ANCIENT EARTH-WORKS IN BRITAIN.

By Capt. C. Cooper King, F.G.S.

Read before the Society, April 14th, 1880.

A GLANCE at the map of any of the more important Counties in the South of England will shew, arranged in apparent disorder, numerous camps and fortresses with traces of ancient occupation either in or near them. Popular tradition has given to many of them the name of Cæsar. Few districts in Hampshire, Berkshire, or Wilts but have their so-called "Roman" or "Cæsar's" camps; while there is no evidence, either historical or otherwise, to prove that the legionaries of the great captain had anything to do with their erection. The distinct mark made by the old conquerors on every country they occupied, the prominence given to all they did, and the traces they left, which were so much more evident and lasting than those of other warlike invaders who preceded and followed them, were probably the causes that led the provincial mind to ascribe all unknown fortresses to the people who had so unmistakeably proved their military superiority. In the same way, in the Eastern Counties, the Danes were best known and most feared, and the impress of this sentiment of fear is left in the application of "Danish Camp" to earth-works whose origin is unknown.

Later on, early Mediæval ignorance and Monkish superstition lent their aid to unravel the meaning of these vast erections, the work of human hands. As Aubrey, writing in 1663, says, "Books perished and tradition was forgot, the conquerors, being no searchers into matters of antiquity, ascribed works great and strange to the devil or some giant." Hence old entrenchments and tribal boundaries received the name of "Devil's Dyke," "Grim's Ditch," and so on.

But the more closely these places are studied, the more it will be seen that by far the vast majority have little claim to be called either Danish or Roman, and, of course, still less to have a supernatural origin assigned to them. Even their arrangement and order can be traced to other causes than the retention and successive fortification of locally valuable strategical points, as the successive waves of invasion swept inwards from the sea.

Probably the Danish raids, based as they were on naval operations and on river transport, were rarely attended with such protective measures as massive earth-works, except at the very bases of departure, on the coast line or the rivers, where their boats and galleys were moored. Early Danish naval operations were not undertaken for the

permanent occupation of large inland territories, but were, rather, hasty inroads, for the purpose of plunder, from the greater estuaries and inlets. When the district had been ravaged, the old sea kings returned homeward to the lands whence they came. This at least is the probable history of most of their descents on English soil.

Nor is it likely that the disciplined legions thought it necessary, superior as they were in arms and equipment, let alone tactical skill, to construct, as a rule, earth-works of such vast extent and magnitude as often bear their name. On their march from day to day, time would be wanting to make such parapets and ditches as those which enclose many prominent hill tops and bold spurs. The amount of soil that can be excavated and thrown up, by an ordinary skilled workman, can be easily measured; and is only variable as the nature of the material—whether hard, soft, or rocky—varies. Irrespective of shape, the Roman camp, when intended for temporary purposes, must have been neither extensive in size nor massive in form.

It takes a skilled sapper some eight hours to construct a parapet eight feet high and ten feet thick, and these dimensions sink into insignificance before the ditches and mounds of many camps that, falsely, as will be seen, are called Roman. Such camps must have been the result of long and continuous labour, which the Romans would scarcely care to undergo; and inasmuch as the tactics of the legionaries were essentially of an "offensive" character, it would have been unnecessary and needlessly fatiguing to erect such protections as would be required only for a purely defensive rôle. Cæsar's "Castra ponit," which terminates many of his chapters, may have meant a slight earth-work defence; but it may have meant little more, on the other hand, than pitching a camp and posting the ordinary sentries on outpost duty. It does not necessarily involve an earth-work redoubt. But assuming, for the moment, that a skilled and well-armed adversary, operating against semi-nude barbarians, chose, from habits of discipline and custom, to erect such protections against sudden attack, it would be but natural that they should be reduced to their minimum of extent so as to avoid needless labour. All fighting with missile weapons of short range, or hand to hand, involves the formation of as serried a line as possible. Line formations have always been recognized as the best, when the morale of the troops is good, against all but breech-loading rifle fire. The well organized legion encamped in almost order of battle, and the extent of ground it covered was small, and its formation regular.

"The military discipline of the Romans," wrote Mr. Savage in 1832, "with the regular payment and subsistence of their troops, enabled them to form camps for the purpose of occasional protection wherever they moved; but the policy of the Britons had not at that time assumed a form so regular; their warfare was tumultuary, their campaign of short duration; they had not yet learned to fortify the place where their army was to make but a temporary stay." Sir Richard Colt-Hoare also corroborates this view, that the Roman

camp was small, more regular, and rarely of such dimensions as characterize the vast earth-works that dot the hill-land of the Southern Counties. Writing in the Archæologia, he says, "The Romans depended on the strength of their legions, and their superior skill in war, not on those huge and extensive ramparts which so frequently accompany the encampments on our hills. Within the extensive area of Hamden Hill, we may observe a very small space occupied by the Romans; and another example occurs in a fine camp on Hod Hill, near Blandford, where one corner only of the area has been occupied by the Romans. There is also at Clifton, near Bristol, the vestige of a small Roman work within the more ancient one of the Britons, and other examples might be adduced within our Island."

It does not follow, therefore, that the presence of Roman remains, even in a large earth-work, entitles it to be ascribed to Roman construction. Doubtless, it had been occupied by them for a greater or lesser period, as such strongholds would naturally be after their capture. Moreover, the sites of the great camps are, as a rule, singularly well chosen. The warriors of old time were distinguished, evidently, for that keen eye for ground, for that appreciation of the value of defensive positions, and for the selection of the right place for a fortress, which has characterized the great soldiers of all time and of all nationalities. The best strategical positions having been already seized, it became incumbent on the legionaries to retain possession of the same points. Thence the neighbourhood could be overawed until more peaceful times had come, and the permanent towns, which were to be the local centres of civilization, could be built in more convenient sites for trade, for commerce, or for water.

There is also considerable difference, both in shape and in extent, between the Roman camps and those formed by either the Saxons or the Danes. The military arrangements and organization of the latter were less perfect than those of their great forerunners. The Roman camp seems to have depended on the tactical formation of the legion, a regimental (or rather brigade) system which did not obtain with the irregular hordes of the later invaders of England. One of the most ancient Saxon camps which can be traced by historical record is one that bears the name of "Castle Bavoid," near Sittingbourne, in Kent. It is ascribed to Alfred, and is of an irregular *oval* trace, the largest diameter being about 80 yards and its shortest about 70 yards. The ditch outside is about 60 feet wide. Near the same place is the camp of Hastings the Dane, locally called "Castle Ruff." This is a long square, with the corners a little rounded off; its length being about 100 yards only, and its breadth about 80, with an external ditch of about 23 yards wide. So that though there is some similarity between the earth-works of the later and earlier invaders, there is still sufficient variation for the antiquary to determine the date of their construction.

But other earthworks shew very different handiwork. A multiplicity of ditches is common with the greater and more important camps, and their shape is generally much more irregular and their

area considerably larger. Whatever their date may be, some suggestive information can be gathered from those ancient writers who described the military operations of old time. Cæsar, in describing the capital of Cassivelaunus, says that "the Britons call it a town when they have fortified any woods difficult of access with a vallum and a fosse, where it is their practice to take refuge in order to avoid the assault of their enemies." And again, when he attacked them in his second invasion, he goes on to state that "they retired into the woods, and took possession of a place excellently fortified by art and nature which they had provided before, apparently for the purpose of domestic war." Strabo also, in his Geography, describes their defensive system as being the selection of fastnesses where "the woods were their towns; for, having fenced round a wide circular (irregular) space with trees hewn down, they there place their huts and fix stalls for their cattle, but not for long duration." And lastly, Tacitus, describing the stronghold of Caractacus, points out that "they there fortified themselves on steep mountains; and wherever there was a possibility of access in any part, he constructed a great bank of stones like a vallum."

