. The palaeontologist meets with the remains of man and his implements in the pleistocene strata, and can merely guess at the steps by which he arrived at the state of culture, which is implied by the implements. This passage appears to assume that man has gradually risen from a lower to a higher state of civilisation; but it may well be imagined that, in some cases at least, man has fallen from a higher to a lower state. It was the opinion of persons fully competent to speak on the subject that the ornaments and other articles found in Ashantee plainly indicated that there had been a much higher state of art formerly in that country; and it can hardly be doubted that more civilised races had existed in America before its discovery than were found there at that time.

It has been proved that in ancient times man lived in the same stage of civilisation in India as the palaeolithic man in Europe; and there is the same mixture of extinct with living animals in the valley of the Ganges, while the clays and gravels were being accumulated, as in the pleistocene deposits in Europe, and the fauna may therefore be referred to the pleistocene age.

A palaeolithic flint implement of the ordinary river-bed type has been discovered between Mount Tabor and the Lake of Tiberias; and this strengthens the view that the aborigines of India and Europe, whose
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implements are found in the deposits of rivers, migrated from the same centre, as it bridges over the great space by which they were separated. We may add that flint celts have also been found in the Troad.

In the course of the work Mr. Dawkins deals with the question of the rate at which stalagmite accumulates in a very satisfactory manner. After giving several instances, in which the increase has been measured after certain intervals of time, he says,—“It may fairly be concluded that the thickness of layers of stalagmite cannot be used as an argument in support of the remote age of the strata below. At the rate of a quarter of an inch per annum twenty feet of stalagmite might be formed in 1,000 years.” In Poole’s Cavern, near Buxton, there is a large piece of stalagmite, which has been supposed to be several thousand years old. The man in charge of the place has excavated the floor near the entrance of the cavern, and has found, at the depth of six feet, numerous articles of Roman times; and amongst them Samian ware in fragments, a perfect fibula, and a denarius of Domitian. This discovery strongly tends to reduce the supposed age of the stalagmite.

We have now completed our imperfect review of this very excellent work, and can well recommend its perusal to all who take an interest in the subjects with which it deals.


We notice with great pleasure the appearance of these two handsome volumes, which form an important addition to the archaeology of Scotland. They embrace two MSS. of very considerable interest and value, the “Protocol Book” of the Chapter Clerk of the Diocese from 1499 to 1513, and the “Rental Book” of the estates of the See from 1510 to 1570. The former of these, which contains a record of important documents and transactions relating to the affairs of the City and See of Glasgow, during the earliest part of the sixteenth century, of which no other muniments exist in its archives, is of infinite value, not only to Scottish antiquaries, but to the citizens of Glasgow, while the “Rental Book” is a document absolutely unique in Scotland. It gives a vivid picture of the tenure of land under the church, of the class of persons who lived under its lenient sway, and a pleasing idea of a comfortable and contented body of small cultivators, who will now be in vain sought for in Scotland. The admirable and suggestive preface of the editors, in one of whom we recognise a member of the Archaeological Institute gives an excellent account of the Archbishopric and City at the memorable period of the Scottish Reformation. The work, in short, has been thoroughly well edited, and does great credit to the society which produced it, which deserves to be better known. The Grampian Club, which is now we believe in the sixth year of its existence, was originated to take up the work begun half a century ago by the Bannatyne and Maitland Clubs, two bodies to which is due the merit of having printed the greater portion of the chief chartularies of the religious houses of Scotland. Since then a wide field has been opened by the labours of the Historical
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MSS. Commission, of which the Grampian club has not been slow to take advantage, as the existence of the two MSS. now printed has been only thus made known. We commend the club to the notice of our own members. It now numbers between 300 and 400 on its roll, comprising two-thirds of the Scottish nobility, and many well-known names in Scottish Archaeology. Our own President, Lord Talbot de Malahide, and Mr. G. T. Clark, are on its list, a sufficient guarantee, were one needed, to show that its pursuits are not ephemeral.

ANCIENT DORSET. The Celtic, Roman, Saxon, and Danish Antiquities of the County, including the Early Coinage, illustrated with Plates and Woodcuts. By Charles Warne, F.S.A. Also AN INTRODUCTION TO THE ETHNOLOGY OF DORSET AND OTHER ARCHAEOLOGICAL NOTICES OF THE COUNTY. By Dr. T. William Wake Smart. Printed for the Author and Subscribers only, by D. Sydenham, Bournemouth. Folio. 1872.

The chief value of the work to which attention is here directed, is that while under the title of “Ancient Dorset,” it brings before us, for the first time, in one view, the early antiquities of the county, systematically arranged and well illustrated; it also serves as an admirable guide to the archaeological student in an important department not always subservient to strict rules of demonstration; and in which speculation has hitherto not been sufficiently curbed by careful reflection and comparison. The south-western districts, and Dorsetshire in particular, abound in Celtic or British earthworks, all more or less remarkable. Mr. Warne has devoted the leisure of an active life to their examination and close study; and no one who peruses the result of his long and patient researches can fail to be convinced how conclusively it bears upon the elucidation of similar remains throughout this and other countries. Accumulated facts, such as this volume affords, set forth with plans, diagrams, and views, are of the first practical utility; they are, indeed, indispensable to a correct understanding of the subject treated on. It would not be difficult to cite hundreds of instances of misappropriation of what are obviously British oppida, committed not only by old topographers, but also by writers of the present day, who frequently designate them “Roman Camps”; but a few examples may suffice. Between Bishops Stortford and Sawbridgeworth, upon an eminence overlooking the river Stort is a platform of some thirty acres, enclosed by a deep vallum well preserved, excepting on one side where it has been filled up for agricultural purposes. Salmon and Morant both speak of this fortified eminence, which is called Walbury, as Roman; and having thus termed it they give reasons which are refuted by the simplest arguments. They never calculated the number of troops requisite to defend a fort of thirty acres; neither did they consider that the Romans were not likely to require such a fortress in such a position; that its mode of construction and extent do not accord with their strategic usages; and, moreover, that had it been a Roman camp it must have been a permanent one; and, therefore, evidences of Roman occupation would certainly have been found in the soil; yet not a scrap of any Roman implement or utensil; not a fragment of tile or pottery; not a Roman coin has ever been discovered there. But while in no respect it accords with a Roman camp, in every
requisite it supplies the necessities of a British stronghold, or oppidum, in which a large number of people, cattle, and horses could be sheltered.

