

I.

ACCOUNT OF THE EXCAVATION OF BIRRENS, A ROMAN STATION IN ANNANDALE, UNDERTAKEN BY THE SOCIETY OF ANTIQUARIES OF SCOTLAND IN 1895.

I. GENERAL HISTORY OF THE PLACE, AND OF THE EXCAVATIONS; AND DESCRIPTION OF THE DEFENCES. BY D. CHRISTISON, M.D., SECRETARY. (PLATES I.-III.)

The main object of the following paper is to give an account of the excavations undertaken by the Scottish Society of Antiquaries, during the summer and autumn of 1895, at Birrens; but advantage has been taken of the opportunity to collect also the chief information already recorded about the place. The share of the task that has fallen upon me is to treat of the general history of the station and of our operations, and to describe in particular its defences.

1. GENERAL HISTORY.

The situation of Birrens is 8 miles due north of the western end of Hadrian's Wall at Bowness, separated from it, of course, by the Solway. The readiest access to it is from Kirtlebridge railway-station, only about $1\frac{1}{2}$ mile distant.

As to the name, Alexander Gordon, who may be said to be the discoverer of Birrens, does not apply it directly to the station, but to a few houses at it, called "the Birrens." There can be no doubt, however, that as the word, with its variants Birren, Burran, Burrance, Burian, is commonly met with in the names of fortified sites,—fourteen of the sixteen places in Dumfriesshire where it occurs having remains of fortification,—it is much more likely that the name passed from the fort to the cottages than the reverse. As to the origin of the word itself there is no want of candidates. The Irish *boirean*—pronounced *burran*: a large rock; a rocky, stony district—from which a considerable number

of local names in Ireland are derived,¹ and the apparently analogous *borrons* extensively used in the N.W. of England in the sense of stone clearings,² both come very near forms of Birrens. *Birn*, the hill-pasture on which sheep are "summered," in common use in the South of Scotland, scarcely differs in sound from Birren, and may well be the root in some cases, for the name is not confined to "Roman camps" on the plains, but is more commonly applied to the native hill forts, which are often situated on such hill-pasture sites. Again, a Scandinavian root may be indicated by the fact that the name is entirely confined in Scotland proper to the sixteen examples in Annandale and Eskdale, bordering on the strongly Scandinavian Cumberland, and apparently crops up again in Orkney and Shetland in the form of *Burian*. But, on the whole, the Anglo-Saxon *byrgene*, *byrigen*, a sepulchre, monument, or tumulus, seems the most probable root. It comes very near birren in sound, and it seems to linger in the locality, both in the primitive sense, as when the minister of Kirkpatrick-Juxta says "there are a great many *cairns* or *burians* in the parish,"³ and in the secondary meaning, where the minister of Tundergarth speaks of the "many small *entrenched camps* or *birrens*" in his parish.⁴

The first to give any account of Birrens was Alexander Gordon.⁵ He describes it as oblong in form, fortified by four ditches and five ramparts, but a great part of them carried away on one side by the Water of Mein and Haughill Burn (more probably Haughgill, as printed on his plan). He saw long hollow square stones, intended apparently for conveying water underground, a large stone-arched vault running a great way along the south side, marks of stone building, and a stone with Roman letters, too defaced to be read. He tells that he went into the vault, but could not proceed far, it being choked with rubbish, although a countryman told him he had gone in about 12 yards.

Gordon's plan, of which I give only the essential features in fig. 1,

¹ *The Origin and History of Irish Names of Places.* P. W. Joyce.

² J. G. Goodchild. *Trans. Cumb. and Westm. Arch. Soc.*, viii. 41.

³ *Old Statistical Account of Scotland.*

⁴ *New Statistical Account of Scotland.*

⁵ *Itinerarium Septentrionale*, 1727.

unfortunately shows what he imagined such a Roman station ought to

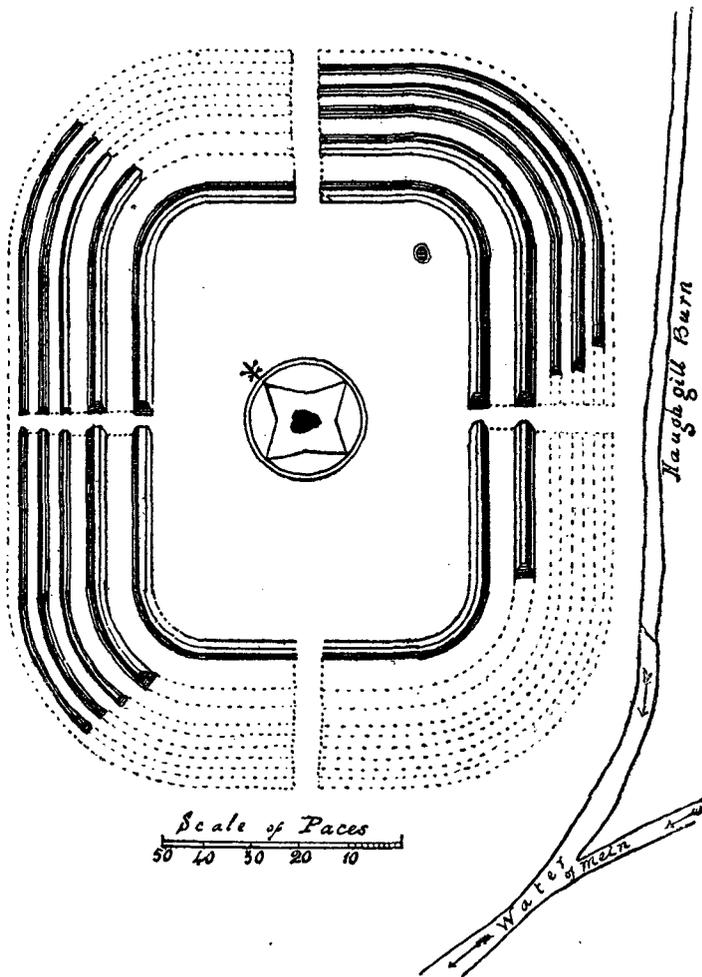


Fig. 1. Gordon's Plan.

be, rather than what it was. The lines of defence are represented as

being perfectly symmetrical on the four sides,—an arrangement which, improbable from the nature of the site, is contradicted by Roy's plan. The four gateways are placed exactly in the middle of the sides, which is certainly not the case. Finally, he gives *five* trenches on the plan, but in his description says that there are *four*, and the actual number on the only well-preserved side, plainly visible at the present day, is *six*. The interior, on his plan, is a blank, except that about 50 feet from the crest of the rampart in the north-east angle there is a double circle about 15 feet in diameter, like the mouth of a well. It is not mentioned in the text.

“Baron Clerk” of Penicuik is the next authority who appears upon the scene. About 1731 he secured a sculptured figure of Brigantia, and what are probably the inscribed pedestals of two statues of Mercury, which he tells us¹ were found “near the Roman camp at Midlebie,” in the grounds of a poor lady, “in a little temple, which by age had fallen down and become a ruinous kind of heap.” In a subsequent note he describes the spot as being “on the side of the ancient Roman camp at Midlebee”; and in his *Latin Dissertation*, written in 1743, he says it was in a rather moist place, outside the fortifications of the camp. As to the nature of the temple, in his *Memoirs* he doubts not but that some “lovers of antiquity have so far revered the heathen religion as to have built a temple for the sake of this statue.” But in the *Dissertation* he says that it appeared to have been a temple or Roman shrine dedicated to the god Mercury and the goddess Brigantia; and notwithstanding that he had previously described it as a “ruinous kind of heap,” he now gives its length as 36 feet, its breadth about 12 feet, and says it was not inelegant, although destitute of the finer ornaments of architecture. From his confused and contradictory accounts, all that we can safely conclude is that the remains were found in a temple-like building outside the fortifications.

General Roy, who comes next, about the middle of the century, gives no description of the place, which perhaps he had never seen, as it was not in the part of Scotland that he was commissioned to survey; and the plan (fig. 2, reproducing only the essential features) in his well-known

¹ *Memoirs of my Life*, 138-140 and 222.

book, which was published after his death, may have been furnished by

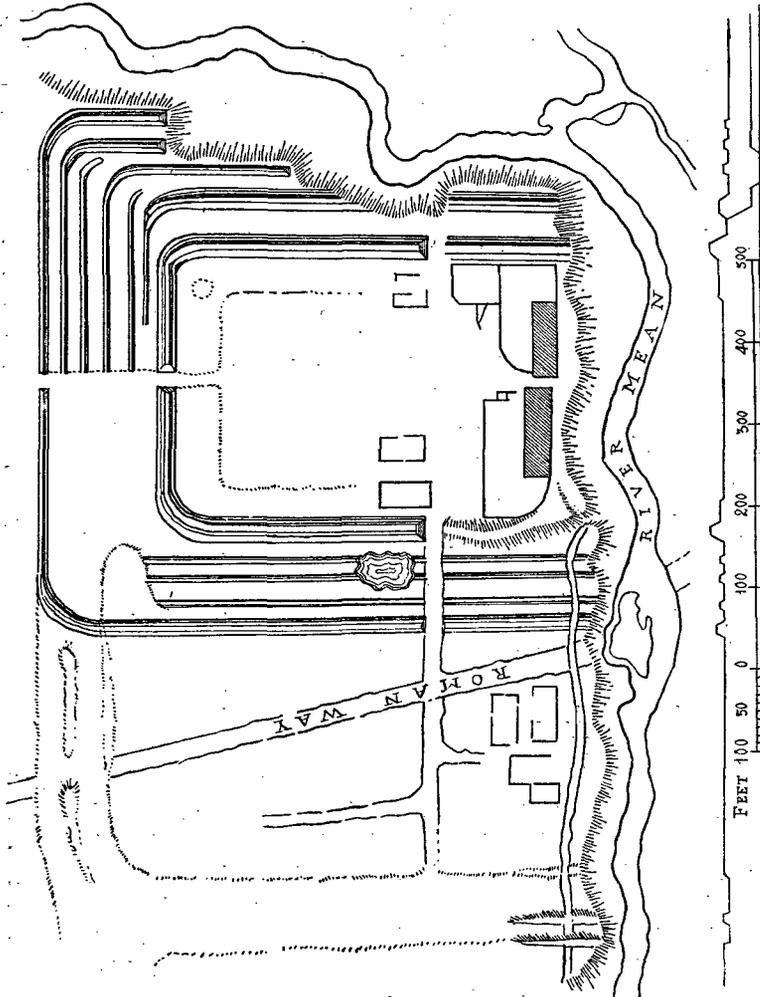


Fig. 2. Roy's Plan.

a brother officer. It dates probably from about the middle of the 18th

century, and shows no greater amount of destruction to the entrenchments from the erosive action of the streams on the east than is indicated in the very unreliable plan of Gordon. But the main rampart on the south side, which, if we may believe Gordon, was entire in his day, is completely gone in Roy's plan. On the north side, however, the defences are represented very much as they subsist to the present day, a strong inner rampart being covered by six parallel trenches, much silted up; but there is also on the plan, beyond the outer trench, a rampart, of which perhaps a trace exists at the east end, although the site is now mainly occupied by a modern road. Another difference is that, on rounding the north-east angle, two of the six trenches are represented as running into other two, so as to reduce the number on the east face to four, and these are separated from each other by distinct ramparts, the whole having a stronger rampart in front besides the main or inner rampart of still greater dimensions in their rear. Roy's plan also reduces the trenches on the west side to four, but with only two ramparts, one in front and the other in rear of the whole, as on the north face. All the ramparts are represented as if in perfect condition, with broad flat tops and regularly sloping sides, the main one being from 25 to 30 feet in width. It is probable, however, that this is a "restoration," and that the ramparts had much the same flattened, unshapely surface then that they have now. Three entrances are given: the north one in the middle of the defensive lines; those on the east and west opposite each other, but nearer the south than the north end of the fort.