But it is perhaps premature to fix the name of "town" to these great earth-works. Even if they retain still abundant traces of pit-dwellings, it does not in the least follow that they were permanently occupied. The greatest reason against such a view is the scantiness of the water-supply. Situated on lofty isolated hills or bold spurs, spots chosen because of their centrality with reference to the villages of the tribe or clan, or of their defensibility, or because they had great command of observation over the neighbouring land, they were rarely likely to possess much water. Deep wells were out of the question for want of mechanical appliances, tools, and skill. Shallow wells, dug a few feet down to the nearest impervious or semi-impervious stratum, would only afford the small quantity that the rain-fall, over a very limited area, would furnish. "Dew ponds" or shallow pools which merely collected rain-water are commonest; definite wells are rare.

Now consider the number of people such a space as these camps enclose could hold, bearing in mind that the rampart must be continuously defended by a serried line of men, in single rank, at the very least; as, otherwise, it would be penetrated by the assailants wherever it was not so held. Bear in mind also the number of women and children, and of beasts and cattle. All these require water, and that with no stinted hand. However full the ponds, in dry weather they would soon suffer loss from evaporation alone; and it must have been during dry weather (when the low land of morass and bog was somewhat more passable than usual) that hostile raids were most likely to occur. Their position points to temporary habitation only; though possibly the chief himself and his family might have lived there, and exercised watch and ward over his people.

It therefore follows that, to ascribe works, other than those of comparatively limited extent and regular trace, to either Roman,

Saxon, or Dane, is very decidedly open to question. But there is another point which may furnish data for reasoning,—namely, the nature of the tools in use at various times. The oldest camps, which may well be called British, must have been constructed with inferior tools. Thus the simplest and weakest camps (which have no relics of after occupation) will be found to contain stone implements only. Flint axes, celts of polished stone, arrow and lance heads of delicately chipped flint, were the weapons of the warrior; and his domestic implements, of inferior workmanship, were poorer still. Pointed sticks and deer's horns to dig with, flat stones, split wood, blade-bones of domestic animals, wicker baskets, or the skins of beasts were his only means of moving and piling up the loosened earth. Huge ditches and valla can hardly be the work of tools like these. Later on bronze and then iron came into use; and with these came greater knowledge and higher scientific skill.

To sum up, therefore, it may be assumed that—

(I.) *The oldest camps* should be simplest in trace, with the weakest rampart and the smallest command, because the tools were stone.

(II.) *The more complicated camps* should belong to a period when bronze or iron, together with a higher civilization, came in.

(III.) *Those of a regular trace* should belong to the higher military organization of the Roman, or in a less degree to the Saxon or Dane.

It is into these three groups that it will be convenient now to divide the subject. But before examining a case in each group in detail, it will be well to examine briefly the general nature of ditch and rampart defences.

In all probability the parapet itself in these old works was crowned with stakes and wattle; a sufficient protection against missiles such as stones and stone-pointed darts. Fig. 5 is a sketch, after Violet le Duc, on the subject; but here he suggests the building up of the parapet with tree trunks, which does not hold good in England. Fig. 1 shews a simple earth-mound in soft soil, where the ditch can easily be made a sufficient obstacle. In many cases on the chalk downs, there are underneath the, now low, mound of earth, holes in the chalk at nearly regular intervals, which would seem to indicate that, in hard soil, stakes or palisades had been planted first, and then the earth piled against them; in these, and other cases too, the internal platform has been increased by the introduction of stones, over which the earth was placed.—Fig. 2.

In many cases there are two or three parapets with two or three ditches; but these are generally on the steep slopes, and seem to have been made—not to afford two lines of defence, one of which would certainly have obscured the other, but to provide more of the easily raised surface earth for the rampart, and at the same time increase the depth of the main ditch.—Fig. 3. On the steepest slopes no attempt at a ditch has been made, but the slope is scarped or cut down, so as to make climbing most difficult and oppose a sufficient obstacle to an assault.—Fig. 4. Reference will be made later on,

Fig. 8.

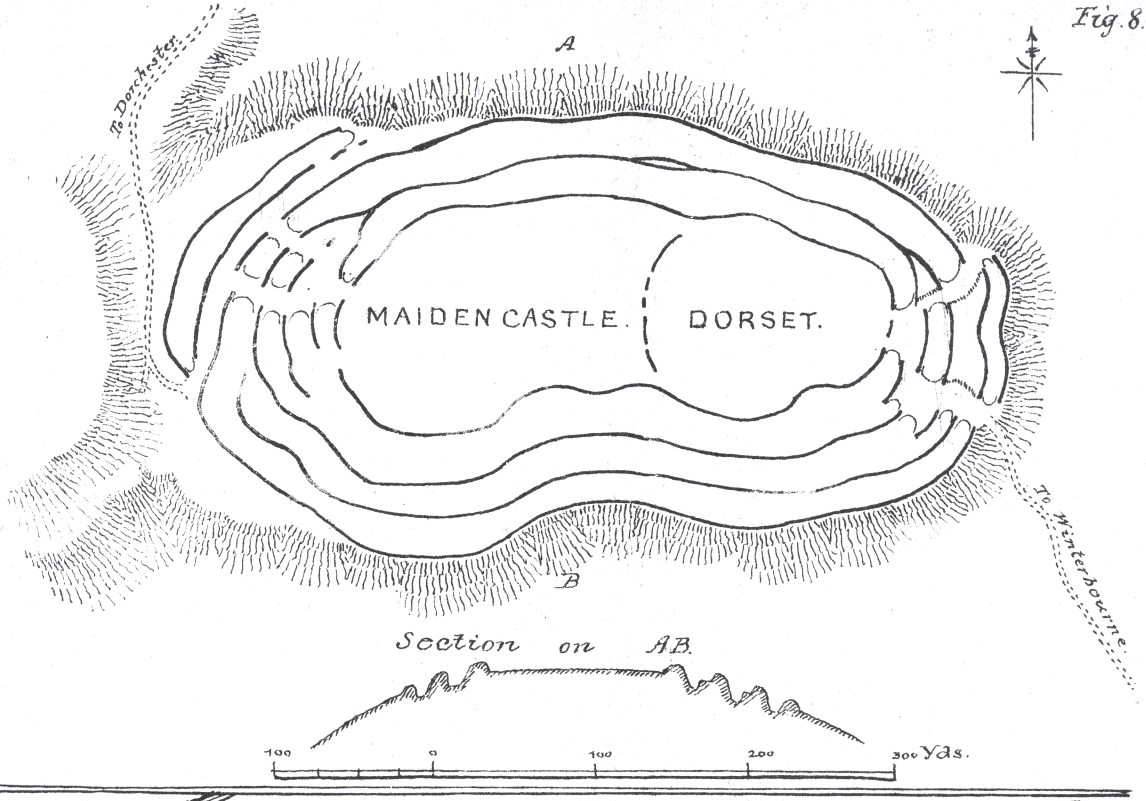

A
To Dorchester.
MAIDEN CASTLE.
DORSET.
To Winterbourne.
B
Section on AB.
100
0
100
200
300 Yds.