Hasted, in his "History of Kent," makes a similar error in giving a Roman origin to the entrenchment at Oldbury, near Ightham, which contains, he states, a space of no less than one hundred and thirty-seven acres. More recently what is called Lingfield Mark Camp, near East Grinstead, has been confidently described as Roman. It is situated upon the most elevated spot of a range of hills between Kent and Surrey, and contains upwards of twenty-six acres, exclusive of the banks and trenches, which may be computed to have occupied eight or nine acres more. Like Walbury and Oldbury, Lingfield Mark Camp is a fine and interesting example of a British oppidum; and from its inacces-
sible situation, even less known, but well worth examination.

The earthworks in Syndale Park, near Faversham, described by Hasted, must also be ascribed to the Britons, notwithstanding the Roman coins asserted to have been found within their circuit. When vestiges of Roman occupation are found upon the site of British en-
trenchments they merely indicate the natural spread of Roman civiliza-
tion. When the Romans for military purposes held possession of a British oppidum, the Roman castrametation is superadded, and usually of more circumscribed dimensions. Hod Hill, in Dorsetshire, which forms one of the most striking and interesting features of Mr. Warne's volume, affords a good example. This hill is of great altitude, and its natural strength is increased by the river Stour, and a small stream on the opposite side; the summit contains full fifty acres; the chief earth-
works are a double rampart with ditches, which vary in strength and proportions according to the nature of the ground. Mr. Warne's experi-
ence enables him to speak decisively as to its date:--"It is one of the latest Celtic or British earthworks in Dorset. This conclusion may be readily tested by comparing it with any of their other military works in the county; for instance, with its neighbour Hamel-Dun, when it will be at once perceived that the latter, from the method of its con-
struction, was fortified, for ages, perhaps, before Hod was crowned with its mighty entrenchments. Indeed, Hod may be rather regarded as a large walled oppidum, for there are proofs that the hill was very thickly populated long before it was converted into a regular camp. A careful examination of the ground both within and without the ramparts, particularly on the north side, will not fail to disclose the sites of ancient dwellings. And it may be observed that some of those sites lay in the course of the entrenchments, and segments of the hut circles still
remaining along their border show where the dwelling-places were cut through in removing the soil for the work. The interior of Hod has its surface strewn with hollows and superficial inequalities for the most part of a circular form. These are the sites, the spots where once stood the dwellings, huts, or houses of the primitive race, who lived on this bare hill-top." The Roman camp was within the entrenchments of the British work, clearly marked and in excellent preservation. It is well to record here its fate, in the face of the conservative tendencies of the present day.

"It is matter of great regret to have now to speak of this Roman work in the past tense, for nothing could be finer than its condition about ten years ago; until then it might be seen in its pristine state, and, making due allowance for the lapse of ages, as perfect as when evacuated by the

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Roman cohorts. Its turf remained undisturbed, the green sward of the area being undulated by parallel ridges, intersected by streets or lines marking the cantonments of the troops in proximity to the pretorium, the situation of which could then be easily identified. Its state was indeed so perfect as to render it a model of Roman castrametation. But the day came when the hand of the destroyer passed over it. With little thanks to its despoiler, we may rejoice that it has not been entirely defaced, and trust that what is left of it may long remain, not only as a monument of the past, but as a memorial of gross vandalism in high places, called forth by the cupidicy of the ignorant, and uncontrolled by a word of seasonable remonstrance that might have averted the threatened destruction."

The objects of Roman antiquity discovered upon and around Hod Hill are of unusual extent and interest. Fortunately they have found a preserver in Mr. Durden of Blandford, who has spared no trouble or expense in collecting and arranging them. They include arms, armour, implements of agriculture and carpentry, personal ornaments, &c., and, what is especially remarkable, all these multifarious articles are in iron, and in this metal are many of the types which were heretofore known only in bronze. The coins are here of especial value in indicating dates. They commence with the rude unlettered silver of the Durotriges, and, with one exception, conclude with Claudius. This exception is a denarius of Trajan. In the immediate district extensive remains of habitations have been found, together with indications of an iron manufactory. Here, again, coins are of importance. Those found in this locality are of the Constantine family, proving the existence of a Romano-British population long after the castra had been abandoned.

By the aid of personal investigation, Mr. Warne has attempted to trace the march of Vespasian when, as general of Claudius, he conquered, according to Suetonius, duas validissimas gentes, over twenty oppida, and the Isle of Wight; and for the first time the course of the successful commander is followed with reason and credibility. Mr. Warne considers he crossed from the Isle of Wight to Swanage Bay, and thence, by Florus-bury and Bin-dun, towards Dunium, the capital of the Durotriges (now known as Maiden Castle), to the fortresses called at the present day Conig's Castle and Pyls-dun. Maiden Castle is, perhaps, the most stupendous oppidum in the kingdom. "It occupies an area of 120 acres; is a long irregular oval, extending 1000 yards from east to west, with a width of 500. The several defences are adapted with much judgment to the parts they are intended to protect. Thus, facing the open plains on the north there are only three tiers of ramparts with intervening ditches, the sides of the hill not allowing space for more; but to meet this contingency they are of the grandest proportions, the vallum measuring not less than 60 ft. from the apex to the base, and so steep that it is impossible to mount them otherwise than by an oblique ascent. On the south there are no fewer than five lines of entrenchments, all works of great labour, yet bearing no comparison with those of the opposite side. A remarkable fact here attracts our attention, namely, that with the exception of the inner vallum, the others are left in an unfinished state; and it is strange that no former observer should have drawn attention to it." The other arrangements of this wonderful example of Celtic engineering, the complex ramparts, the entrances, &c., are minutely
described, and a good ground plan is added, without which it would be impossible to form a fair notion of the structure.