The interior is represented uncultivated, with six rectangular enclosures or markings of some kind, unequal in size and not symmetrically placed, besides two others, shaded as if they were buildings, one 110 by 30 feet, the other 90 by 25 feet, all in the southern half of the space. In rear of the rampart, on the three sides in the northern half, is a platform, shown also in the profile view, varying in width from 30 to 55 feet. The circular object, represented by Gordon, in the north-east angle, is also given in Roy's plan, although in a less defined manner. It may be at once mentioned that we found no trace of this structure, either on the surface, or by excavation at the spot; neither could the supposed modern buildings be identified by any remains.

But Roy's plan introduces an addition to the station, wholly overlooked by Gordon. This is annexed to it on the west side, and is nearly as large as the main work itself. It appears to have been enclosed on the north and west by a prolongation of the three outer entrenchments of the north side of the main work, but only fragments of the ramparts remained to indicate the general design. On its east side it was bounded by the western lines of the fort proper; and, as in it, the south side is represented to have been carried away by the Mein Water. The interior is shown uncultivated, with four rectangular markings or enclosures at the south end, and crossed diagonally from north-west to south-east by a "Roman way." An apparent roadway also crosses it from east to west, starting from the west entrance of the main work, and giving off one branch to the north and another to the south in the interior of the annex.

There is one circumstance that throws some suspicion on the accuracy of the plan in Roy's volume. The defences on the east side, which derives considerable natural strength from the ravine of Haughgill Burn, are represented as being more massive and occupying a greater width than those on the north side, which has no natural strength. This is an arrangement highly improbable in itself, and quite unprecedented in my experience of ancient fortifications of all kinds in Scotland.

Bishop Pococke¹ notices Birrens very briefly,—“Rid to Berrin, near Middleby, which was a Roman town: the fosse remain, and on a stone in one of the houses I saw these letters *AXSAN*,”—which he prints as *CONIS*—if they were sloping and rudely carved.

About the same time Maitland² visited the place and gives the following particulars, which I slightly abridge:—“The fortress consists of two parts, and appears to have been very strong, the eastern part having been fortified with quadruple ramparts and ditches, the western with triple ramparts and ditches. By its ruins it appears to have been a town of great note, for it seems to have consisted of divers streets, with subterranean stone vaults, which may be gathered from one of the said vaults,

¹ *Tour in Scotland*, 1757, p. 6.

² *The History and Antiquities of Scotland*, 1757.

which is said to be at the southern side of the said town, but being now filled up, I could not see it." He also speaks of the damage done by the brooks preying on the place, and of the discovery of broken "inscriptional stones," and of the stone in the wall of a house "whereon are the letters AXINU CONIS, the meaning to me unknown." He also says that Gordon noticed only the eastern part of the station, so that he gives only half the dimensions.

Pennant,¹ who was probably the next visitor, calls it *Burrens*, describes its position, notices the damage done by winter floods, and says it was well defended by four ditches and five dikes. He mentions that "a hypocaust had been discovered here," but does not say that he saw it or the inscribed stones and coins, the discovery of which he also notices; and he observed a place formed of square-stones, which he was informed contained at the time of the discovery a quantity of grain. He also heard that there had been a large vault, 120 feet long, designed for a granary, but that this had long since been destroyed for the sake of the materials. He gives a third reading of the stone in the wall of the house, AXAN CONIS.

This concludes the history of Birrens in last century. Pennant indeed records having seen at Hoddam Castle other altars and inscribed stones, which must have been found subsequently to those mentioned by Clerk, but does not give the mode and time of their discovery.

The more recent authors who have noticed Birrens—Chalmers (*Caledonia*), Stuart (*Caledonia Romana*), and the writers in the *Old and New Statistical Accounts*—merely copy from the older authorities, with the exception of the Rev. Richard Nivison, minister of Middlebie, who tells us (account of the parish compiled in 1831, *N.S.A. of Scotland*), concerning the annexed work, or "procestrium," that it "was dug up some years ago, and is now completely destroyed. In it were found many splendid specimens of Roman antiquity, particularly large stones neatly cut and ornamented, with inscriptions perfectly legible; but most of them have been sold or given away, and none I believe exist in their native parish except one erected in the neighbouring garden of Mr Irving of Burnfoot." This destruction of the procestrium may

¹ *Tour in the Hebrides*, 1777, part i. 102.

have taken place in 1810, when Mr Clow, the proprietor, discovered the altar now at Burnfoot House, as mentioned in the Irvine MS. preserved in the Library of our Society.

The only other contribution to the history of Birrens in this century has a melancholy interest. It is an unpublished reminiscence, communicated to Mr Barbour by Mr Alexander Hewison, schoolmaster, Thornhill, of a conversation forty years ago with a farmer named Leach, who alleged that, soon after the dukedom of Queensberry passed to the Buccleuch family, or about 1816, he held a contract to build dykes on various farms on the estate, including Birrens, and that he was authorised to take stones from the camp. Hundreds of tons were accordingly removed from the outer wall and from houses inside the fortification. Mr Leach specially mentioned door and window lintels, some with inscriptions, which, when the stones were long enough for the purpose, were set up as gate-posts, with the lettered side turned to the dyke. He also stated that he found a cartload of wheat in an arched cellar, a large altar, which he tumbled out of the way into a wet hollow and covered up, and an ashlar-lined well. He also spoke of the head of a Roman god, but did not say by whom it was found, or what became of it.

In this account it is not clear what is meant by "the outer wall." Mr Hewison understood Leach to mean that the stones were taken from a scarp or counterscarp, of which they were the facing, but this seems highly improbable.

Whatever reliance may be placed on Mr Leach's statements, handed down after so long an interval, it is probable they had some foundation, although unfortunately they could not be verified by a search of the estate books instituted by Mr Dickson, the present chamberlain. Perhaps it was in the course of similar plunderings on the great scale that the altars, carved figures, and other stone objects now in the National Museum or in private houses were found. But there is no record of any methodical or scientific excavations having been undertaken previous to our own. The inquiry as to the probable dates of the important "finds" I shall leave to Dr Macdonald, as it comes naturally with the description of the objects themselves. I have only to add that

plundering, on a small scale at least, probably continued to be practised down to our own day, as I have been informed by a man, not far advanced in years, that in his youth it was quite customary to carry off stones from the station, and that he has himself assisted in the work. No relic of any consequence, however, seems to have been found since early in the century in the main work, and only one or two small fragments of inscribed stones in the annex, although pottery of a Roman or Romano-British type is turned up yearly there by the plough.

The only plan of the place published hitherto in this century is that of the Ordnance Survey. This is on too small a scale to show details; and as it agrees substantially with Mr Barbour's, it is unnecessary to notice it further.

The observations of all the writers quoted are so vague that it is difficult to tell how far they are reliable and what precise meaning to attach to them, but the following are the chief facts that seem to be deducible from what they have recorded. The station consisted originally of two parts, nearly equal in size, occupying a total space of about 1050 by 670 feet. The western part, not so strongly fortified as the eastern, and much injured when first described, was entirely destroyed some years before 1831—perhaps in 1810. The defences of the east or main work had been greatly carried away by floods prior to 1727 on the east and south sides, but do not seem to have suffered much, if at all, from the same cause since. Early in the present century, however, the fortifications, with the exception of the main rampart, were entirely destroyed on the east side by the making of a road, and on the west side by being included in the ploughing of the annex.

When planned by Roy, the interior of the annex was crossed by a "Roman way" and other roadways, but there is no trace of these now. Various observers have recorded in a vague manner the presence, in the interior of the main work, of streets; a large and long arched vault; a large vault, 120 feet long, designed for a granary, probably the same as the last, and described as having been destroyed for the sake of the materials; marks of stone buildings; a hypocaust; and a place

formed of square stones for holding grain. Outside the fortifications—but whether of both works or the main one only is not clear—a ruined temple, of very doubtful character, is also mentioned.

Information as to the mode and dates of the discovery of the altars and other stone objects, now preserved, and as to the precise localities where they were found,—whether within the main work or the annex, or outside both,—is exceedingly vague. The most precise statement is that of Mr Nivison—that many splendid specimens of Roman antiquity were dug up *within the annex*, some years before 1831.

Fragments of Roman, Romano-British, or Gaulish pottery have long been ploughed up in the annex, and continue to be so to the present day, but hitherto appear neither to have been preserved in museums nor described. The main work, probably from its stony character immediately below the surface, appears to have escaped the plough, and it was not known in the locality that pottery had ever been found there.

2. THE EXCAVATIONS.

(a.) *Origin of the Excavations, Mode of conducting them, and General Condition of the place before they were begun.*

In the spring of 1895, the Dumfries and Galloway Antiquarian Society having suggested to the Council of the Society of Antiquaries of Scotland that they should undertake the excavation of Birrens, a committee was appointed to carry it out, consisting of Sir Arthur Mitchell, the Hon. Hew Dalrymple, James Macdonald, LL.D., Mr J. H. Cunningham, C.E., Dr Robert Munro, Joseph Anderson, LL.D., and myself; with Mr Barbour, architect, Dumfries, as representing the local society. Permission having been obtained from the Duke of Buccleuch, proprietor of the ground, and from Mr Rithet, the tenant, work was begun on the 29th May, and was carried on, with occasional intermissions from bad weather, till the middle of January of the present year. The general superintendence was undertaken by Dr Macdonald, Mr Cunningham, Mr Barbour, and myself; and on Mr Barbour devolved the onerous duty of making the plans and drawings. As it was necessary to direct the operations very carefully, not more than from two to eight workmen

could be employed at a time ; and they were constantly and ably supervised by Mr Thomas Ely as clerk of works.

The general plan of conducting the excavations was first to make sections through the ramparts and trenches, in order to ascertain their precise structure ; and secondly, by means of long exploratory cuttings in the interior, to find where the foundations of walls remained, and to trace them out.

The site of the station, in the angle of junction of Haughgill Burn, now called Satur or Middlebie Burn, on the east side, with Mein Water on the south, is about 200 feet above the sea, and is flat on the whole, but with a gentle inclination to the south end, where the ground of the main work has gradually fallen 14 feet, and finally descends abruptly by a steep, rough bank about 20 feet high upon the little haugh of the Mein Water. The stream has now retired to a considerable distance from the bank, but its former bed can still be traced close under it. On the east side, the Haughgill Burn also now flows, in its shallow ravine, at some distance from the work. To the north the ground is slightly higher than the interior, and to the west, where the annex stood, it is at first on the same level, but falling more rapidly southwards, is several feet lower towards the south end.

As may be gathered from the historical account, the defences have been sadly diminished in the present century. All that remains of the extensive works depicted by Roy are the inner rampart and six trenches on the north side, the rampart and one trench modified by an open drain that occupies it on the west, and the rampart alone on the east side of the main work (Plate I.).

Before our operations began, the flat surface of the interior in its southern half was broken by numerous narrow mounds, straight in their general direction, but too interrupted and irregular to show any definite plan ; some of these mounds were two or three feet high, but they were mostly much less than this. In the northern half there was merely a general slight irregularity of the surface.

The platform or slightly raised terrace depicted by Roy in rear of the rampart was distinct enough on the north, although of less width than his plan makes it, but could not be detected on the east and west sides

at all. A broad path or roadway, grass-covered, like the whole interior, but faintly indicated by its smoother surface, ran from the north entrance to the middle of the south end, and another crossed it at right angles, running between the east and west entrances.