Fig 9.

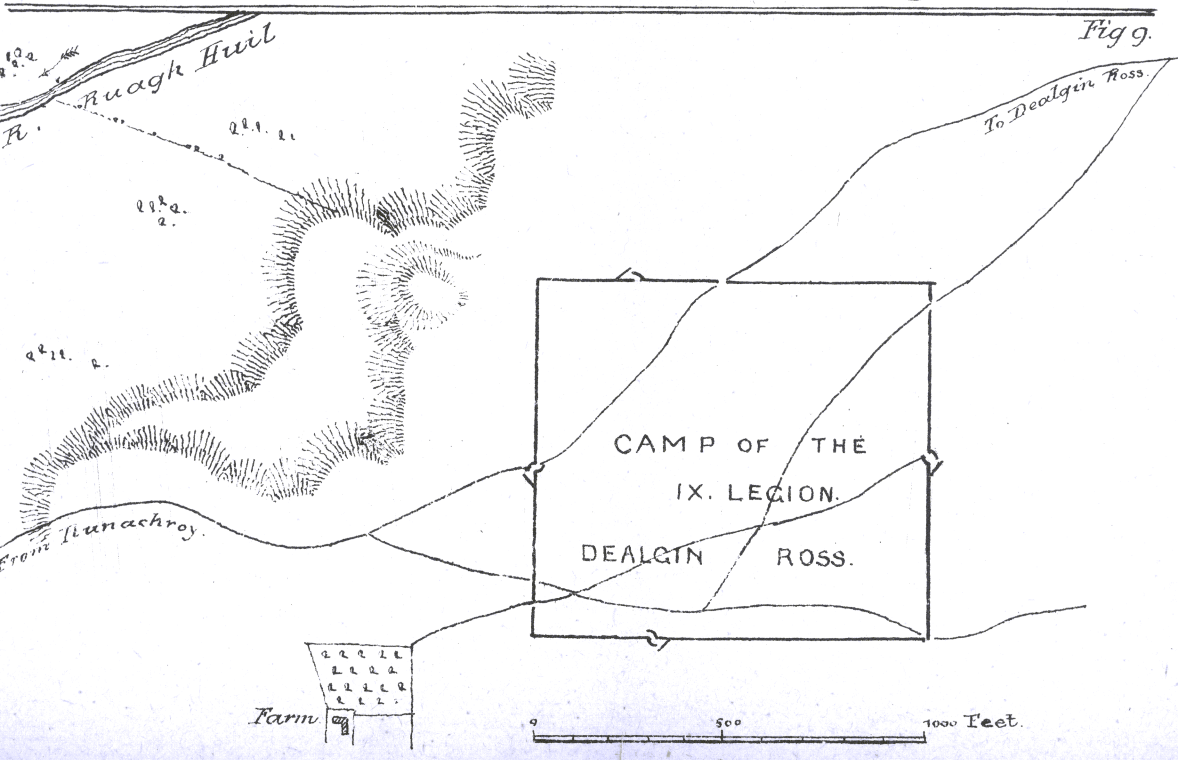
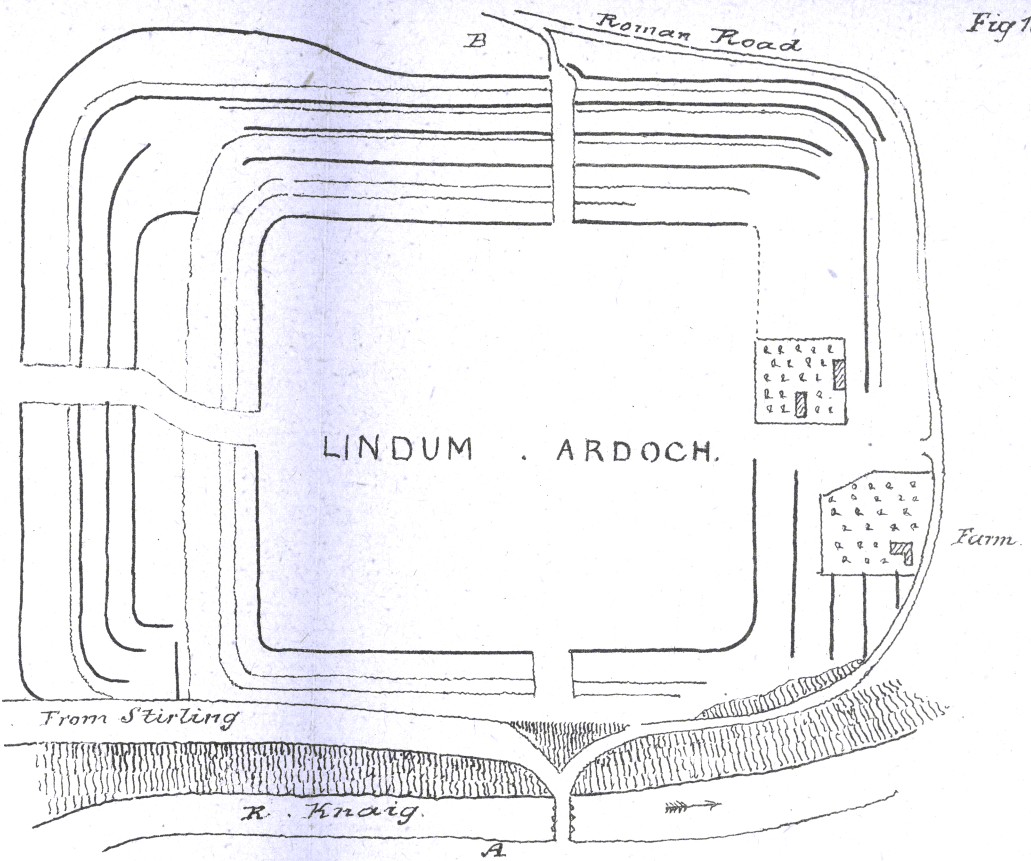

Ruagh Hill
To Dealgin Ross.
CAMP OF THE
IX. LEGION.
DEALGIN ROSS.
From Tunachroy.
Farm
0
500
1000 Feet.

Fig 10.

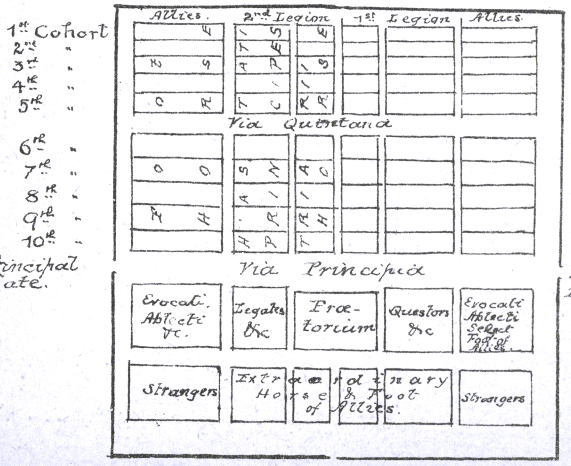


Section on AB.

ROMAN CAMP
With Allies.

Section of Rampart.

Prætorian or Quæstorian Gate Fig 11.