The advocates of a Roman origin for Maiden Castle seem never to have calculated the enormous force requisite for defending a camp of 120 acres; nor the necessity for such a military concentration. Although to some it may seem superfluous, yet Mr. Warne's remarks may be given to induce reflection on this general error before adverted to. "In respect to camps, we know that the Romans placed more confidence in their legions than in the strength of their ramparts; and less in numbers than in discipline. And so very rare are the exceptions to this rule, that a purely Roman camp may be said to be a parallelogram, defended by a single vallum and fosse of inconsiderable strength, seldom more, and in every instance wanting the capaciousness of the Celtic camps. In this view, then, we have no analogy to guide us in the opinion that Maiden Castle was a Roman camp; but, on the other hand, analogy lends the strongest argument against it. The discovery of Roman remains in a Celtic camp is a matter of no uncommon occurrence in Dorset, and cannot be accepted as a proof that the work must be, necessarily, attributed to that people; nor even that it had been occupied by them, though the probability might be in favour of that conclusion; it simply testifies to the fact of Roman intercourse with their Celtic neighbours. It is, moreover, not within the bounds of probability that Vespasian, in his conquest of the Durotriges, would have constructed a camp of such magnitude and defended it with such stupendous and elaborate earthworks. It is manifestly, in accordance with all systems of warfare, a defensive and not an aggressive work; and if it were not constructed during the period of the Roman invasions of this country, it surely would not have been done after that time, when not only this territory but the island itself had submitted to the dominion of the Roman arms, for then there was no internal enemy to dread. For these reasons it is obvious that notwithstanding the interesting discoveries made within the area of the camp, proving it to have been for some time inhabited by a mixed Roman and British population, Maiden Castle was in its origin a Celtic work, and a Celtic work only."

This sound and logical decision applies also to numerous similar works throughout the kingdom, which, under the guidance of Mr. Warne, need no longer be misunderstood.

It is difficult to extract from a thick folio volume of descriptions of works of such peculiar complexity portions conveying a fair notion of its character and value, because all have their interest and specialties. Eggar-Dun may, however, be mentioned. It is one of a chain of fortresses which were connected by a trackway, still in part visible, which include Maiden Castle, Abbot's Bury, Powerstock, Conig's Castle, and Pyls-Dun. It has a triple series of ramparts skilfully adapted, as usual, to meet the natural formation of the hill; and occupies, including the entrenchments, over forty-seven acres. Horsley, like others of the last century, supposed Eggar-Dun to be Roman, and so did Hutchins and his former editors. Conig's Castle, in addition to its interest as a defensive Celtic work, is believed by Mr. Warne to derive its name from having been occupied by the Saxon army under Egbert, when it attacked the Danes at Charmouth, which is within three or four miles of Conig's Castle. Nettlecombe-Toot is remarkable, not only from peculiar con-
struction, but also for the vestiges of ancient occupations abounding in its neighbourhood. These are a circular enclosure; tumuli, like the Kentish Saxon barrows, but as yet unexcavated; a dyke, and Roman remains. The etymology of the word Toot, or Teute, applied to this and other lofty hills in Dorset and elsewhere, closes the graphic and suggestive account of Nettlecombe Camp.

(To be continued.)

Archaeological Intelligence.

The arrangements for the coming Annual Meeting of the Institute at Canterbury are progressing very satisfactorily. Mr. G. T. Clark is President of the Section of "Antiquities;" Mr. Beresford Hope of that of "Architecture;" and the Very Rev. The Dean of Westminster of "History." From each of these Discourses or Addresses are anticipated, and Memoirs upon various subjects of much interest are expected from Mr. Bloxam, Mr. Godfrey Faussett, Archdeacon Harrison, Mr. J. H. Parker, C.B., Canon Robertson, the Rev. H. M. Scarth, Sir G. Scott, Rev. E. Venables, Rev. Mackenzie Walcott, and others. The Excursions will be limited to East Kent, and, according to present arrangements, visits are contemplated to Dover, Richborough and Sandwich, Hythe and its neighbouring objects of interest, Chilham Castle and Chatham. The temporary Museum, for which contributions of objects are solicited, will be formed in the new Library of the Dean and Chapter, under the superintendence of Mr. Godfrey Faussett and Mr. J. Brent. Further information respecting arrangements for the Meeting may be obtained from Mr. Ranking, at 16, New Burlington Street.

By information since supplied, a correction may be made in the report of the very hospitable reception of the Institute, at Richmond, in the course of the Ripon Meeting last year (vol. xxxi. p. 402). On that occasion the toast of "The Royal Archaeological Institute," given by his Worship the Mayor, was coupled with the name of the Marquess of Ripon, President of the Meeting, who responded—Lord Talbot de Malahide acknowledging that of "The House of Lords."

The Rev. W. C. Lukis, M.A., F.S.A., has just published a very valuable pamphlet "On the class of Rude Stone Monuments which are commonly called in England Cromlechs, and in France Dolmens, &c." The author's talent upon such subjects is hereditary, as the first volume of the "Journal" testifies. In it (p. 222) will be found one of the first articles which led the way to a better understanding of these remarkable objects by the father of the present Rector of Wath, who assisted greatly in the investigations then made. Mr. Lukis has also "A Guide for Archaeologists to the Monuments of the Morbihan" ready for printing, of which a French edition will probably appear at the same time.

It is proposed to publish by subscription the Materials collected by Mr. G. A. Carthew, of East Dereham, for many years a member of the Institute, for the "History of the Hundred of Launditch, Norfolk." The work will be issued in three parts, demy 4to, price 25s. Subscribers' names will be received by the Author, at East Dereham; or the Publishers, Messrs. Miller and Leavins, Rampant Horse Street, Norwich.
The Dykes form another grand feature of the ancient remains of Dorset. Warton, in his History of Kiddington, enumerates seven, a number which Mr. Warne proves he adopted from a mistaken notion of the meaning of the term "Seven Ditches," which was in reality merely the local name of the British settlement called by Mr. Warne "Vindogladia Celtica." That this of old was its name he proves by an entry in the parish register of Cranborne of a woman found dead in the snow at "Seven Ditches," and by the fact that it is so called by the peasantry at the present day.