(b.) *The Defences.*

The investigation of the defences was perhaps hardly less important than that of the interior, as in not a single instance have the fortifications of a Roman Station in Great Britain been thoroughly explored. Before proceeding, therefore, to describe what was found at Birrens, I shall briefly state the present state of our information on the subject.

(1) As regards Scotland, besides the forts in rear of the Antonine Vallum, only four fortified works are known that may claim to be Roman stations:—*Birrens*, Dumfries; *Lyme*, Peebles; *Strageath and Ardoch*, Perth. Now, almost all our information about these is derived from the plans of Roy and the Ordnance Survey. Not a single detailed description of them of any consequence exists. I have studied them on the spot, however, but as it is my intention to describe them ere long in a work founded on my Rhind Lectures, it is enough to state here that I was long ago struck with the complex and apparently unique character of the entrenchments at Ardoch, and particularly by the fact that they did not consist, as universally described, of a series of ramparts and trenches, but of a single rampart with a series of trenches, which differentiated them from all native works of which I had any knowledge. On the other hand, I felt a difficulty in accepting them as purely Roman, because of their complexity and their apparent character, on the surface, of simple earthworks, which, as far as I knew, would be a novelty in Roman stations. I turned therefore for information to other quarters.

(2) As to the defences of Roman stations in the North of England, our chief authorities are the plans of Roy, taken about the middle of last century, and those of Mr Maclauchlan, in connection with his *Memoirs on Surveys of the Roman Wall*, 1852-4: "*The Watling Street*," 1850-51; "*the Eastern Branch of the same*," 1857-58-59; together with the very meagre remarks upon these fortifications in his text, and in that of Dr Collingwood Bruce's *Roman Wall*. From these sources

of information it appears that all the tolerably well-preserved stations, that have been sufficiently examined, were surrounded by a stone wall and single trench, but that in the following instances there are traces of additional entrenchments of one kind or another :—

	Ramparts.	Trenches.	
Homesteads, . . .	3	3	on one side.
Carrawburgh, . . .	-	2	do.
High Rochester, . .	3	3	on one side at least.
Chew Green, . . .	3	-	on all sides.
Whitley Castle, . .	7	7	on one side ; not so many on the others.
Lanchester, . . .	-	-	faint traces of several.
Risingham,	2	1	one trench, but of extraordinary width.

The numbers of ramparts and trenches given are the most probable I could arrive at amidst the conflicting evidence of maps and descriptions. It would take too long to analyse all these here ; and I shall merely give a few notes regarding three of them, to prove how vague our knowledge of the subject is.

1. Chew Green.—The remarkable conjunction at this place of three large single-trenched enclosures with a small multiple-trenched one, and the resemblance to Ardoch, where the same conjunction occurs, has been noticed, especially by Roy. Both on his plan and Maclauchlan's the smaller work is rectangular like the others, but on the Ordnance Plan it is distinctly oval—a serious discrepancy, which ought to be easily cleared up.

2. Whitley Castle, as to form, is square according to Hersley, approaches a rectangle according to Professor Hughes, but Collingwood Bruce and the O.M. make it a trapezoidal or lozenge-shaped work. As to the defences, the following table shows the extraordinary discrepancies in the descriptions and plans of the different authorities. I have had some difficulty in determining which sides of the work are referred to in the various accounts, as some writers use the cardinal points of the compass, others those given in the table, which, according to the O.M., are the true ones :—

Authorities.	No. of Ramparts and Trenches.							
	N.W.		N.E.		S.W.		S.E.	
	Ramparts	Trenches	Ramparts	Trenches	Ramparts	Trenches	Ramparts	Trenches
Camden, . . .	4	...	...	...	2	...	...	...
Horsley, . . .	3	2	4	4	4	4	4	4
Dr C. Bruce, . .	4	4	...	...	7	7	...	...
Prof. Hughes, . .	4*	...	4*	...	7*	...	2*	...
O.M., . . .	6†	...	4†	...	9†	...	4†	...

* Irregular earthworks.

† Lines of one kind or another.

3. Risingham.—Maclauchlan expressly states that the single trench between the ramparts is 130 feet wide. This is such an unheard-of width that excavation is necessary to explain it. Perhaps it will be found that a number of trenches have silted up in this space.

This is surely enough to show that the precise nature of the defences of Roman stations in the North of England is not known. In no instance, at all events, is there any sign that the peculiarities just mentioned at Ardoch have been noticed in the English stations.

(3) But it is to the accounts of the German "Limes" of the Roman Empire¹ that we must turn for accurate descriptions and plans of the defences of Roman stations. We learn that the stations there invariably had a wall, which sometimes stood simply as such, but far more frequently was the revetement of a massive earthen rampart in its rear. In front of the wall was a *berme*, and beyond this, probably always at least one trench, often two, and in rare cases three. When more than one was present, invariably, as at Ardoch, they were trenches and nothing more, *i.e.*, there was no rampart between them, but their tops were on a level with the *berme*, and with the ground outside the defences. Let us now see how far our discoveries at Birrens correspond with these conditions.

The Trenches—(Plate I., and section A B Plate II.).—It has already been pointed out that all the trenches remain on the north front. In

¹ *Der Römische Grenzwall in Deutschland.* A. von Cohausen, Wiesbaden, 1884. *Der Obergermanisch-Rätische Limes des Römerreichs.* Lief. 1, 2. O. von Sarwey und F. Hettner, Heidelberg, 1894.

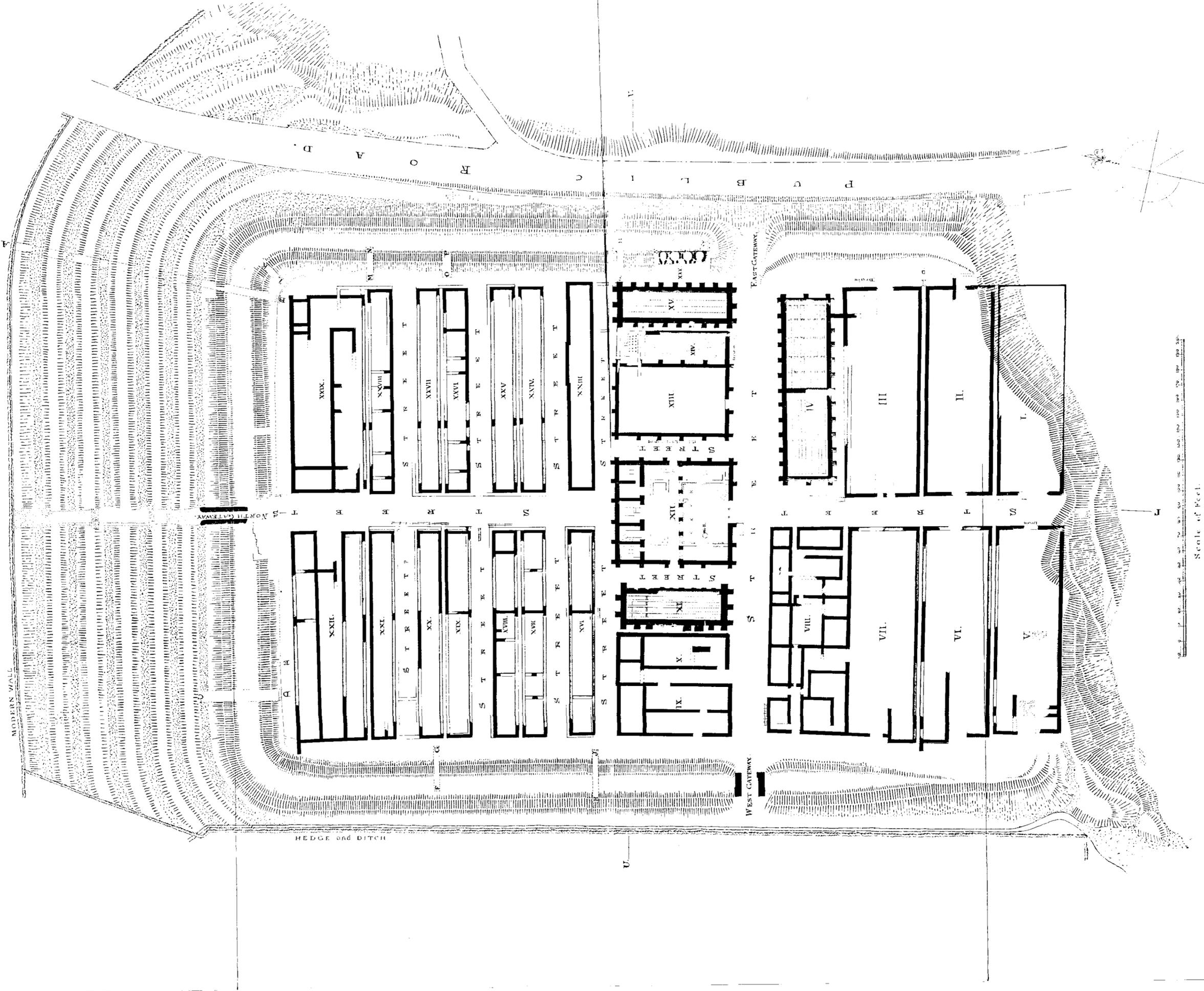
Roy's time they had so filled up in the course of ages that on his map they are not shown at all on the west side of the entrance. Nevertheless, although the space occupied by the series there is raised nearly to one dead level, their position is still distinctly marked out by slight undulations and by the marshy character of the vegetation over them. Eastward from the entrance the filling up gradually diminishes, so that at the N.E. angle from a few inches to a couple of feet of the top of the scarps are visible. At this angle Roy makes certain of the trenches coalesce, so as to diminish the number on the east face from six to four (fig. 2), but this is one reason for doubting the reliability of his plan, as it is plain at the present day that all the six bend round the angle without coalescing (Plate I.); whether they were all prolonged on the east face is doubtful; portions of the two inner ones do remain running parallel with the east rampart, but the other four now end abruptly on the broken face of the ravine; and it was a customary arrangement, at least in native fortresses, for trenches to end in this way.

Before the excavations were begun, Mr Cunningham took a profile (Plate II. section A B) across the trenches and rampart, near the N.E. angle, which proved the important fact, visible enough indeed to the eye, that we had here simply a series of parallel trenches, without intervening ramparts, just as I had long ago observed at Ardoch, thus establishing a resemblance between these two works, and with the Stations of the German *Limes* not yet proved in any other Roman or native work in Britain. Here the arrangement was more marked than at Ardoch, as the tops of the trenches were 2 to 3 feet below the level of a line drawn from the field outside to the original surface of the interior.

A section was now made across the trenches at the same point to determine their original depth and form (Plate II. section A B). These were easily made out, as the undisturbed till between the trenches was red, whereas the soil with which they were filled was of a bluish-grey tint. Thus the actual section was almost as beautifully distinct as we see it in Mr Barbour's drawing. From the inclination southward of the ground, the average height, $4\frac{1}{2}$ to 8 feet, of the counterscarps or slopes towards the defence, exceeded that of the scarps, $3\frac{1}{2}$ to 6 feet, or slopes towards the attack. The mounds left between the trenches, gently

BIRRENS ROMAN STATION DUMFRIESSHIRE.

Proceedings of the Society of Antiquaries of Scotland
Vol. XXX. Part I.