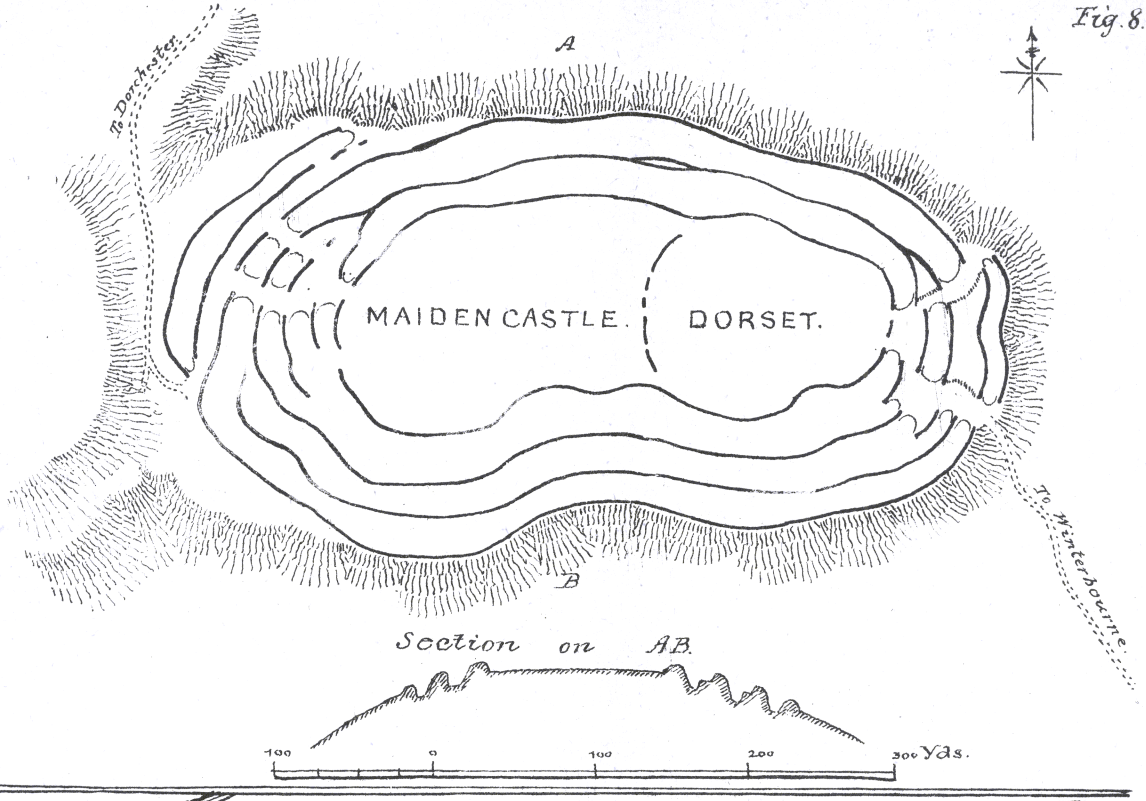
Left Principal Gate.

Right Principal Gate.

Decuman or Extraordinary Gate.

Cooper Kins.

Fig. 8.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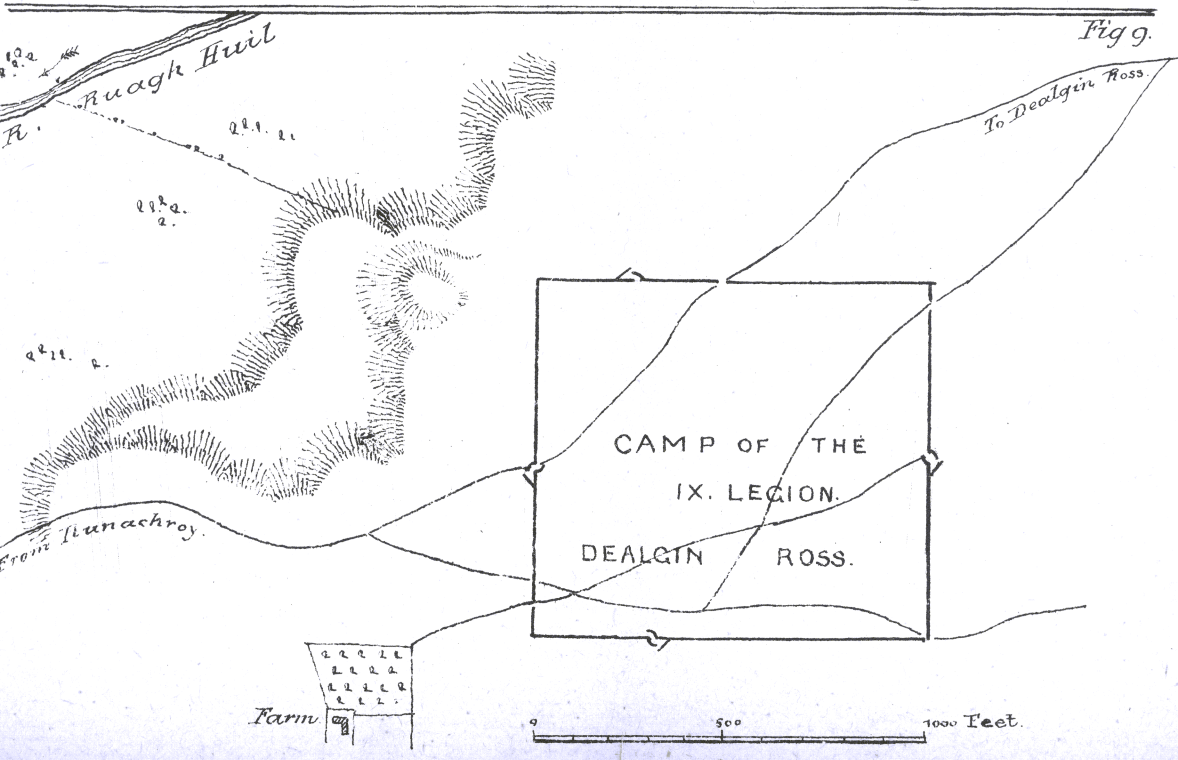
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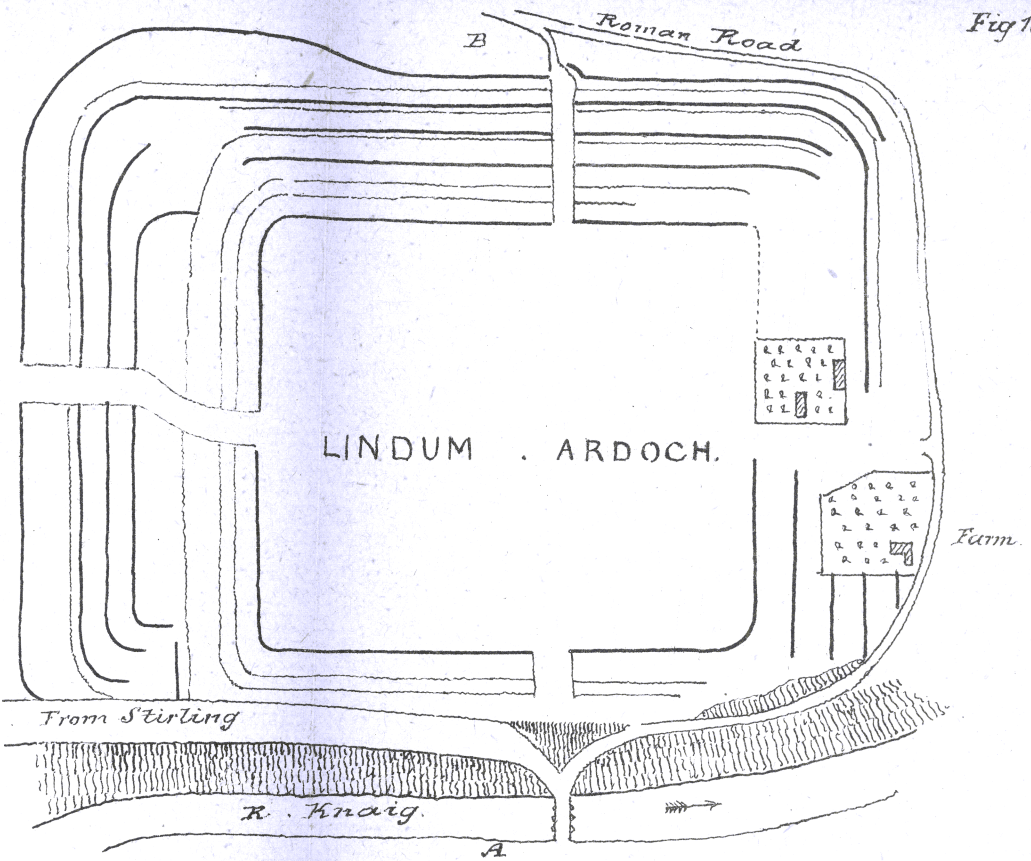