The great Bockley Dyke is the most stupendous of these works. "Emerging from the plantations on Blagdon Furze Hills, it is first perceived with its vallum surmounting the crest of Blagdon Hill; but not until it descends the hill and stretches across Martin Down will the best view of it be obtained, with a just impression of its magnitude and strength, as the eye tracks out its bold serpentine course athwart the verdant expanse, until it is crossed at right angles by the Via Iceniana, which here runs parallel with the turnpike-road, and very near it; a little beyond this it enters into the enclosures of Woodyates Farm, and once entered on cultivated land becomes despoiled of its fine proportions. Some idea of the strength and magnitude of Bockley may be understood from the fact, that it measures 43, and in some places 50 feet from the base of the fosse on the Wiltshire side to the apex of the rampart, and from 24 to 30 feet thence to the level of the ground on the Dorset side. By the rule which applies to all boundary as well as defensive works, ancient and modern, it is certain from the fact of the fosse being on the north side, that it must have been the work of the Durotriges, and equally certain that its purpose was the protection of the country within the Dyke. The length of Bockley Dyke from point to point, viz., from Blagdon Hill to the Fir-tree in Sheep Ley, on West Woodyates Farm, may be about four miles in a direct line; but if measured through its angles and sinuosities, which are very striking features of its construction, its length would be considerably increased." Mr. Warne's opinion on the origin of this mighty rampart is based on sound reasoning; it will be read with interest, and, if we mistake not, be generally concurred with.

The Via Iceniana in its course through Dorset has been, for the first time, fully examined, and Mr. Warne has not only thrown additional light on the station Vindogladia, discovered by Sir R. C. Hoare, but he has restored to the station Ibernio. One had obviously been omitted between Vindogladia and Durnovaria, and Mr. Warne, finding in the list of places given by
the Ravenna chorographer, Ibernio next to Vindogladia, adopts it to fill the vacant place. The last-named station Sir R. C. Hoare placed correctly on Gussage Down; but he failed to distinguish also a British oppidum, which Mr. Warne has identified, and from its proximity called Vindogladia Celtica. It occupies an area of some acres, and was remarkable for a series of ridges and lines which Hoare called “defences.” These Mr. Warne has successfully proved were lines of trackways, which, carefully tracing, he found to be connected with other distant settlements. The course of the Via Iceniana will be followed by the reader with ease and pleasure in the companionship of Mr. Warne, who has explored and studied it throughout the county, a rare advantage, to which must be ascribed the ease, confidence and freshness of the description. The Via itself Mr. Warne describes as “a raised causeway, composed of a stratum of large flints and gravel laid upon the chalk, and varying from 5 to 8 feet in height, and from 25 to 30 or 35 feet in width;” and he remarks that it does not appear obvious why it should have been constructed at great cost and labour upon a dry upland upon a chalk substratum, as between Old Sarum and Blandford. Such is often the case with Roman roads, and the reason may be given in the fact that this elevation would be favourable to traffic in the winter in deep snow.

We shall not be going out of our way if we pause here, and gratefully pay our tribute of respect to a nobleman who has voluntarily identified himself with one of the stations of this iter, the 15th of Antoninus. Silchester represents Calleva, the important castrum, or rather, fortified town, from which the road, so well explored, starts; and Silchester is fortunately the property of the Duke of Wellington, who, ever aware of its historical interest, has instituted researches on a large scale, and his public spirit and liberality have been rewarded in discoveries of the highest interest, notwithstanding as yet no inscriptions have been added to the two found many years ago: fragments only have been excavated, proving that the cause is to be assigned to their wanton destruction. And yet the general absence of lapidary evidence is remarkable. Here is a line of road of double the length of the great Wall, with ten stations upon it, almost devoid of inscriptions. The Wall and its stations covering a limited extent of ground, present us, through Dr. Bruce’s “Lapidarium Septentrionale,” with more than nine hundred. Vindomis, which is placed between Silchester and Winchester, has been satisfactorily located by Sir R. C. Hoare, and a few years since verified by Mr. Lockhart and the Rev. E. Kell. It was a mutatio or mansio for the purposes of a resting-place, or inn on a large scale. Sorbiodunum yet requires investigation. Not a particle of Roman work is to be seen at what is called and visited as Old Sarum; but close by is a fine fragment of a massive Roman wall which indicates the station. This appears to have been hitherto unnoticed except by the writer of these remarks. Ere leaving the subject of the course of the Via Iceniana, we must draw attention to its passing a spot known as Cold Harbour, because in the appendix is a paper on the signification of this term by Dr. Wake Smart, who differs from the usually accepted notion of its indicating a desolate or lonely place, irrespective of connection with Roman sites. While it occurs frequently in localities once inhabited by Roman population, it is also found in places giving no evidence whatever of villas, castra, or Roman roads.
Dr. Wake Smart has also contributed an exhaustive paper on the so-called "Kimeridge Coal-money," which for years baffled the antiquaries, until the late Mr. Sydenham proved that it was merely the refuse of the lathe, after the manufacture of bracelets and other annular ornaments. This paper is a masterly treatment of an interesting subject, instructive as illustrating one of the Romano-British ornamental arts; and also as showing how necessary it is that the archaeologist should be cautious, and slow to start theories, and not allow fancy to beguile him into the regions of the grand and wonderful, away from the humble domain of simple truth. The shale worked into ornaments was manufactured extensively, and, as Dr. Smart shows, was also exported. Kimeridge shale bracelets may be found in museums in France, unrecognized as to their real nature and origin.