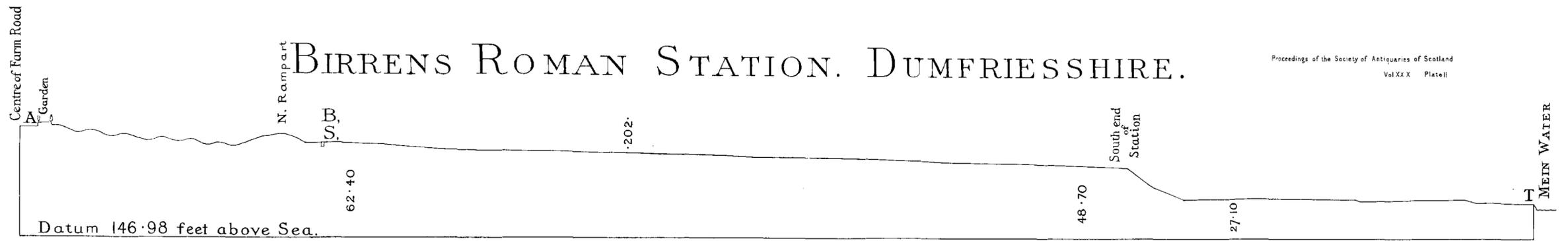
Scale of Feet.

Walling actually uncovered.
 "Do"
 Continuation between the parts opened.
 Where the walling is wholly removed.

Lucas Parbury
Surveyor & Architect

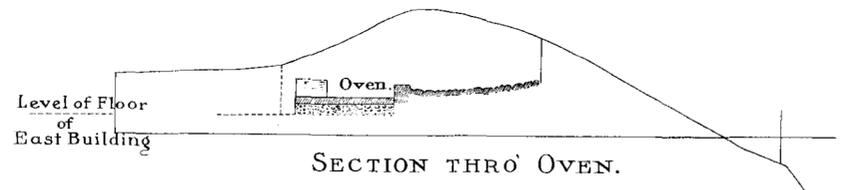
BIRRENS ROMAN STATION. DUMFRIESSHIRE.

Proceedings of the Society of Antiquaries of Scotland
Vol XX X Plate II

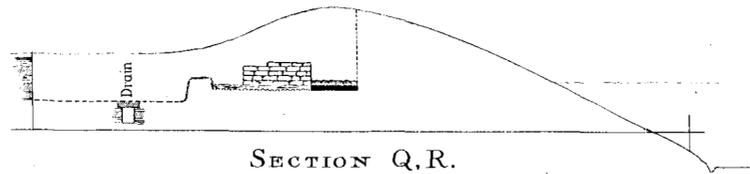


LONGITUDINAL SECTION OF STATION, A,B,S,T.

Scale
0 50 100 150 200 250 feet



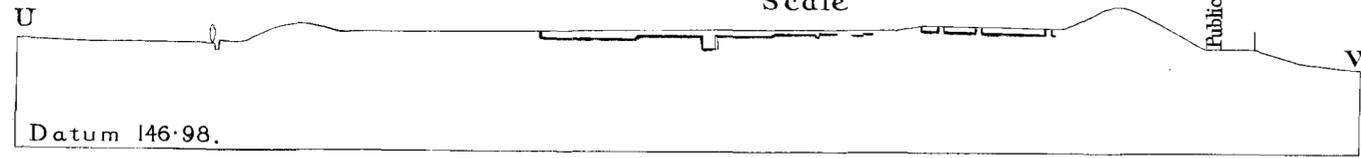
PLAN Q,R.



SECTION Q,R.



SECTION O,P.



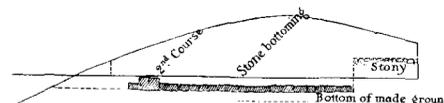
CROSS SECTION OF STATION U,V.



SECTION M,N. SECTION K,L.



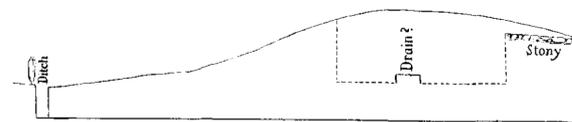
PLAN H,J.



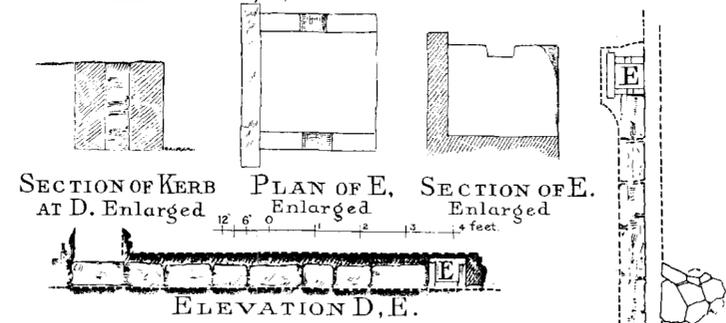
SECTION H,J.



PLAN F,G.

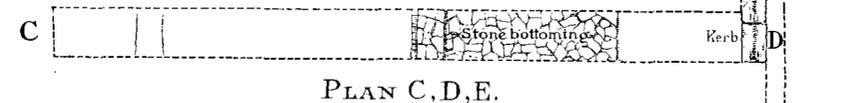


SECTION F,G.

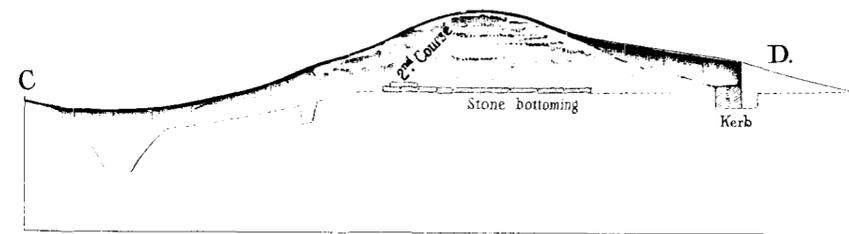


SECTION OF KERB AT D. Enlarged
PLAN OF E. Enlarged
SECTION OF E. Enlarged

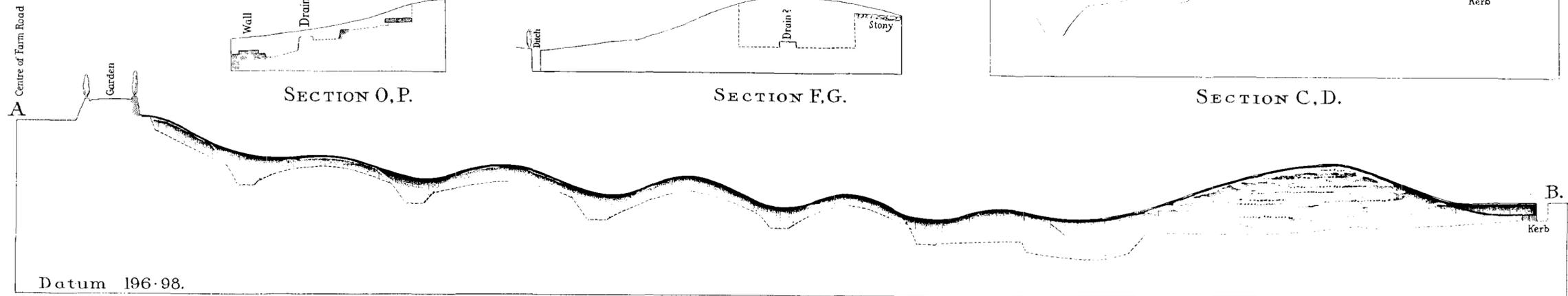
ELEVATION D,E.



PLAN C,D,E.



SECTION C,D.



SECTION A,B.

Scale
10 5 0 10 20 30 40 50 feet

Soil. 
Silt. 
Red earth 
Clay 
Brushwood 
Depth Cut 

James Barbour

rounded on the top, descended steeply to the bottoms of the trenches, which were flat, and from 2 to 3 feet wide. The total width occupied by the series was 125 feet, or an average of about 21 feet for each, but the spaces appropriated to each were unequal, and the inner trench was 3 or 4 feet broader than the others.

The soil that filled the trenches was no doubt partly from the usual "wash-down" or silting from the sides, but was apparently largely due also to marshy growths, as evidenced by the quantity of vegetable fibre in it, as well as the present marshy condition of the filled-up trenches towards the west end. In respect to this accumulation of soil there is a marked contrast with the trenches at Ardoch, where so little has taken place that their appearance without excavation is almost identical with that of the Birrens trenches after excavation.

The Rampart.—As we found it, the rampart appeared to be a mound varying from 40 to 50 feet or more in width, and rising to a height of from 4 to 7 feet above the outside, and 3 to 4 above the inside of the work. It was nowhere shapely or regular on the surface, and showed special signs of disturbance at the N.E. angle and on the west side of the north entrance, where it was hollowed on the top by a number of broad shallow pits. At all the entrances it was much broken down. On its fine grassy surface not a stone was to be seen.

In order to ascertain the structure of the rampart, a series of nine sections were made through it, most of them carried down to the original level of the ground. These I shall now describe in their order, with the help of Mr Barbour's notes, plans, and profiles (Plate II.). In the description I use the terms "front" and "rear," and their equivalents "outer" and "inner," according as the parts noticed are towards the outside or towards the interior of the fort.

1. Section on the line A B. This is in continuation of the cutting made across the trenches near the N.E. angle, already described. The rampart was found to be much spread out, as it were, by "wash-down" or silting, and probably partly by disturbance in the search for stones, so that it had come to be no less than 55 feet wide, and it encroached several feet over the first trench: the greatest perpendicular height above the bottom of that trench was 12 feet, and above the original

surface of the ground 8 feet. From top to bottom it was entirely of earth, with the exception of a very few stray stones. Had we been content to stop here, it might have gone forth that Birrens was an example of a Roman station defended by an earthen mound pure and simple, with its subsidiary trenches; but the next section yielded a very different result.

2. Section C D, on the north side, near the N.W. angle, to our surprise, showed that the middle and highest part of the mound, itself entirely of earth, rested upon a layer of stones of the following description. It was 18 feet wide, and had straight margins, the outer one having a second layer 3 feet wide, retired somewhat so as to leave a scarcement of about 6 inches. The component stones were of moderate size, flat, 4 inches thick, undressed on the surface, but the joints hammer-dressed so as to fit each other carefully, the margins of the layer hammer-dressed straight. The stones lay on red earth, such as the rampart was composed of; there was some clay over them. The work closely resembled polygonal pavements in the interior. This substratum of stones lay 16 feet back from the edge of the first trench, and 11 feet in front of a stone kerb, which formed the edge of what appeared to have been a terrace in rear of the stone layer, which terrace, along with its kerb, had become covered and completely concealed by the rampart and its silt, and subsequently by a surface terrace of earth (dark brown on the section). The structure of the kerb was peculiar (Plate II., enlarged plan and section). It consisted of two rows, about 6 inches apart, of single, large, flat, rectangular stones, standing 2 feet high on their long edge, set end to end, some of them as much as 5 feet in length, the space between the rows being packed with stones and some earth. The top of the kerb was on a level with the stone layer under the rampart, and was 18 inches above some remains of pavement in its rear. This kerb was traced for 45 feet, ending westward at the N.W. angle, and eastward in a little square recess, the sides, back, and bottom of which were of single flat slabs, each about 2 feet square. It was sunk in the substance of the terrace, the bottom being on a level with the base of the kerb, the open front flush with its face, and the arms rising a few inches above its top. The arms or sides

were notched as if for the suspension of vessels ; charcoal was found on the bottom and near it. Although the peculiar neat kerb ended at the square recess, the edge of the terrace continued to be marked all along the rear of the north rampart by a rude or ruinous stone work, and at one place east of the entrance a piece of the same peculiar kerbing was met with, though not so neatly done, and only 1 foot high. There was no sign of such a terrace, if it be one, on the east and west sides.