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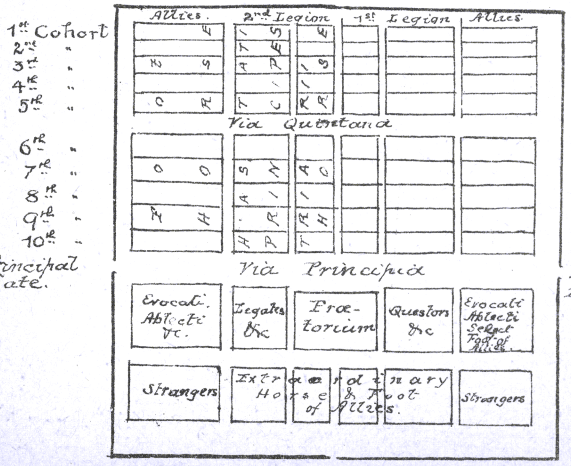

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again, to this question of the so-called double and triple valla; but leaving it for the present, turn to the first of the three groups of works mentioned, namely, those with simple parapet and ditch, associated with stone implements.

I(a). *Simple camps of small size,—British.*

These are numerous enough, and very variable in their dimensions. Some seem to have been merely the defensive village cattle-pen against local marauders. *Knook Castle*, near Heytesbury, is an example of this kind. It is but 180 yards long by 100 yards wide, and is seen into from the neighbouring hill-land. The traces of old division lines, the circular marks on the downs where the huts were, the blacker earth and richer vegetation, as compared with the neighbouring land, and lastly, the presence of rude pottery and rough tools, all point to ancient occupation. Roman relics there only prove that it existed up to the Roman era, and that probably the inhabitants "looted" when they had a chance. Close to the old village is the kraal, in which the wealth of the village was kept safe from harm at night.

It must be definitely borne in mind that the early Briton was but an agricultural, pastoral, or hunting nomad. He lived on high land because it was dry land, where there was pasture for his cattle. His villages were rude collections of half-buried huts, marked now by irregular shallow hollows and rich black soil. The hill slopes, wooded, wet, and entangled, offered few attractions for him. His rude track-ways from village to village have, at fords and elsewhere, been marked by the halting-places where his flint-chips and stone tools can be found now. "On the tramp" he re-pointed his axes and his arrow heads, and in so doing broke or mutilated some of them and flung them aside there. Worthless to him, they are valuable to the archæologist, as shewing how rude his life was.

I(b). *Simple camps of large size,—also British.*

But there is another class of earth-work, in this group, of a more extensive nature. If the former be the work of the village for *local* defence, this must have been the work of the clan for *general* defence. For the British organization was chiefly tribal. When the fire beacon gave intelligence of the enemy's advance, then the group of families assembled under the tribal chief. There is no evidence whatever of higher military organization as the Romans knew it.

The vast extent of these works points to numbers of warriors to man them, and numbers of helpless people and flocks to fill its area. Such a work is weak everywhere unless every foot of its rampart be guarded by a man, for the enemy might attack anywhere, and when he did there would be scant time for changing the position of the groups of defenders.

Such works are surrounded, for an area of some miles sometimes, by traces of ancient occupation or by village names. For example, Yarnbury [*yarn* or *garn*, a heap of stones, and *beorg*, a hill] camp, near Lavington, in Wilts, though altered possibly and improved since its first formation, has round it Orcheston [*orceard*, a garden]; Shrew-

ton [*scearn*, a division or district]; Maddenton [*mai-dun*, the great hill]; Codford [*coed*, a wood]; Chittern [*chetel*, a name]; Berwick [*ber*, a hedge; *wick*, a village]; Winterbourne [*venta*, winter]; and Elston [*Ella's town*]. In the last four cases the modern villages, situated at the foot of the hill, have traces of the ancient villages on the adjacent spurs. The hill fort lies in an angle between two streams over which the points of passage are marked by ancient names.

Ogbury [*ugga*, a name], some few miles north of Old Sarum, is situated on a bold spur overlooking the valley of the Avon, on which, in the vicinity of the camp, are Wilsford [*wil*, a willow]; Durnford [*deor*, a wild animal]; Netton [*net*, cattle]; Sallerton [*salh*, a willow]; and Upper, Middle, and Lower Woodford. The camp follows the shape of the hill, and has its entrance towards the river. Now what was the object of Ogbury, isolated as it is, with ancient villages near it? Such works seem to be not places of permanent occupation or defence, but rather the high places—the cities of refuge—which were good central positions, suitable for temporary defence against a hostile raid. Such raids must have been short in duration, for the enemy could carry few supplies; and, when the country had been ravaged and its spoil taken, the victorious invaders retreated whence they came. That spoil was poor enough, doubtless. But polished stone implements meant the employment of slave or woman's labour. Either would be gained by such a raid, and, as the Zulu Impis overran their less powerful neighbours to "wash their assegais" and indulge their lust for conquest, so the British chieftain may have led the turbulent spirits of his tribe to glory and to plunder.

Then it was that the hill fortress had its work to do. The chord of human sympathy that lies within us all must throb a little at picturing that crowd of weeping women and anxious men assembled behind the earthen walls of Ogbury, while far around the light of burning fires told the story of ruined homes.

Many of these camps were altered and improved by conquering invaders, and those that were of real strategical importance were so adapted to the newer condition of things. Whether by Gaulish invaders before the Roman time, by the Romans themselves, or by Saxon and Dane afterwards, would always be difficult of proof. But it seems certain that massive hill fortresses were later than simple forms like Ogbury. This, from its character, its workmanship, and its stone relics, may fairly be called British.

II. *Large and massive camps,—of Belgic or Celtic origin.*

The second group is more imposing and complicated than the former, and they frequently seem associated together in a system of defence.

It is most difficult to fix a date to them. All that can be said is, that invaders with better arms came in from the eastward and southward. One of the most important of these immigrations, that of the Belgæ, commenced about 500 years B.C. They were probably in

advance of the British Celts both in arms and civilization. Certain it is they had more fighting power in them, for they were the conquerors.