To the Saxon period Mr. Warne assigns the remarkable entrenchments surrounding the town of Wareham. But in this division of his laborious work, the Mints occupy the most important part, constituting indeed a new feature in county history. The subject is treated with the greatest care; and it is one requiring experience and peculiar training. Mr. Warne gives a list of all the coins struck in the towns of Dorset which were privileged, so far as at present they are known; and also the collections or cabinets in which they are preserved, enumerating over two hundred varieties. He has also, for the first time, made known the great number of Anglo-Saxon and Anglo-Danish coins in the national collections of the North of Europe, numbering over ten thousand, including those mentioned by Hildebrand, in the Stockholm Museum. The Anglo-Saxon coins minted in Dorset, which are preserved in Mr. Warne's private cabinet, exceed in number those of our national collection; of these, twenty-nine varieties are engraved in illustration.

In connection with the early and the pre-historic remains of Dorset, are many superstitions, traditions, and stories, which form a very attractive part of the volume. The district of Nettlecomb Toot is especially rich in folk-lore. The hill is pointed out as the scene of a contest between two giants, as to which could throw the greatest weight the farthest distance. In the valley beneath is pointed out the result of the trial, in two large boulders; and the grave of the unsuccessful giant is shown close by. Under "Bul-Barrow," the ancient worship or Belus or Baal is referred to, with modern instances, such as the custom in Wales of lighting fires at midsummer on St. John's day, which existed within the memory of man; and which, in Italy, and probably in Ireland, is yet common. Adoration was paid to the *menhirs* or *monoliths*, in connection with the old pagan worship of springs, rivers, trees, and other natural objects. This was one of the superstitions that edicts of councils, bishops, and kings failed to eradicate, for it was part of the religion of ignorance in the lower organisations. Single blocks of stone were often used as *termini* or landmarks, such as the "Hoarstones," frequently mentioned in Saxon charters as boundaries. One of these still stands on the road to Beaminster; and a few years ago there was one at Verwood, in Cranbourne parish. It was known as the "War Stone;" and if any one attempted to remove it, a blackbird perched upon the top to frighten the violators; notwithstanding the stone has been overturned and buried. Among the stones, circles, and monoliths, which within the last few years have been destroyed, was a perforated or "holed" stone
to which was attached a belief that children passed through the aperture with incantations, were at once cured of certain maladies. Of such a belief many instances will be found in the scattered "Folk-lore" of the country. A like faith was placed in passing a child through a cleft sapling ash tree, which was bound up, and as the bark united so was the patient cured. The Cerne Giant cut upon the side of the hill, above Cerne Abbas, has been the subject of various theories, which are disposed of in a reasonable suggestion by Dr. Wake Smart, who considers it the work of the monks of the Benedictine Abbey of Cerne. The same explanation may be given of the giant cut in the chalk hill at Wilmington in Sussex.

The volume is well illustrated with numerous clear outline views of the chief earthworks, with other plates, plans, and diagrams; and is in every respect the most trustworthy that has yet been published, or that probably will ever be published, of the antiquities of Dorsetshire. Like all such works, it will, no doubt, ere very long, become scarce, as the number of copies printed is not large; and as time rolls on, the work must become more and more valuable.
Notices of Archaeological Publications.


To this important work we have already referred; and now we attempt to convey to those who have not yet had access to it some notion of its character and historical value. But as much of the worth of a scheme so extensive depends upon the illustrations and their fidelity in execution, we are necessarily precluded from availing ourselves of their help, in justice to the author; for the introduction of a few would convey no adequate idea of nearly a thousand. In these illustrations Dr. Bruce has shown liberality and love of science unsurpassed. It would have been a precious gift to the student of antiquities and history to have presented his own and his colleagues' readings of these numerous inscriptions: they could have been relied on; and when the time and labour expended in collecting them is considered, the unwearied investigator was not called upon to furnish also facsimiles of the lettered stones themselves. Yet this he has done in the unselfish spirit of an enthusiastic lover of science; not content with adducing evidence by affidavit, he brings forward the witnesses themselves. For doubtful inscriptions facsimiles are indispensable. Often a few letters will change the meaning of entire lines; indeed a single letter, or a ligature uniting two or more letters, may alter opinions formed upon omissions or misconceptions in the reader. Many inscriptions discovered and published in past years receive new light in being submitted to the precision and accuracy required of the teacher in the present day. Moreover, they demand the means of extensive comparison; an acquaintance with continental epigraphy; and this knowledge is only to be obtained by patient and persevering labour; yet no qualification can supersede personal experience, the practical use and application of the eye itself.

As the "Lapidarium" is mainly confined to inscriptions and other stone monuments bearing upon facts connected with the Roman military occupation of the north of Britain, from the reign of Trajan to that of the Constantines, or a little later, the Diplomas in bronze of Trajan and Hadrian are introduced executed in facsimile. These documents are of the first importance, and in several instances have contributed to the reading of lapidary inscriptions. They record the rights of citizenship conferred upon bodies of auxiliary troops quartered in Britain in the reigns of these Emperors; and most of them have been met with in the records of the castra of the north of Britain. It would appear that their

1 See vol. xxxi., p. 420.
quarters were usually permanent. The Asturians were certainly stationed at Cilurnum early in the third century, and probably before; and we find them recorded as being there when the "Notitia" was compiled. The Dacians were located at Amboglanna, at least as early as the reign of Hadrian. We find them recorded by inscriptions found there, at intervals down to the reigns of Postumus and Tetricus; and there also the "Notitia" places them.