3. Section F G was made on the west side, about 35 yards from the N.W. angle, but was not carried through to the outside. A quantity of stones were found under the rampart, towards its inner side, perhaps the remains of a longitudinal wall, but they were confused, and showed no definite structure or arrangement. A drain crossed this space obliquely under the centre of the rampart, the cover being 5 feet below its top.

4. Section H J, also on the west side, and about 33 yards south of the last, was carried right across the rampart, and revealed under its centre a layer of stones $19\frac{1}{2}$ feet wide, with well-defined and straight margins, and having a 2 feet wide second layer on the outer margin, forming a scarcement as in C D, but the stones, instead of being flat, were rough unshaped rubble, placed by hand however, not tumbled. They rested on clay and earth, such as the rampart is made of. In rear of the stone layer, and at a higher level by some feet, was a broad line of tumbled stones, without any structural arrangement, like what was found in F G and in line with it.

5. Section K L, in the very middle of the N.E. angle, was carried from the inside to the centre of the rampart, to a depth of several feet below the original level of the ground, in search of foundations of a tower, such as is often found in the angles of Roman forts, although there was no indication of one on the surface. Nothing was found but a confused mass of unworked stones, some of great size, going to a considerable depth below the original level. In one place pretty high up in the rampart there were the remains apparently of a large drain, with a triangular cross section, but it could not be traced through the rampart. This corner had evidently been opened up and filled in again at some previous period.

6. Section M N, on the east side, 20 yards south of the N.E. angle, was carried across the rampart to its centre ; but as there had been great disturbance, it need not detain us.

7. Section O P was made 16 yards south of the last, and was similar to it in extent outwards, but was not carried down to the original ground-level. Near the top of the inner slope of the rampart, a few inches below the surface, and probably about 4 feet above its base, a piece of pavement was found, $4\frac{1}{2}$ feet long and 3 feet wide, composed of seventeen thin, flat, polygonal stones, varying in size and shape, but fitted with perfect accuracy : from the irregularity of its margins it was evidently fragmentary. Perhaps it had extended inward 6 feet further to a kind of kerb, 3 feet in rear of which and a foot lower was the apparent continuation of a small covered drain found at the N.E. corner. This drain was $4\frac{1}{2}$ feet in front of and 2 higher than the foundation of the building marked XXVI. on the plan, Plate I.

8. Section Q R, 36 yards farther south, again revealed under the centre of the earthen rampart a layer of polygonal stones, with a straight inner margin, but the excavation was not carried far enough to show the outer margin. As far as opened it much resembled the layer in C D, but it rested on a stratum of a black material 6 inches in thickness, the nature of which was not ascertained. In its rear were uncovered the remains of two walls, parallel to each other, 8 feet apart, and running at right angles to and deeply into the substance of the rampart. They were in good preservation, and built of the same kind of masonry as the foundations in the interior. One of them was 8 feet long and $2\frac{1}{2}$ feet high, and appeared to have had a door at its inner end, facing along the line of the rampart southwards, and admitting to the space between the two walls. This was unpaved, but the basement on the other or south side was cobbled. This cobbled space was bounded in rear by the apparent continuation of the drain already mentioned, and another deeper drain ran obliquely across the 13-foot-wide space between the buttress of building No. XV. and the first-named drain.

9. Section opposite XXX., 7 yards south of the last. This section was wider than the others, and was carried to within 8 yards of the central point of the eastern entrance, which had previously been opened

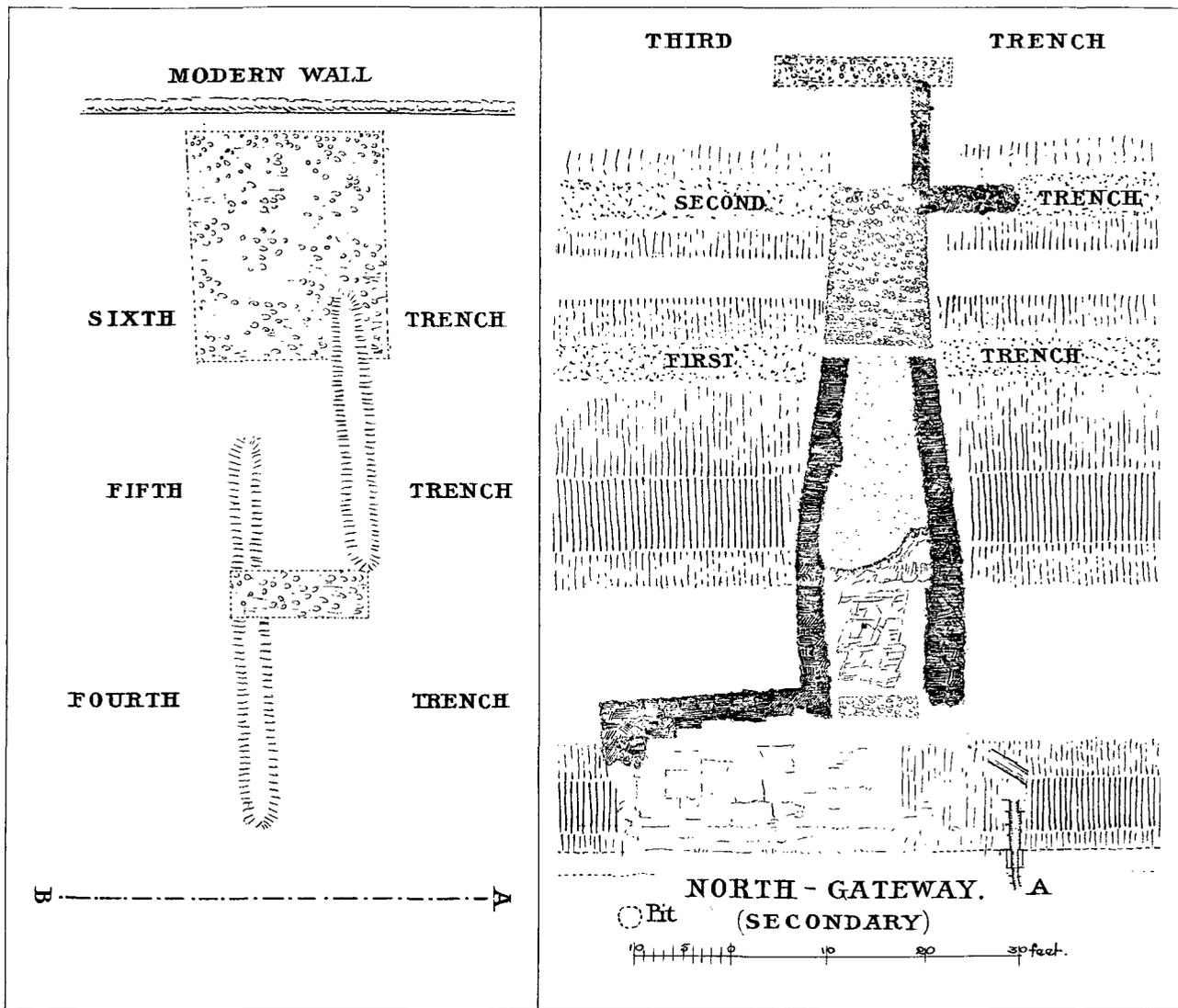
up and found to be utterly destroyed. The inner slope of the earthen rampart was entirely removed for a length of 12 yards, disclosing the basement of what had evidently been a row of four ovens, in contact with each other, connected in a common structure, but each having its own circular interior facing still a foot high in a few places, enclosing a paved floor $5\frac{1}{2}$ feet in diameter, with a narrow opening, 2 feet wide, towards the interior of the station. A great quantity of charcoal was found opposite these openings, and the floors of the interiors were blackened with it. No remains, not even loose stones, of the presumed upper domed chambers existed. Mr Barbour found that the ovens rested on a layer of clay concrete, below which was gravel and then greyish clay, the three layers being 3 feet thick, before coming to the till. The row abutted on a layer of stones, once more found beneath the centre of the rampart. This time, however, the layer was only $12\frac{1}{2}$ feet wide, and consisted of round cobbles, 6 to 9 inches in diameter, passing northwards into a pavement like that in C D and Q R; its margins were straight, and the inner one was in direct line with that of the polygonal layer in front of the two walls in section Q R. It was slightly tilted upwards at the outer margin. Mr Barbour suggests that the space intervening between the ovens and Q R (which was not excavated), and probably more, may have been honeycombed with cellars, and that the accommodation for the preparation and cooking of food, of which no indication was met with in the interior, was here provided.

In regard to the structure of the earthen rampart itself, certain alternating bands, marked by differences in colour and consistency, were seen in the sections, which, although interrupted and irregular, could hardly be accounted for by natural changes; and Mr Barbour, after careful examination, concluded that layers of earth, clay, sods it may be, and brushwood had been used in the construction at least of the central part. The brushwood was evidenced by horizontal groups of black spots resembling charcoal, amidst which the remains of twigs, some of them thicker than the finger, were found.

Entrances.—*The north entrance*, as it appeared before excavation, passed straight across the trenches, on a level with their tops, and on reaching the rampart, here much broken down, passed over rather than

through it by a gentle ascent. The passage as it crossed the trenches was about 15 feet wide, including remains of mounds bordering it on each side, which proved to conceal fragments of walls. These walls if complete would probably narrow the pathway to 9 or 10 feet, but it seemed to contract as it approached the gateway to about 6 feet (Plate III. figs. 1 and 2). Of the gateway little more than a single layer of stones remained, unworked, of irregular size and shape, but well fitted, bounding a somewhat oval-shaped space 38 feet in length, 6 feet wide at the outer end, about 9 or 10 at the inner end, which was more broken down, and perhaps 11 where widest. From the inner end, at its west side, a wall ran at right angles under and on the inner side of the earthen rampart, but not far from its centre, for 25 feet, turning southward again for a few feet more, where there seemed to be remains of a pavement. At this angle it was 5 feet thick. A few yards south of this was the mouth of a little cylindrical pit, about 2 feet in diameter, and bored through the hard till to a depth of 6 feet. It contained nothing but earth. The only stonework about it was a flat slab, resting on a little wall of stones on each side, placed on the edge of the mouth towards the interior of the station. The roadway, across the trenches, over the rampart, and through the station, seemed to be surfaced with earth and river gravel, in some places a foot in depth, beneath which, at one or two points where it passed the trenches and rampart, a quantity of stones lay, which may have been remains of a causeway, but this is doubtful. The Plan (Plate III.), besides these points, shows remains of a wall in the second trench, difficult to explain, and emerging from beneath the rampart the fragment of a drain, at A, the relations of which could not be ascertained.

As the entrance through the rampart appeared to be at too high a level to be the original one, besides being of a form unknown in Roman stations, it was removed, and nearly 3 feet lower another entrance of a totally different character was discovered. Unfortunately, owing to an invasion of water, it could not be thoroughly excavated, but two straight parallel walls, 30 feet long, 3 feet broad, and 1 or 2 feet high, could be made out, standing 5 feet apart. They extended so far outwards as to partially flank the first trench, and were in line and on the same level



with the remains of walling already described that margined the passage across the trenches.

West Entrance—(Plate I).—The gateway excavated here was on a level with the bottom of the rampart, under its central and highest part. Like the lower north gateway, it consisted of two straight parallel walls, but they were 10 feet apart instead of 5, and were only 16 feet long instead of 30. Their width was about 4 feet. The remains were only from a foot to 18 inches high, and rather ruinous, but where best preserved the masonry was good, the stones, of various sizes but generally small, being squared, and well fitted in bonded courses. There was a projection of a few inches inwards from the outer end of the south wall, and outwards from the inner end of the north wall, as shown in the plan. There was no causeway or other characteristic feature connected with this gateway.

East Entrance.—No trace of a gateway was found here.