Passing over from Gessoriacum (Boulogne) and Portus Iccius (Wissan), they seized Kent, Hants, part of Berks, Wilts, Dorset, and Devon, driving before them the early Celts into Wales and Cornwall, or amalgamating them with the Belgic clans.

Some of these great hill fortresses may therefore be ascribed to the Belgic or some other Gaulish invasion. They seem either associated together in order, with the object of defending the lines and roads of advance inland from the southern harbours, or they appear to enclose large areas of fertile land as principalities or counties. In many cases they can be so grouped as to suggest that they formed part of a systematic scheme for the armed occupation of the land hitherto held by the British tribes.

Thus the forts that at intervals dot the line of the possibly Belgic boundary, the Wansdyk, were evidently designed to protect this great earth-work. Rownham and Leigh camps, near Bristol; Maes Knoll, Stantonbury camp, and Bathampton camps, near Bath; Chisbury, near Marlborough; and numerous others, evidently form part of a system of defence against an enemy approaching from the north.

Around Newbury, on the other hand, there seems to be an arrangement of the hill fortresses pointing to the enclosure of the fertile valley of the Kennet. Thus all the ancient winding roads which lead from the north to the points of passage of the Kennet are closed by camps or forts, situated on points that command the old track-ways.*

Again, it is most difficult to be certain whether these complicated camps were not originally British and altered by their conquerors.

Roman holdings, as a rule, are the only ones that admit of an unquestionable decision, for where they lived there they left unmistakeable pottery and coins.

All that is clear is, that, as civilization advanced, and as, in all probability, the successive waves of hostile immigration, bringing with them fiercer and better armed tribes, poured over the land, the camps became more extensive and more formidable. Human labour, that is the actual amount of work a man could do, had neither increased nor lessened. But with bronze weapons came in better tools for work, and with them, therefore, greater power of making artificial fortresses. It is quite likely, too, that these invaders were, until the country was quite subdued, or until the conquerors had become intermingled with the conquered, compelled by force of circumstances to live in the fortresses themselves, and there are certainly traces of such life in many. Large defensible earth-works are more likely to be oppida, or towns, than those of a more simple character. Not that fresh sites were always chosen by the new comers. Many of the larger hill castles are evidently built on the ground occupied by more feeble

* *Vide* Proceedings Newbury Dist. Field Club, Vol. II.

defences; in many cases they actually enclose the latter, and in others the older ramparts are improved and incorporated in the new fortress. Like the simple camps, these more massive ones also follow the contours of the hills.

The mixture of relics in some rare instances goes to prove successive occupation. Stone tools of early types and rude British pottery may be found in the same area with metal weapons and fragments of vessels shewing higher art. In the same way, when the Roman invasion came, the legionaries, too, stormed and occupied these hill fortresses and left behind them fragments of Samian vessels and Roman coins. It does not in the least follow that the finding of Roman coins and pottery therefore indicates that the work was originally of Roman make. It merely means Roman occupation. It would be as wise to say that, because Old Sarum contains Mediæval masonry, it was only of Mediæval origin, as to affirm that a camp containing remains of the Romans was therefore made by them.

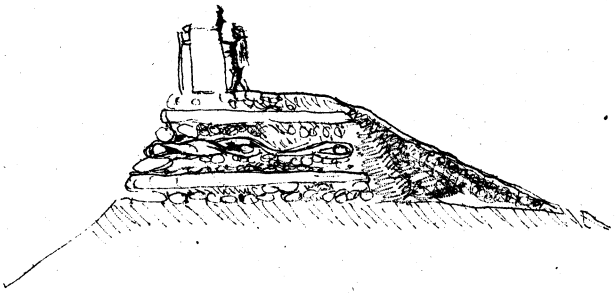
Many of the greater hill fortresses are therefore in their origin probably anterior to the Roman conquest, but they were held and strengthened in some cases by the Roman soldiery.

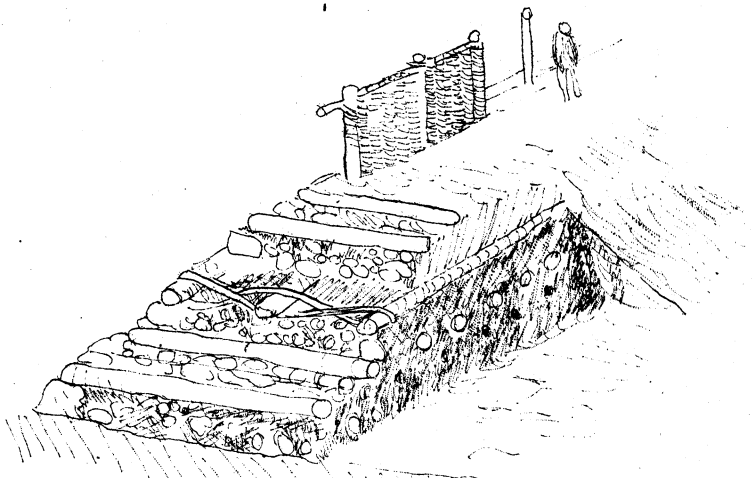
Maiden Castle, near Dorchester, is a good type of such work. Its trace points to a Celtic origin, and the presence of stone implements as well as Roman relics shew that it has been successively held. The neighbouring hills are dotted with tumuli, and there are many villages probably to be found there. Its name, too, is purely Celtic.

Mai, or *Mawr*, *Dun* is the great hill, or great fortified hill. It was the chief fortress of the Durotriges, whose name is derived from *Dwr* (water), and who were therefore "dwellers by the water."

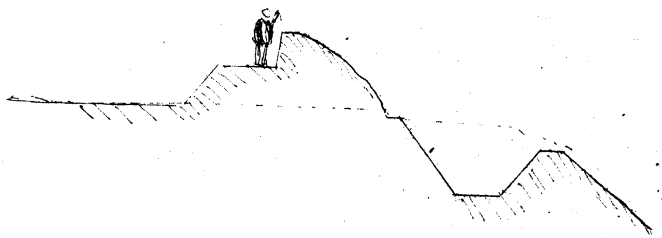
The Roman relics merely mean that until the Romans came it was the centre of defence of the hill villages, whose tumuli dot the downs on every side; and then, when the Roman conquest extended thus far, the legionaries utilized this admirable position for defence and menace until the neighbourhood was pacified. The enormous multiplication of its ditches, the extraordinary complication of its entrances, were surely, in a camp large enough to hold the head quarters of a legion, unnecessary for the well-armed *principes* and *hastati* of a Roman legion. It would say little for Roman skill in defence, or for the power of Roman arms, if all this mass of entrenchment were absolutely essential to security against the ill-clad, badly-armed Durotriges. Refer to the details of the work as shewn in Fig. 8.

It is situated on a long projecting spur, extending for about 1,200 yards from the hill range, of which it forms a part, and which has in the valley on its southern side a small stream, the Winterbourne. The sides are distinctly steep, and hence, both to procure earth for the parapet, and at the same time increase the obstacles to an assault, the ditches and corresponding valla have been multiplied. It is possible, inasmuch as there are level spaces now existing between these external ditches, and as also the command of the inner rampart is sufficient to fully and safely overlook the external valla, that this work may have had two lines of defenders, but retreat from an outer rampart into the





Construction of a Celtic Camp (after Viollet le Duc)



Profile of a Gallo-Roman fortification

body of the fortress could have only been effected by the gates at the east and west ends. It will be noticed again that towards the end of the main enclosure, nearest the point of the spur, there are the remains of a cross rampart that divides the fortress into two unequal fractions. The weakness of this at present points to two assumptions. First, that if made after the main trace, it was merely a party boundary for local reasons, such as to divide the chiefs from the people or the priests from their followers. Secondly, and more probably, it is the remains of the western side of the old British work which existed at the extremity of the spur before it was altered and improved by, possibly, Belgæ or Romans.