The legions in Britain during the greater part of the Roman domination were the second, the sixth, and the twentieth. The ninth and the fourteenth were also in the island in earlier times, and inscriptions are found in which they are mentioned. The ninth was at York, but there are no evidences to indicate that the fourteenth was stationed at Colchester, as has been conjectured. It was a colony for retired veterans; but as what are now Essex, Kent, and Sussex were in a state of quietude and harmonious alliance with the Romans, military occupation was there not needed; and inscriptions prove exactly where danger was apprehended, and where, therefore, the legions were permanently stationed. Called away on all emergencies, they may be traced in the records of their works—building that wonderful stone barrier which shut out the fierce Caledonians from Romanised Britain; creating or repairing stone castra, with their arsenals, barracks, and temples; now in warfare, now forwarding the arts of peace. It was not by the sword alone that the Romans conquered. The legions carried in their ranks engineers, carpenters, sculptors, painters, masons, potters, and artificers of all kinds, expert and accomplished. It would seem that almost every soldier was trained to one or more trades. How else can we account for the perfection of their works in the furthest parts of the most remote provinces? How else explain the uniformity observable? There was as fine masonry in Britain and Gaul—the castra were as strong there as in Italy, and upon the same plan; the villas as elaborate and luxurious; the general scheme and the details seem to have sprung from one and the same architect. We shall look in vain for such training in mediæval armies. And where shall we find evidence, in after times, of the same high scientific knowledge which led the Roman soldiers always to select the most durable stone? For building they did not accept materials solely because they were at hand; if they were not impervious to time and the weather they were rejected. It is to this discernment we owe the preservation of the lapidary inscriptions. Where the hand of man has not intentionally mutilated them, they are often almost as fresh as when the hand of the incisor left them.

The military diplomas of the time of Trajan give, as serving in Britain, eleven cohorts and four alae; that of Hadrian, twenty-one cohorts and six alae. Besides these and the three legions were vexillations, each a thousand strong, of three other legions, brought over by Hadrian. This an inscription found in Italy reveals to us; and Dr. Bruce gives confirmatory evidence in the north of Britain. It is worthy of note that these legions are recorded on the coins of the usurper in Britain, Carausius. Hadrian himself conducted the Britannic expedition, and superintended the building of the mighty wall so long incorrectly assigned to Severus; and a remarkable inscribed altar, found at Castlesteads, with the emphatic words DISCIPLINAÆ AVGVSTI is fully comprehended by the historian's record of the strict discipline he main-
Platorius Nepos and Mænius Agrippa, in high command under him, are among the records of the Wall district. The latter was prefect of the British fleet stationed at Maryport. Hadrian appears to have sailed direct to the Tyne, as may be inferred from the very recent discovery at Newcastle of an altar to Neptune dedicated by the sixth legion.

Passing over the reign of Antoninus Pius, in which the boundary of the empire was extended further north to what is now called the Antonine Wall, we are struck with the large number of inscriptions of the time of Severus and his family. This was to be expected, as there is comparatively copious historical evidence of the expedition of this Emperor to the north of Britain. They occur not so much along the line of the Wall itself, as in the castra, and on the lines of road towards the north, showing great activity in building, in restorations, and votive altars. He appears to have thoroughly repaired the whole of the fortresses damaged either by time or the incursions of the Caledonians; and he erected public edifices of various kinds. Under Caracalla and Severus Alexander there are also records of the erection of works essential to the garrisons. They give a very interesting insight into the vast scale upon which the military establishment in the north of Britain was consolidated, and the provident and effectual means by which it was maintained. In many instances the names of Geta and of Elagabalus have been intentionally erased from inscriptions. Under Severus Alexander and the third Gordian the lapidary memorials continue of much interest: as, for instance, at Netherby, among other buildings was erected a training-house, or basilica, for the exercise of horses; at Aesica a granary was rebuilt; at Lanchester were built basilicas, baths, an arsenal, and officers' quarters. After this period the inscriptions become scarce. Postumus and Tetricus gave their names to the cohort of Dacians at Amboglanna; but nowhere has there been found, excepting coins, any memorial of the ten years' loss of Britain to the Roman empire, and to the reigns of Carausius and Allectus. It is probable they were destroyed, after the recovery of the province, with unsparing severity. Towards the decline of the empire inscriptions become rare; and of the last Emperors they are wanting altogether. One reason for this may probably be assigned with weight, in the fact that, being the latest, they would be the more conspicuous and exposed to the fury of the barbarian invaders, and the exterminating zeal of the early Christians, who were not sufficiently magnanimous or confident in themselves to save the pagan monuments as trophies of spiritual victories.

The auxiliary forces, and the mode in which they were distributed, are revealed by inscriptions to an extent far greater than would be supposed by all who have not given consideration to this valuable class of our ancient national monuments. At the same time, they show how admirable must have been the system of military policy and government which could rapidly transpose conquered enemies into faithful friends, transported into a far distant land with savage neighbours and a climate cold and inhospitable. The Batavi, the Tungri, the Nervii, and others from Germany would probably not change for the worse, but the troops from the south of Gaul and Spain, from Thrace and other sunny lands, must have severely suffered by the rigour of the winters in the north of Britain. Yet their ranks when thinned by...
war or disease must have been quickly recruited, and the long time they occupied their various stations proves the perfect success which resulted from their incorporation into the Roman army. The location of these auxiliaries, as given in the "Notitia," is usually corroborated by inscriptions which not unfrequently assist in determining the names of the stations, as was very recently the case with Maryport or Ellenborough, where not less than seventeen altars were discovered. Of these, sixteen mention the first cohort of Spaniards, which, when the "Notitia" was compiled, was quartered at Axelodunum; and this place, contrary to the opinion of Horsley and others, is without much doubt represented by the modern Maryport. The inscriptions found here give the names of not fewer than thirteen commanders of the station. In the Batasii, of two of the inscriptions, we must recognise the Vetasii of the "Notitia," stationed at a late period on the Littus Saxonicum, at Reculver.

A large number of the inscribed stones given in the "Lapidarium," are of the class called *centurial*. They have their interest, yet are not of the historical importance of the great mass. To these we may direct attention, because they have been lately used as the basis of a very untenable theory, and because they are of themselves worth notice. They have been found along the entire length of the Great Wall, and indicate the amount of work executed by the companies designated by the names of their centurions. As they are often found in duplicate, Dr. Bruce concludes that one was placed at the beginning, the other at the end of each company's work. The number of the cohort to which the century belongs is frequently given, and occasionally that of the legion. Akin to these, as indicating a measurement of ground, are the rarer stones denoting the *pedatura* of particular forces, as *pedatura Vindomorvci. Pediola Brit.* The first of these two may probably denote the allotment labourers drawn from the district of the Vindomora of the first iter of Antoninus; the second shows that of the British Classiarii, or marines, doing service on land.