If there ever was an entrance at the south end, it has been entirely carried away by the erosion of the bank already spoken of.

Let us now examine the bearings of these results on the question of the origin of the defences, whether they are of more than one period, and whether there is evidence of a stone wall having primarily environed the station. Much depends on the signification of the stone substratum at the base of the rampart. Is it an integral homogeneous part of the rampart, or the remnant of a wall upon which the earthen rampart was subsequently reared? Perhaps the best means of forming a judgment is to marshal the circumstances that seem to bear in one direction or the other.

In favour of the primary existence of a wall there is:—

(1) The consideration that the stations in the North of England are believed to have had stone walls; and that all those of the German "Limes" had either a simple wall or one acting as the revetement of an earthen vallum; and there seems no reason why, in a stony neighbourhood, such as that of Birrens, an earthen rampart without a revetement should have been exceptionally used.

(2) The presence of carefully arranged stonework at the base of the

rampart, the purpose of which, in an earthen rampart, is not easily understood.

(3) The absence of the stonework in some parts and variety of its character in others, which seem more compatible with a ruined than a finished work.

(4) The existence apparently of a terrace in rear of the stone layer, and on the same level with it.

On the other hand, it seems in favour of the stone layer having been a homogeneous part of the rampart :—

(1) That there is also a stone substratum in the vallum of the Antonine Wall. This fact mentioned by Horsley in 1730 was amply verified a few years ago by the Glasgow Archæological Society, but their results have not yet been made public, so that an exact comparison cannot be made. I am informed, however, that the layer in the vallum has not the regular construction of that at Birrens; but this may have been thought unnecessary, where the rampart was built of sods instead of the less firm materials used at Birrens.

(2) The construction of the layer. Undoubtedly the variety in the construction of the layer, and its total absence in some parts, seem to favour the theory of a ruined wall, but the argument goes quite in the other direction when we consider the characters most frequently found: (*a*) the pavement-like character of the layer, which gives it such a strong resemblance to the polygonal pavements of the interior; (*b*) the fact that it rests, not on the admirable kind of foundation used for the interior buildings, described by Mr Barbour, not always even on the till, but upon made earth, as it seems unlikely that the builders would give a less secure foundation to the defensive wall than to the interior buildings; (*c*) the regular width of the second course of stones and of the scarcement, which could hardly result from dilapidation, and, as well as the tilting up of the cobbled layer in the section opposite XXX., may be explained as intended to counteract the tendency of the rampart to slip forwards, due to the surface of the till on which it stands sloping towards the trench: all these are facts that militate strongly in favour of the homogeneous nature of the whole rampart as it now exists.

(3) The great width of the layer, amounting to 19 feet in one part and 16 in another, whereas very few of the walls in the station of the "Limes" exceed 6 feet, and then only slightly.

(4) The width of the *berme*, which, with a wall erected on the stone layer, would be 16 feet, whereas in the "Limes" stations it rarely exceeds 6.

(5) The construction of the earthen part of the rampart in layers of different materials is compatible with both the theories, as it might either be erected over the remains of a wall, or over a special foundation of its own; but it is important to observe that, in the lower part at least, the earthen rampart cannot have been disturbed since it was originally raised, as otherwise it could not have retained its stratified structure; and as the stratification extends beyond the outer margin of the stone layer, nearly to the edge of the trench, it seems unlikely that the present vallum could have been the backing of a stone wall or revetement.

Let me now endeavour to reconstruct the defences on both theories:—

(1) If a stone wall existed originally, we should have it standing in front of a terrace 11 feet wide, raised 18 inches above the original level of the interior; and if one or more of the trenches existed at the same time, there would also be a *berme* 16 feet wide in front of the wall.

(2) On the supposition that the rampart as it stands was originally a homogeneous work,—being stiffened by its stone foundation and its own composition in layers, including clay and brushwood,—it might stand at a steep angle and leave space both for the terrace and *berme*, although they would no doubt be narrower than if they were appanages of a stone wall. It would seem probable, at all events, on the theory that there never was a stone wall, that the terrace was designed along with the earthen rampart; otherwise it is difficult to account for its presence along with the rampart at all. On the other hand, there is a sudden diminution in the steepness of the inner slope, where it now covers the whole terrace (Sections A, B, C, D, Plate II.), which looks as if it were designed to give easy access to the top; and there seems no reason why the terrace should have been constructed only to be covered up again. That this gentle slope was really designed to give easy access to the top

is confirmed by the similar arrangement met with at the stations of the "Limes" (von Cohausen, *op. cit.*).

As to the trenches, it is evident, I think, that the soil dug from them was not heaped up to form ramparts between them. Probably it was utilised for the great interior mound, which would thus be coeval with them; at the same time, there is no reason why they might not have been in connection with an earlier stone wall of defence, if such there was.

It will be seen in section C D (Plate II.), and still more distinctly in A B, that the superficial, and therefore most recent, layer, tinted dark brown, corresponds with the terrace (not to be confounded with the deeper one just described) represented in Roy's plan in rear of the rampart, on all its three sides, but only visible to us on the north side. The composition of this was found to be the same as that of the surface of the interior generally, immediately beneath the sod,—a mixture of soil, with a great quantity of broken angular fragments of stone. It must be confessed it is not easy to explain the formation of this terrace, apparently in comparatively modern times, after the complete destruction and dilapidation of the station, unless it was merely caused by shovelling the earth aside in a general search for stones in the northern half of the station.

On the whole, although the evidence from structure is insufficient to determine decisively whether the station was originally defended by a stone wall, on the ruins of which a rampart of earth, sods, &c., was subsequently raised, or by the rampart with its substratum of stone, as we at present find it, the latter supposition seems to me the more probable of the two.

In any case, if the earthworks were secondary to a stone wall, it is unnecessary to conclude that they were not raised by the Romans. It is true, I do not know of any proved example of a Roman station in Britain defended by earthworks alone, unless we accept Birrens as one, although, probably enough, some of those attached to the vallum of Antonine were so. Unfortunately, almost all of these have been destroyed without any proper record; and the defences of Rough Castle, the only remaining well-preserved one, yield an uncertain testimony, as,

although apparently of earth on a surface view, a considerable amount of stonework was found in an exploratory and unrecorded cutting made a few years ago by Messrs M'Luckie and Buchanan of Falkirk. But as the rampart of the vallum was practically earthen founded on a layer of stones, there is no reason why the Romans should not have adopted the same plan in a fortified station.

Having shown that there is no apparent reason why the Birrens earthworks, whether they be of primary or secondary origin, should not be Roman, it remains to inquire whether there is any proof of their having been raised by a different race. Suffice it to say on this head, that the only evidence from their structure tending in that direction is the oval form of the higher level entrance at the north side (Plate III.); while against this we have to place the fact that multiple trenches without intervening ramparts are unknown, as far as I am aware, in native fortresses.

I have not been able to attach much importance to the position of "finds" in endeavouring to determine the period of the rampart, because it was not practicable to record their location with the precision so much required to steer clear of erroneous deductions. It may be stated generally, however, that all the pottery found in connection with the rampart was of Roman or Romano-British or Gaulish type, and did not differ from that abundantly found in the interior. The great mass of it lay either in rear, alongside, or below the top of the kerb of the rampart terrace, or in the earth immediately above the terrace near the kerb. A quantity was also found in connection with the secondary north entrance, and the foundations running westward from it deeply under the rampart.

Considering the apparent structure of the rampart in layers of earth, clay, and brushwood, it was unlikely that pottery in any quantity should be found there, and accordingly but one piece was discovered in that situation. It was in cutting C D on the north side of the rampart, but near its centre, and about 5 feet below the surface. The only other stray "find" was two pieces of pottery a few inches below the surface at the top of one of the mounds intervening between the trenches. I do not think any importance can be attached to

finds like these, the deposit of which may have been incidental either to primary or secondary operations.

Finally, with regard to the rampart, it must be remembered that but a small part was opened, and that, had the whole been excavated, its history might have been better understood. This we were precluded from undertaking by the magnitude of a task involving the removal of a mound nearly 600 yards long, from 40 to 50 feet wide, and 6 to 8 high in the middle.

It may be thought that my description of the defences has been unnecessarily full; but my aim has been the better to draw attention to the insufficiency of our knowledge regarding works of the kind, and to show that they may conceal much that requires and deserves careful investigation, the lack of which in the past has caused the endless misconceptions which must haunt all attempts to describe objects before the most elementary knowledge of their structure has been obtained.

The last act of our performance was to fill in the trenches we had opened up, and to restore the station to the condition in which we found it. This was in accordance with our agreement, but even from an archaeological point of view it seemed the most advisable course. To have laid permanently open to the eye an intelligible view of the place would, no doubt, have been most interesting, but this implied the wheeling away of an enormous amount of undisturbed earth, as nothing less than a universal excavation to the level of the bottom of the foundations would have sufficed for this purpose. For, after all, but a small proportion of the ground had been opened in following out the walls, and in our limited clearings in the interiors of a few buildings; and the mere removal from the station of the earth thrown up from our trenches would have given no view of the foundations, or the slightest notion of the plan of the place. All the information to be got would have been only of details; by peering down into our trenches. Besides this, there was the further objection, that as the mortar had disappeared from the walls, exposure to the weather and to the rough usage of holiday visitors would soon have brought them to nought. The only way to preserve them, in fact, was to cover them up again.

In concluding this general sketch of our investigations it should be

noticed, that although large portions of the interior and still more of the rampart have not been touched, if at any time excavations should be renewed, the excellent plan made by Mr Barbour will show exactly the parts that remain to be explored. Even if the work should not be carried any further, however, the results already obtained have been so interesting and so important as to encourage the Council of the Society in a design to undertake excavations at other important sites, both Roman and native, and thus to continue a line of inquiry which I believe more urgently demands attention, and is more likely to yield valuable results at the present time than any other branch of Scottish archæology.

II. THE INTERIOR BUILDINGS AT BIRRENS. BY JAMES BARBOUR,
F.S.A. SCOT., ARCHITECT, DUMFRIES. (PLATE IV.)

The preceding plan (Plate I.) exhibits the remains of streets and buildings covering the interior of the station, the depth of earth overlying them varying from 1 foot to 4.

The preparation of the plan was attended with some difficulty, owing to the denuded and disturbed state in which the remains were found. The walling had disappeared entirely at some places, and elsewhere it was not always easily distinguishable from *débris*. On the whole, however, the lines have been well ascertained; and, while many division walls, as well as all the doors, windows, and other details, are wanting, the several buildings as to their outline have been traced almost to completeness, with the result that the general disposition of the station is fully displayed.

The walling actually exposed is mostly indicated by black tinting, its continuation in the spaces between the openings being marked in purple. It is found that work of two distinct periods exists; and where that which is secondary has been differentiated, and where it does not cover the primary, it is indicated, so far as opened, by blue tinting. Secondary work, however, as will afterwards appear, exists to a greater extent than it has been found convenient to indicate on the plan. The red tinting shows the position of walls of which little or no remains exist. The lines, however, are conjectural only to a very limited extent, as in every

instance evidence more or less conclusive of the situation occupied was found.

The station is imperfect, a small portion at the south end having been carried away; and owing to this, and the absence, for the most part, of dividing lines between the interior and the ramparts, perfectly exact and definite measurements of the area cannot be obtained. The measurements over the buildings, however, are 500 feet from north to south, and 300 feet from east to west; and allowing a space outside the buildings all round 10 feet in width, the dimensions of the interior of the station when complete would be 520 feet by 320, and the contents would extend to almost 4 acres.