The intricacy of the entrances is very striking, but in this case, as well as possibly in the cross rampart, the hand of the modern cultivator has had much to do with the present aspect of the earth-mounds. Time was when, during the Napoleonic wars, it paid farmers to sow even the barest land with corn, provided it brought in a guinea's worth of grain to the acre. These old occupation sites have always richer soil than the neighbouring lands, and being artificial have greater depth of soil too. Hence it was that hill forts have been so often cultivated even when the adjacent land was only partially so; and one of the results of this was not merely the degradation and destruction, complete or partial, of the earth-mounds, but also the formation of new openings or track-ways by which carts and workmen could more easily reach their work. Certain it is, however, that the entrances of the "castle" were originally winding, and were hence commanded, at every turn, by the neighbouring mounds. It may be almost taken for granted that there was only one gap made at each end of the main or inner rampart instead of the two now existing. Whichever was the real one, the other was made probably in recent times to facilitate egress. The approaches to the ditches were possibly made easier at the same time, though the ordinary action of rain and weather would account for much.

It will be seen that on the western side, where the easiest approach and therefore the greatest danger lies, the trenches are most numerous and most important. Here the neck of land uniting the spur with the hill range is most strongly held; and the advanced parapet may well have been occupied to cover and protect the gateway.

Maiden Castle is a striking example of successive occupations up to Roman times certainly. Stone lance-heads have been found there, and the outer or eastern section is British or Celtic, both in position and extent. Roman remains are numerous, and here, therefore, the head-quarters of a legion, and finally a permanent station, may have been established, until the old oppidum of Dunium ceased to exist and Durnovaria was built, with earthern rampart and with Roman wall, to become modern Dorchester. "Maiden" was too far from water to be permanently occupied. The Winterbourne was too far away to be the source of water-supply of the Romano-British city; and so, when the Durotriges became Romanized, and all danger to the legionaries had passed away, the bleak, bare, hill fortress was

abandoned, and the Roman soldiers and their British wives became the forerunners of the present burgesses of the chief town in Dorsetshire. But in other places the old hill fort was still longer held and strengthened as time went on. In some cases this occupation lasted into almost modern history.

Old Sarum, a Celtic and Belgic stronghold, became the Roman Sorbiodunum, and then the Saxon Searbyrig, both names meaning the dry hill-fort or town. Thence the change through Searobyrig, Seareberi, Searesbyri, Saresbury, and Salisbury, as the ancient writers alter and spell the name.

Complicated fortresses therefore, such as these, are probably præ-Roman in their origin, but have been altered and improved by Romans or others.

III. *Roman works,—of regular trace.*

The shape adopted by the Romans was very different from those previously referred to. It was based evidently on their warlike organization, the legion. According to the best ancient authorities, Polybius, for example, a Roman consular army consisted of two Roman legions, of 4,200 infantry and 300 cavalry each, and two bodies of allies, each composed of 4,200 infantry and 900 cavalry, giving a total of about 19,000 men. Other writers give 5,280 men as the strength of a legion. But whatever its numbers were, it was sub-divided into 10 cohorts, built up of 30 maniples, each of which contained two "centuries." The maniple was commanded by a 1st and 2nd centurion, with an ensign (vexilarius), and two non-commissioned officers. The legionary troops were classified as *Velites*, or light troops, armed with skin helmet, shield, sword, javelin, and a few small darts, who apparently did not form part of the regular line of battle, but acted as skirmishers and scouts; the *Hastati*, or first line, armed with the buckler or scutum, helmet, breast-plate, sword (worn on the right side), and two spears; the *Principes*, similarly armed, but older soldiers; and lastly, the *Triarii*, or picked men of the reserve, who were armed somewhat similar to the Hastati, but probably carried the shorter spear known as the pilum, from which they were occasionally called *Pilani*. The three maniples of each Cohort, therefore, were those of the Hastati, Principes, and Triarii, rendering the fractions a "tactical unit," that is, one capable of independent action.

The cavalry were organized into 10 troops, or Turmæ, each of which was subdivided into three squads, each under a decurion, the senior of whom led the troop.

To an army was usually attached a body of allies or auxiliaries, of whom one-fifth of the infantry and one-third of the cavalry were chosen as *Extraordinarii*, to act with the reserve; and finally a body of picked men, called *Ablecti*, or *Selecti*, was formed into a personal body-guard for the general. The method of encamping such a force will best be understood by reference to Fig. 11; but when the legion encamped alone its formation was slightly different. The form adopted for the encampment of a Roman army

was always right-lined; that is to say, it was either a square with four gates, or a rectangle with six, or owing perhaps to careless or hasty tracing, some form approximating to these. But its main characteristics are the straightness of its parapet, the sharpness of its angles, and the fact that it is not as a rule fitted to the ground, so as to follow its curvatures, as the other camps were. In many instances they are distinctly badly placed, and this is perhaps due to the fact that they were hastily thrown up as temporary protections after the march. Such are the Castra Exploratoria, which were not intended to be held for a long period. Others, that formed the head-quarters of the army for a short time, were the summer camps, or Castra Œstiva; but even these were not very formidable, for their ditches were but eight feet deep by six feet broad, and their parapets about four or five feet high. Fig. 9 is supposed to be the camp of the 9th legion at Dealgin, Ross, in Strathearn, during Agricola's first campaign. But where the force was small and occupying, as a detachment, some important post, there the resources of military art were called in to help the defenders. These were either Castellæ (or Castles) when very small, and Castra Stativa (hence "stations") when larger. These, situated near water, or in good positions for overawing the country, such as the junction of the track-ways, or near the fords of rivers, became in many instances the towns or cities. When the armed occupation lasted into winter, even the larger armies, as well as the detachments therefrom, chose more convenient places than perhaps their summer sites afforded; and these (Castra Hiberna), like the stations, often became permanent towns. The traces of this Roman origin are easiest seen in such names as Winchester, Chester, and so on, where the Roman *castra* has been transmuted into the Saxon *ceaster*, and hence Chester, the fortified town. These smaller works have more prominent ditches, and in many cases these ditches have been multiplied. But it is scarcely likely, again, seeing that the range of the missile weapon was on an average well under 100 yards, that these fosses, with their intervening ramparts, were intended as successive posts for defence. Even if the main or inner rampart were not furnished with a wooden palisading (which it probably was) it would be impossible for the defenders to retreat from one ridge to the other without being followed at once by the assailant. In a running fight such as this, the lightly-clad savage might have the advantage, and might enter the main work on the very heels of his adversary. Retreat into the interior of the work was only intended to be effected by the gates, not helter-skelter over the parapets; and to withdraw through these complicated ditches to the entrances would have been often quite impossible. But, remembering that the last rush of all was the real danger, and that to make it successful the assailant must be possessed of all his strength, it is quite possible that these successive ditches were only intended as a series of obstacles to a sudden attack, both giving the defenders time to bring up troops to repel it, and rendering the attackers tired and out of breath when they came within reach of pilum or sword.