The sepulchral inscriptions are chiefly interesting when they throw light, as they often do, on personal history. The birth, parentage, and profession of the deceased are in many instances set down, and they disclose family relationships, and the duty of heirs in erecting tombstones, indicative of settled communities. Inscriptions of this class are seldom discovered in, or in close proximity to, the *castra*, and as there is seldom a clue to the cemeteries, they are comparatively rare, and, no doubt, vast numbers yet remain to reward the zeal of intelligent explorers, or probably to be utilised for building purposes by ignorant owners of the ground in which they were protected. Vast has been the destruction of these precious monuments by a long line of generations incapable of understanding them. The term "dark" is well applied to ages in which the monuments and history of the past were disregarded or despised.

A flood of light is thrown upon the mythology of Roman Britain by another class of inscriptions happily very numerous. They include the *Dii Majores*, Jupiter taking the largest share; Fortune; and Victory, whose image at Camulodunum, Tacitus tells us, fell down before the coming disaster to the Romans, and who was so continually represented in sculpture and on coins. Not only do the deities of Rome stand alone;

1 See an instance of one of these inscriptions at Caerleon, figured on p. 330.
but often they are addressed in unison with provincial gods, whom, no doubt, they resembled. Thus, Mars is sometimes associated with Belatucader, sometimes with Cocidius; Apollo with Magon. We have the unknown god Anociticus or Antenociticus, a word we may venture to suppose signifies Apollo as preserver of health and defender from evil. There is Mythras, whose temple was found near Borcovicus; Mogon; the goddess Hammia; Vitiris; and others unknown to the classical scholar. The Genii are conspicuous. Olympus was far away; calamity might be at hand at any moment; so assistant deities attendant on place and person were also invoked. There was the Genius Ala; the Genius Collegii; the Genius Cohortis; the Genius Loci; the Genius Presidii; the Genius Praetorii; and others, especial guardians, near, and ever watchful. The Nymphs, the Syleve or Sylphs, the Parcae, and, once, the Lamiae, are addressed. But among these intermediate divinities the Deae Matres are conspicuous. They are represented in sculpture as three sedent females, with baskets of fruits in their laps. They were the guardians of the fields and woods; of the fruits of the earth, and of the domestic hearth and board. They are occasionally addressed as Matres Tramarines, and as Matres Omnium Gentium, though their worship appears to have been far more prevalent in the north of Europe. In Germany they take the names of places. It would be very desirable to ascertain the actual range of the worship of the Deae Matres. They seem identical with the Matrons in Germany and Italy; but altars to the latter have not yet, it is believed, been found in England, while it is doubtful if this female trinity was popular in Italy as Deae Matres.

The production of a work such as the “Lapidarium Septentrionale,” marks an epoch in the annals of archaeology. Whatever assistance Dr. Bruce may have received, and he acknowledges it, as he can well afford to do, with graceful frankness, the honour is due to him alone; on other grounds, the generous and enlightened friends who have helped him, will possess now and hereafter the grateful esteem of the antiquary and the historian. To the honoured dead is accorded a tribute in sentiments which must be found in all true and just minds. “No one, whatever his country, can forget the men who have endeavoured, with any measure of success, to record and elucidate its annals. Camden, the author of the ‘Britannia,’ may be honestly styled,” as Bishop Nicholson remarked, “the common Sun, whereat our modern writers have all lighted their torches.” Alexander Gordon laboured well; he was the first who struck out, in the ‘Itinerarium Septentrionale,’ the scheme for identifying the stations of the Wall. Horsley was the minister of a Nonconformist congregation in a small provincial town; and he lived at a time when locomotion was difficult; how he was able to grasp the toponography of the whole of Britain, and to produce the ‘Britannia Romana,’ must ever be one of the marvels of literature. His imaginative powers were great, but his sound judgment held them in perfect control. Like other men he sometimes came to an erroneous conclusion; but his great work is still, and always will be, resorted to as a mine of learning and correct information. To Wallis, Stukeley, Hutchinson, Brand, the Messrs. Lysons and others, our grateful thanks are due for the many interesting facts recorded in their pages. Of modern writers upon the ‘Wall’ and its inscriptions, the Rev. John Hodgson, M.A., the historian of Northumberland, occupies the foremost place. He culled from his prede-
cessors that which was most valuable in their writings; from his own stores he added greatly to our information on the subject of the Roman occupation of the north of England, and by being the first systematically to claim for Hadrian the honour of having built the Wall, he received a measure of renown which will not soon die. Hodgson’s last volume, which contains his account of the Wall, was published in 1840. Since that day extensive explorations have been conducted in many parts of the mural region; new facts have been learned, and great additions made to our collections of altars, tablets, and mythological carvings. The science of epigraphy has, too, in the same period, chiefly through the efforts of continental scholars, made great advances. On these accounts it seemed desirable to the Duke of Northumberland and his friends, that a new work should be attempted, embodying all our recent information, and that it should be carefully illustrated. This appeared the more needful, as Hodgson depends upon common type for the representation of his inscriptions, and, though Horsley gives engravings of the objects he describes, these, for the most part, through the unskilfulness of his draughtsmen, do great injustice to the originals.”

To the liberality of the late Duke of Northumberland is due, in a great measure, the splendid style in which the “Lapidarium” has been illustrated. He also, as the members of the Archaeological Institute well know, accomplished much, through Mr. MacLauchlan’s surveys, for the archaeology of the north of England; and he offered to institute, at his own cost, excavations along the line of the Roman Wall, by means of a committee of practical men to be chosen by the President of the Society of Antiquaries of London. The non-acceptance of this munificent offer did not cool the ardour of the Duke’s zeal for science. He himself instituted researches at Bremenium, and in every way encouraged with free heart and hand the explorers of the antiquities of his county. In the late Mr. Albert Way, His Grace had a good adviser; and Dr. Bruce pays grateful tribute to his zeal and influence. Of the present Duke, it is sufficient to say that he inherits the taste, the spirit, and the liberality of his predecessor.