The plan shows a principal street crossing from the east gateway to the west, and another leading from the north gateway to the south end. The former divides the station into two unequal parts, the south one embracing two-fifths and the other the remaining three-fifths of the area. The latter is intercepted and divided north of the crossing by a central building (XII. on Plate I.). A line drawn along the middle of the street would pass through the centre of this building, and divide the camp into two equal parts, and the arrangement of one is almost a counterpart of the other.

No minor streets are found in the southern division, but eavesdrops intervene between the different blocks of buildings. In the north division there are three subsidiary streets running from the east side to the west, and crossing the main north and south line, but some of them seem to have been partly blocked by walls. Eavesdrops alternate with these.

The disposition of the buildings exhibits design in the grouping according to the several purposes they were intended to serve; and those conjectured to be meant for administrative and other more special ends occupy the main street between the east and west gateways. The position in this group of the central building (XII.) already referred to, and the way in which it is isolated by the street on all sides, gives to it a special prominence, and in regard to arrangement and detail it is also probably the first in point of interest. The walls are 2 feet 10 inches thick, strengthened with buttresses. In the south one is the entrance

gateway, still showing marks of the scuntions, and two stone-stops remain in position, against which the gate would close. This leads into an open court, floored with characteristic irregular polygonal pieces of stone fitted together, and provided with a drain all round for carrying off the surface water. At the west side of the court is the public well, yielding water for the supply of the station. It measures 18 feet in depth and 4 feet 4 inches diameter, and is built of dressed stones in regular courses, and the bottom is paved with cobbles over a bed of well-tempered clay. On the east and west sides of the court was a narrow apartment, and on the north a verandah, supported on slender pillars of wood or iron, and an arcade of seven bays behind it, had extended across the building from east to west. Remains, partly *in situ*, partly in fragments lying on the pavement, prove that square piers, with splayed bases and moulded caps, had separated the bays, and that they were spanned with arches, closed with thin projecting keystones.

Passing through the centre bay, which is a little wider than the others, a full width space is reached, and communicating with it at the north end of the building is a series of chambers, five in number. In the floor of the centre one is a pit 5 feet deep, approached by descending steps. The walls are formed of large stone flags set on end, and remains seem to indicate that a parapet, finished with a moulded cope clamped with a continuous bar of iron, rose above the floor. Some grain and a quantity of fragments of window glass were found in it. The floor of the chamber west of the central one shows a square sinking about 3 inches deep, in the centre of which some kind of pedestal has stood, and the surrounding pavement is worn with use, mostly at one side. The two flanking chambers of the row also show square blank spaces in the centre of the flag floors.

Comparing this building with the corresponding one shown on the plan of Chesters, and named the Forum in Bruce's *Hand-Book to the Roman Wall*, it is found that the same number and arrangement of chambers obtains in both, and only in one respect is there any material difference. At Chesters the aspect is towards the north; here it is southwards.

The next building eastwards (XIII.) is enclosed by walling 2 feet 6

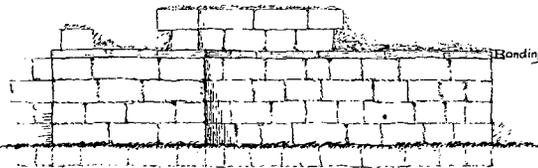
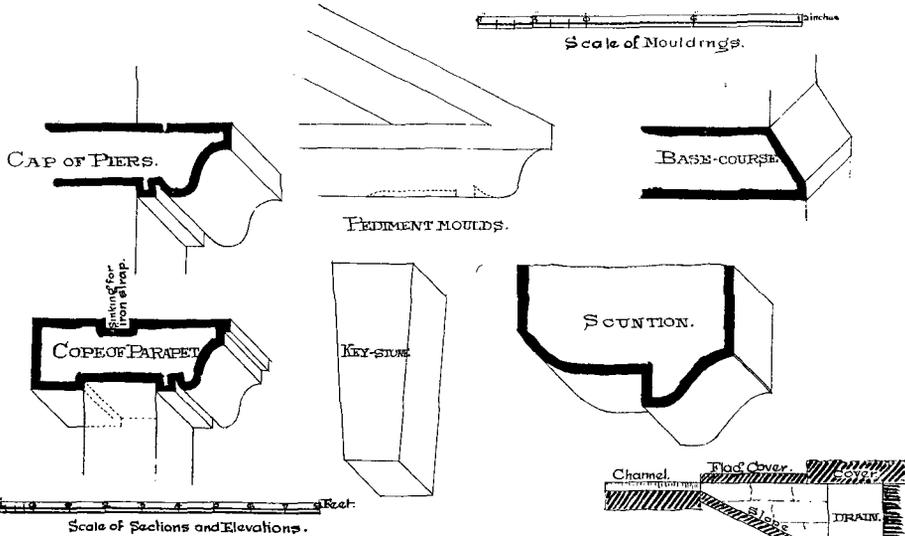
inches thick, strengthened with buttresses, but no division walls have been found, and it and those numbered IX. and X. do not present any particular distinguishing features.

No. XIV. is the bath. There is a hypocaust, with pillars for supporting the floor, a furnace door, air duct, flue, and drains, and a well for the supply of water. The well is 4 feet square at the bottom and 12 feet deep, and it widens out somewhat at the top, becoming nearly circular on plan. The walls are rudely built of undressed stones over a square oak frame. The remains of an oak ladder, chips of pottery, and some shoe leather were found in it.

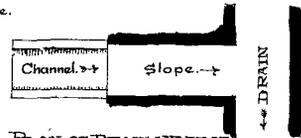
Nos. XI. and XV. are of a class peculiar and distinct. The narrow form, the great thickness of the walls (3 feet 8 inches), and the numerous heavy buttresses, leave little room for doubt that these buildings were spanned by vaulted stone roofs. The floors, in order to be dry, were raised on walls, with air ducts between them. A quantity of calcined wheat was found in number XI., and probably the buildings may have served the purpose of food stores.

The opposite frontage is wholly occupied by two large buildings, numbered respectively IV. and VIII. on the plan. The latter is peculiar, inasmuch as it exhibits partition walls separating the area into house-like apartments. Unfortunately, owing to the lines being incomplete and the want of indications of doorways, the connection of the several spaces is not clear. The former (IV.), judging by its dimensions and general character, would appear to have been one of the most important buildings in the station. The only exterior wall of which substantial remains exist is the front one. It is of superior workmanship, 2 feet 10 inches thick, and buttressed. There were fifteen heavy buttresses towards the street, each showing a projecting base, finished with splayed and neatly hewn top course (Plate IV.); a thick wall, crossing it from north to south, divided the building in the centre; and the floor was raised high above the ground, and supported on walls forming intervening ducts for the distribution of air, possibly heated, soot being found in them.

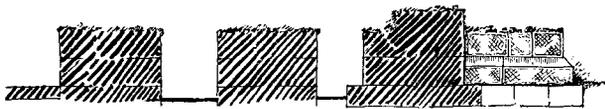
The west end of the building recedes a little from the line of the north and south street, forming a sort of square, just in front of the



ELEVATION OF WALLING AT NORTHWEST CORNER OF BUILDING, XI.

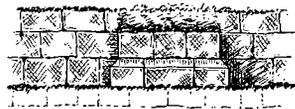


PLAN OF DRAIN-INLET AT END OF LEAVES-DROP SPACE of a.



SECTION OF WALLS AND DUCTS OF BUILDING, IV.

SIDE OF BUTTRESS.



FRONT OF BUTTRESS.

BIRRENS ROMAN STATION, DUMFRIESSHIRE.

Forum. In this recess there is a stone plat, measuring 5 feet each way, and raised a step above the level of the street. At one place it is much worn, as if by the movement of the feet,—the mark, it may be, where the sentinel in charge of the standard stood.

Other buildings in the station may be classed in three groups. One embraces the large blocks I., II., and III. in the south-east area, stretching between the longitudinal street and the east rampart. So far as has been discovered, these were undivided. Being separated only by eavesdrops 2 feet 6 inches in width, the doorways would, it may be presumed, be in the end walls, and whatever light there was would probably be admitted at the roof. Another group consists of corresponding buildings V., VI., and VII. in the south-west space. They are differentiated by longitudinal division walls, one in each. All the buildings in the north part of the camp, XVI. to XXIX., comprise the third group. The northmost, east and west of the longitudinal street, appear in some respects to be exceptional, but the others exhibit uniformity. Very narrow as compared with those in other parts of the camp, being only 16 feet wide with a length of 136 feet, ranged in pairs back to back, with intervening eavesdrops and full-length street frontages, they are each divided into several apartments; and the cross walls, so far as exposed, indicate much similarity of division in the several blocks.

In regard to the condition of the walling, while, as previously mentioned, the masonry is entirely gone at some places, generally the footings, consisting of one or two courses of stones, remain, much of the work being in fair condition, although in part disturbed and broken. A few pieces rise to a greater height, as part of the front wall of No. IV., with the buttress and dwarf walls, and fragments of Nos. XII., XIV., and XV., which show three and four courses; and the north wall of XI., the highest, rises eight courses of stones above the foundation.

The walls, as before indicated, belong to two distinct periods. Evidently the original buildings had been destroyed and razed. "There shall not be left one stone upon another that shall not be thrown down" represents something like what appears to have happened over at least a great part of the area; and the place continued waste for a lengthened interval, until the earth accumulated and covered out of

sight the underground footings, which escaped. When occupation again took place, the buildings were reared of new. A large proportion at least of the old foundations were left unsearched for and unused, and the new walls were run up, of inferior workmanship, upon the accumulated soil. Over great part of the north-east and north-west sections, and at some other places also, footings of both the primary and the secondary walls remain, the latter being sometimes over the former, or partly so, but more commonly, one runs alongside the other. Much of the walling, however, cannot be discriminated as belonging to one class or the other; and on this account, and as the lines sometimes coincide, the general tints on the plan probably embrace a considerable proportion of secondary work, which it has not been possible to show in its proper colour.

In the course of the erection of the secondary buildings, or afterwards, a few variations of the arrangements appear to have been effected. Such, probably, are the narrow apartments on either side of the court of the Forum, the blocking in several of the openings of the arcade, and the central enclosure in the space behind the arcade, tinted blue on the plan. The secondary walling of the bath, tinted blue, stands on the original foundations, except the piece overlapping the building on the west, which it is evident must be a departure from the original. The walls blocking some of the subsidiary streets probably represent changes also. Nevertheless, the reconstruction works appear to have proceeded practically according to the old lines; and it is remarkable, considering that the primary footings in the north parts of the camp were undiscovered, that the secondary buildings rose up of the same form and dimension as before, and in point of situation varied only to the extent of the thickness of the wall or less,—a circumstance which seems to imply that the station was probably a fixed and constant type. The design, it is presumed, would be prepared at headquarters, and issued to the officers whose duty it would be to see to the carrying out of military works of the kind, wherever they might be required.

It will be observed that the plan is strikingly compact. The south-east and south-west sections, but for the narrow eavesdrops, present each a solid covering of buildings. In the central section, excepting

the passages on either side of the Forum, the buildings are almost solid, and being turned endways towards the street, frontage is economised. The north sections are less closely built, but nowhere is there redundancy of space; and the ovens described by Dr Christison and other structures admitting of it, which must otherwise have encroached on the interior, were embedded in the body of the rampart.

The plan is characterised also by symmetry, exemplified in the uniformity and balancing of the parts. It is believed, and on good grounds, that the Romans rested the proportion of their edifices, not only as regards the elevation and sections, but the plan also, on the *square*; and the method would seem to apply to, and explain, the Dumfriesshire station.