Fig. 10. At Ardoch is a good example of this class of castrametation. It is one of those which marked the line of Agricola's conquests in North Britain, and is situated at Ardoch, in Strathallan. It is known as Lindum, and from an inscription on a sepulchral stone found there, was once garrisoned by the first cohort of Spanish auxiliaries. The examples given are more regular than many true Roman camps, but whether they adapt themselves to the legionary formation or not, earth-works with well-defined angles and traced by straight lines, may be generally attributed to the Roman era.

The camps of the later invaders, the Saxon or Dane, are rarer than those of the preceding races. It was long before their attacks assumed the character of permanent occupation. When they came across the North Sea, semi-civilized Roman Britain had deserted the bleak and open highlands for the fertile valleys, now crossed by many a Roman road. Though "the rude inhabitants who, living wild and dispersed over the country, were themselves restless and easily instigated to war, Agricola, after his conquest of the country, did all he could to civilize and tame his late opponents. At first they were prevailed upon to associate more together, and for this end were instructed in the art of building houses, temples, and places of public resort. The sons of the chiefs were taught the liberal sciences." Walled cities were now the main objectives of an invader, and were stormed or taken without waiting to excavate huge earthen ramparts. Such camps were only necessary at the base of supply near the sea, and if any were wanted, the neighbouring hills would, as a rule, provide numerous old earth-works which could be repaired and improved. It is quite possible, therefore, that some of the more formidable camps, as they exist now, may be after the Roman era; but it is difficult to decide accurately unless other and less doubtful traces than earth-mounds are left. Where the Romans occupied, and perchance improved, there they have left undoubted traces of their life; but it is rarely so with the Saxon or the Dane, for there was less necessity for them to occupy for long their temporary camps. Better and more comfortable quarters than bleak hill-tops were to be found in walled cities like Silchester, which, besides shelter, gave opportunities for plunder and glory.

To sum up the general results of an examination of British camps, it appears, speaking very generally—(*a.*) That isolated hill-works of simple trace, and following the hill-curves, may be assigned to early British or Celtic times; when the tools were simple and probably of stone. (*b.*) That camps with square or rectangular or right-lined tracing, are generally Roman; because it fits into their military organization. (*c.*) That vast earth-works with many ditches and valla, and still (like the first kind) following the contours of the hills, may be late British, or even original Belgic, altered and improved by Roman, Saxon, or Dane. The only proof as to which of the conquerors had most to do with it would lie in the nature and number of the relics that could be

found within its area. (*d.*) That multiplication of ditches means the result of better work, that is, better tools. And that these successive lines of valla are not lines of defence, but only obstacles to an assault. (*e.*) That camps small in area, but circular or oval in shape, may or may not have been made by Saxon or Dane; but if situated near river-ways, which were the main highways of approach, they are probably assignable to them. Here local tradition and local names would be the best guide, for the traces of their life, in implements or tools, are often rare and obscure.

The other forms of earth-work may be dismissed in a few words. Many so-called castles crowning bold, and especially isolated, hill-tops, are frequently too small to hold the tribal gathering for defence, and both too exposed to view and unnecessarily difficult of access, to be the cattle kraals of a neighbouring village. Moreover, the ditch in the cases referred to is inside the vallum—that is to say, is not defensive in character, but only designed to provide sufficient earth for the encircling mound. Their want of defence and their prominent isolation, points to the conclusion that they were either places of council or of religious assembly.

But in addition to these earth-works, with which mere earth-mounds other than sepulchral tumuli may be classed, there are many long lines of entrenched track-ways or boundaries which intersect the country in different directions. Primarily they are evidently not Roman. The engineers and road-makers of the legionary forces cared little about physical difficulties. Their roads are as straight as lines could make them, over hill and dale, from one point to the other. They valued time, and the shortest way was in their estimation the quickest. Their roads were, moreover, generally carefully made, built up systematically and metalled. So good were they that many are quite useful and in fair state of repair even now.

But Briton and Celt, Belgæ and Saxon, worked in different ways and with less skill. Time weighed little with them, and labour, for they knew the value of slave labour, even less. The Roman soldier had much to do with his roads; the Belgic or Celtic slave had more to do perhaps with these entrenchments than the warriors who ordered and directed the work.

"Track-ways" are common between the sites of ancient villages. They are devious and winding, and are the forerunners of our modern crooked, irrational village lanes. Sometimes they were sunken, with a bank on either side, when they are known as fosse ways, and were perhaps so constructed for purposes of concealment. In these, and in all other roads, the ditch or excavation has nothing to do with defence. But boundaries of territories or lines of demarcation between hostile tribes are defensive in their character, for the rampart is high and the ditch on one side only, namely, that where the danger lay. Such was Antonine's Wall, such was Wansdyke in Wilts. The old tradition has given them names such as Wan's or Woden's Dyke; Grime's or Grimm's Ditch; again, ascribing the unknown to divine or giant power.

Some seem to wander almost irregularly and without method, as if the engineer who superintended it either could not draw a straight line, or allowed the different bodies of workmen to execute their labour as they pleased, so long as the general direction of the proposed boundary was maintained.

There are four of these boundaries ascribed to Belgic tribes in the South of England—(i.) The Combsditch in Dorsetshire, traces of which are found near Bere (on the Piddle), Blandford (on the Stern), and near Shaftesbury; (ii.) The Bokerley ditch, dividing Dorsetshire and Wilts; (iii.) A ditch on Salisbury Plain, north of Wilton, and lying between the Wiley and Avon from Durnford to Newton; and there are parts of many others. Of all these only small fragments remain, the spade and plough having obliterated all traces of them in many parts, but the ditch is always on the side away from the coast, and the mound or vallum on that nearest the coast, thus proving it to be of a defensive character. But the most marked and most massive is (iv.) Wansydyke, which, starting near Bristol, passes south of Bath, and so through Savernake Forest, south of Marlborough, to Inkpen, beyond which it has not been traced. But its massive character, coupled with the numerous hill forts that are associated with it, point it out as being probably the boundary which, with the Thames (until Divitiacus invaded the country north of that river), marked the limits of the Belgic dominion. It has been twice raised; the lower elevation being very marked in some of its sections.

It would be impossible, in conclusion, to affix any definite date to the older and simpler camps. Only the Danish, Saxon, and Roman fortresses can be said to come within British historic time; and in dealing with periods anterior to the invasions of these peoples, conjecture has but a slender basis on which to build its views. Possibly the grander earth-works are not older than Belgic days, but it does not follow that the coast tribes of Britain had not improved with their neighbours on the coast of Gaul. If they had attained anything like an equal civilization—after all in savage life but a question, to a great extent, of better tools and better arms—there is no reason why the complicated and formidable class of hill fortresses might not be earlier than the Belgic invasion. But the ruder and more simply traced camps seem certainly older than these; for, if the builders had had good tools, they would have made them grander. All savages attach value to the size and massive nature of their defences. They were locally of the age of stone, whatever that local age might be. On the one hand, stone weapons and tools are in use now, and are said to have been in use in Ireland as late as the 16th century. On the other hand, the period when stone was in general use goes far back into Archaic time. Whenever that was, in Southern England, then, the early Briton, with rude tools, the cause rather than the result of his rude life, raised his earliest known works of defence.