Dr. Bruce numbers many friends, and he deserves them. Pre-eminent among them is Mr. John Clayton, of Chesters, in whom, also, many a visitor to the “Wall” has found a generous host, as well as an accomplished antiquary. He has been Dr. Bruce’s constant colleague in much of his mural explorations; and the castra of Cilurnum (in the park at Chesters), Borcovicus, and Procolitia, have, through his zeal and liberality, contributed much and important information to the former work of Dr. Bruce (“The Roman Wall,”) and to the “Lapidarium.” These historical sites are, fortunately, his own property; that is to say, the lands are his freehold; but the valuable monuments they cover he searches for with unflagging energy, and with true love for science communicates freely to the world.

Dr. Bruce has scrupulously rendered justice to his colleagues, friends, and correspondents; it remains for the public to appreciate his labours and give him the full credit he has earned. The “Lapidarium,” important as it is, is only an extension of “The Roman Wall,” the consummation of a life of active and earnest inquiry, made up out of time stolen from incessant and anxious professional avocations, the result of a kind of duplex existence rarely achieved, and only by the most highly gifted
organisations. Had he not possessed the essential qualities for his work, no amount of help and patronage would have availed him: such a man patronises the patrons.

We have referred above to the great fortified posts upon the line of the Roman Wall, now the property of Mr. Clayton, who is still engaged in researches at Procolitia, and some of his most recent discoveries are introduced into an appendix to the "Lapidarium." One may be here given in illustration of remarks we have made on the importance of a single letter, or even a ligature in inscriptions; and how, sometimes, doubt rests upon the best readings:—

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GENIO
HUVSLO
C'TEXAND
ET SVAVIS ?
VEX'COHO
II NERVIOR
VM.
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Professors Hübner and Müllenhoff read it as *Genio hujus loci Texandri et Sunuci Vexillarii cohortis secundae Nerviorum*, signifying that the altar was erected to the Genius of Procolitia by the Texandri and Sunuci serving under a Vexillum of the second cohort of the Nervii. But if we rely on the photograph from which the engraving is taken, the word in the fourth line reads *Suavis* and not *Sunuci*, and Mr. Clayton ascribes the dedication to Texander and Suavis, two standard-bearers of the cohort, an interpretation certainly more in conformity with formulae.

Mr. Clayton has also, in the present year, discovered at Cilurnum a fragment of a sculptured stone. A helmeted male head is all that remains of a figure by the side of which in a shield or label is—

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VIRTVS
AVGG.
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and above, in a longer label and in larger letters—

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SALVIS 'AVGG
FELIX 'ALA 'II 'ASTV.
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The meaning is clearly, as Dr. Bruce observes, "So long as the Emperors are safe, the Second Ala of the Asturians will be happy." The *Augusti* of the two inscriptions were probably Elagabalus and Severus Alexander.
Notices of Archaeological Publications.

HANDBOOK OF LICHFIELD CATHEDRAL. By JOHN HEWITT. Lichfield, Lomax, 1875.

There are guide-books and guide-books; very few indeed good, many indifferent, and still more downright bad. To the first class undoubtedly belong such as Walbran's "Ripon," Nicholson's "St. Alban's," and the unpretending looking little manual by Mr. Hewitt now before us. Indeed, its singularly unattractive cover will, we fear, prevent its meeting with the favourable reception which its excellence undoubtedly deserves; and the local reviewers are probably right in recommending the preparation of an edition whose exterior as well as interior shall entitle it to a place on our library shelves. We would suggest, with this object, its being incorporated with the "Handbook to Lichfield," noticed in vol. xxxi. p. 204 of this "Journal."

Mr. Hewitt possesses many advantages for fulfilling the task he has undertaken. A native of the city to which he is warmly attached, a keen observer, and a versatile and accomplished antiquarian, it would have been impossible for the work to have devolved upon a more congenial workman. His minute acquaintance, for many long years, with the noble structure which he describes, of which the present number of the "Journal" presents another example, his familiarity with the literature bearing directly and indirectly on his subject, and his advantage in possessing personal friends connected with the restorations of the cathedral who were both able and willing to add to Mr. Hewitt's own stores of information, have all contributed to place him in a position of which he has taken full advantage. The numerous authorities, especially the late Professor Willis, are all clearly referred to, and Mr. Hewitt's own suggestions, frequent and shrewd, combine in making up an unusually good handbook. We could, however, have wished that he had offered at least some attempt at explaining, amongst other difficulties, about Lichfield Cathedral, the so-called "Monk's Larder," and the original uses of the present library and its adjacent apartment. In another edition, moreover, we would recommend that attention should be directed to the singular chronological parallelism in the gradual progress of Lichfield Cathedral with that of York, to which Professor Willis adverted at p. 20, vol. xviii. of this "Journal;" and it would be also interesting if the remarkable polygonal apse at Lichfield, unique in England, were compared with continental examples of this form.

The variety as well as the details of the subjects on which our author touches are unusually profuse for a guide-book of no higher pretensions than this. The bells, the glass, the monuments (existing and destroyed), the library (including the far-famed "St. Chad's Gospel," of which we
have reason to know that we shall shortly hear more), the masons' marks, and the other relics, are all clearly arranged and fully described; and of Bishop Hugh de Patteshull’s effigy an engraving is given, here reproduced.

Some interesting remarks are also offered on the varied orientation of different parts of the structure, and this valuable little work closes with an account of the late restorations by Sir Gilbert Scott—an annotated list of the Bishops—and some curious observations on the Bishop’s Prison. The points which are suggested above for reconsideration are noted with the conviction that these handbooks of Lichfield and its Cathedral are destined to assume a more permanent form.

W. H. T.