The dimensions of the sides, 500 feet and 300 feet respectively, are divisible by 100; and this bisected in order to obtain central axes, divides the longer sides into ten, and the shorter into six equal parts (fig. 3). Lines extended along and across the plan from these points, mark it out into squares, sixty in number, and the importance lies in the coincidence of the lines with the divisions of the camp. The plan thus marked shows five well-defined sections, separated one from another by the main streets, and it is found that each of them contains twelve of the sixty squares. Therefore the areas are exactly equal one with another; and four of them correspond also in form and dimensions. In regard to the lines: No. 3, from the east, the major axis of the camp, marks the longitudinal street, and passes through the middle of the Forum; No. 4, from the south, supplies a reason, not otherwise obvious, for the position of the main cross street; No. 5, the minor axis, again passes through the Forum, proving its central position; and No. 6 marks the street north of the Forum. Four divisions remain at the north end, balancing a like number at the south. It will be observed also that the lines numbered 7, 8, and 9 so nearly correspond with the eavesdrops, that it seems probable that was intended, thus embracing in every division a subsidiary street, together with the buildings on either side.

Is it probable that all these coincidences are accidental; or is it not much more likely they are the outcome of purpose and method? "Wherever," says Josephus, as quoted by Gordon, "the Romans enter

upon hostile ground, they never think of fighting till they first make their camps, which they do not rear up at a venture, or without rule."

The constructive methods exhibited are interesting, being in many respects in contrast with those now in use. The formation of the streets does not bear out the common conception of a Roman road. Generally, it consists of a thick bed of gravel, hard and well bound together. The crown is well raised, and the gravel formation is re-

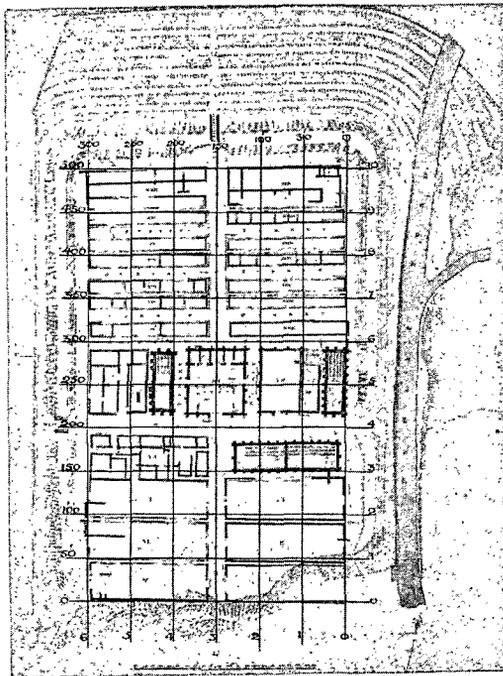


Fig. 3.

tained at either side by means of two courses of stones, laid flat, one over the other; and outside these are the water-channels, composed of stones 18 inches broad, and in lengths of 2 feet to 4, having the gutters

about 9 inches wide and 4 deep, cut with a square section out of the solid. In the case of the subsidiary streets only one line of gutter, placed at or near the centre of the roadway, is found. At several points continuous channelling of this description remains *in situ*, several stones in length.

The surfacing of the northward portion of the longitudinal street is different, for, over a similar bed of gravel, it is paved with whinstone cobbles, but the work is much disturbed. At a depth of 12 inches another similar surfacing is found, the cobbles used being somewhat larger. In this case, however, the water-channel is in the centre of the roadway, and is composed of a flag for the bottom, with the sides constructed of stone kerbing. This latter formation rests on forced ground about 18 inches deep; the streets towards the south rest on the natural till.

The water-channels of the higher formation would thus seem, as regards position at least, to be secondary, and it may be that the workmanship also is to be assigned to that period.

The floor pavements in the camp are of several sorts. Within the buildings examples made of squared and dressed freestone flags, such as are in use now, are found. But the most common kind is the irregular polygonal pattern, patches of which are found in all parts of the area. It also is composed of freestone flag, but in small pieces, and the joints, instead of being hewn, are hammer-dressed, so as the pieces may fit together on all sides.

Numerous drains traverse the camp, of various dimensions and depths, but it is not ascertained on what system they are disposed. Near the south end of the longitudinal street, one is found 8 feet in depth, measuring from the surface to the bottom. The drain itself is 3 feet 6 inches high and 16 inches wide, and the sides are built of rubble without mortar. The course of a drain between the east rampart and the adjoining buildings, numbered I., II., III., and IV., is indicated on the plan, and in connection with it there remains *in situ* a curious inlet, consisting of a piece of open channelling similar to that found at the sides of the streets, but of greater breadth, and a built hopper with sloping flag bottom and flag cover (see drawing, Plate IV.). It is opposite

the eavesdrop between Nos. II. and III., and doubtless the channelling would extend the whole length of the eavesdrop, for the purpose of carrying off the water falling from the roofs of the buildings.

A characteristic method of preparing the foundations for the reception of the walls prevails. A trench is cut in the ground 9 inches deep or more, and of a width a little greater than the thickness of the intended wall, which is filled with well-tempered clay. The surface of the clay is paved with whinstone cobbles, accurately marking out the situation of the walls, even to the width and projection of the buttresses; and the pavement is beat into the clay, the substance being thereby consolidated and rendered suitable for the support of the superincumbent masonry. It is an excellent foundation; and its use, on account of its permanence, proved of much service in tracing out the plan.

The footings usually project, forming scarcements on each side of the wall, but not always; and for the lowest course of stones, and mostly the second also, or what of the wall would be lower than the surface of the ground, instead of lime mortar, clay is used for bedding and jointing. The work is exceedingly good, every crevice closed, and the whole a solid mass. Whether this method was followed with the view of protecting the walls from rising damp, or because it was thought better adapted to the circumstances, the work being in contact with the earth, than lime mortar would be, the result is, that now, after the lapse of so many ages, these footings, so built, where undisturbed by force, are yet in perfect order, whereas the lime mortar used in the overwalling has been wholly absorbed by the accumulated soil.

These methods of constructing the foundations and footings are peculiar to the primary walls.

The walling discriminated as secondary, is characterised by inferior workmanship; and the primary parts vary in quality, particularly in respect of the manner of dressing the facing-stones. The materials used are the freestone of the district with lime mortar. Limestone is abundant in the vicinity, and the traces of it in the walls, although meagre, sufficiently establish its use. The facing-stones of both sides of the primary walls are headers, squared and arranged in regular courses, generally 6 inches to 7 inches high, and in lengths of 9 to 18 inches,

and the centre is closed with stones fitted in between the headers. As showing the excellence of the work, it may be mentioned that in the case of No. IV. even the dwarf walls are so built.

Some specimens of bonding found are typical. One consists of free-stone flags about $2\frac{1}{2}$ inches thick laid in the wall, so as to extend across its thickness and form a continuous course in its length. The best example remaining is in the north wall of No. XI., where it forms the seventh course above the foundation (see drawing, Plate IV.). Bonding bricks appear also to have been used, for, although not found in position, numerous fragments of such are scattered about.

The manner of dressing the stones exhibited is various; generally the inside faces of the walls are scabbled, and in many cases the outside faces are similarly dressed. The dressing of the external face of the front wall of No. IV. is the most characteristic. The stones show diagonal lines forming a reticulated or diamond pattern of half-inch to inch mesh within a chiselled margin. This wall is of superior and artistic workmanship, and the great care bestowed on it is doubtless due to its prominent position in the main street. Appearance being less essential in other localities, less elaborately dressed work is made to suffice.

It now only remains to notice briefly how far architectural treatment is indicated by the vestiges. That appearance was an element in the design is sufficiently attested by the use of superior and more elaborately dressed masonry in the most prominent situation—the main street. From this, too, it may be deduced that the great display of buttresses, with their splayed and neatly hewn base course, while intended chiefly to secure strength, were probably likewise utilised to promote architectural effect. The arcade of the Forum already described is an architectural feature, and a variety of fragments remain indicative of the existence of others, and of artistic surroundings. There are a piece of moulded parapet coping, pieces of pediment mouldings, a moulded scuncheon of an opening, walling-stones marked with beautifully finished herring-bone tooling, stone floor tiles marked into squares of an inch by the chisel, and fragments of a number of wall panels, variously enriched. All this attests the application of architectural treatment: and the type is

determined by the mouldings (Plate IV.), which are of Roman form. It should be mentioned that a fragment of a roofing-tile and pieces of window-glass were also recovered.

Thus the station is discovered to have been laid out according to rule, and with a view to symmetry, utility, and convenience. The structural methods are thoughtful and purposelike; the earlier workmanship displays skill, taste, and care; and strength and endurance characterise the buildings, while they were not devoid of architectural design and adornment.

Nothing has been found recognisable as a mason's chisel, but the tooling on the dressed stones and numerous markings formed in sharpening the points afford evidence of their variety.

Of the several branches of building, mason work—the materials of which are the most durable—is best represented in the station with stone-carving, sculpture, and brick-making. All wood work has perished. Iron has proved incomparably less durable than stone, and the remains of such work are only shapeless masses of rusty metal. Slater work is evidenced by a solitary fragment of a roofing-tile. The place has yielded no evidence of plumber work or of plaster work; but the existence of numerous fragments of window-glass speaks of the glazier.

It would seem an omission not to mention, in connection with the constructive and artistic aspects of the station, the names of two architects (*architectus*), inscribed, as appears in Dr Macdonald's paper, on stones found at Birrens. One "Amandus," and the other "Gamidiahus"; doubtless military officers, but architects nevertheless, as Vitruvius himself, while an architect, held an appointment and had charge of the engines of war, which he describes in his book on architecture. The first owes the preservation of his name to the religion of some one else. The inscription embracing it beneath the figure of Brigantia reads: "Sacred to Brigantia. Amandus the architect (erected this) by command" It may be inferred from the inscription that he had charge of such works. Through his own piety the name of the other has come down to us. "Sacred to Harmella. Gamidiahus the arc[hitect] performed his vows, willingly, gladly, deservedly."

III. THE INSCRIBED STONES. BY JAMES MACDONALD, LL.D.,
VICE-PRESIDENT.

When Gordon, who may justly be credited with having been the first to point out that Birrens was the site of a Roman station, wrote his account of it some time before the year 1727, he saw only one inscribed stone, and does not seem to have heard of any others that had been found there. Of this solitary stone, probably the **AXAN | CONIS** of Horsley, to be afterward noticed, all he had to say was that it had "Roman letters on it, but so defaced that it was unintelligible." In 1731 Sir John Clerk made the noteworthy discovery of which he has given us an account in *Memoirs of My Life*.¹ How the statuette of Brigantia and the other two inscribed stones, seen along with them in the place and position described by him, escaped the notice of Gordon, must always remain a mystery. Horsley does not appear to have been at Birrens himself. But he gives, from a drawing sent him by Sir John Clerk, a figure of "a broken [inscribed] stone built up in one of the houses at Middleby," *i.e.*, at Birrens, the same in all likelihood as that noted by Gordon. The latter, however, in "Additions and Corrections" to the *Itinerarium Septentrionale*, published in 1732, and Horsley, ere he finished the *Britannia Romana*, were able to give illustrations and descriptions of the discoveries made by Clerk.

In 1750 Dr Richard Pococke, Bishop successively of Orrery and Meath, was at Birrens, where he saw, still "in a house there," the stone figured by Horsley. Ten years later, in the course of another of his tours in Scotland, he visited Hoddam Castle, an old baronial residence some five miles to the west of the Roman station, and writes of it thus:—"Here I saw an altar found at the Roman Camp called the Lawn² at Middleby, which camp I saw in 1747 [1750]. There is a road from that camp to Carlisle and also to another [camp] which I

¹ See *ante*, and *Proceedings Soc. of Antiq. of Scotland*, vol. xxviii. p. 302.

² From the small property of Land or Lan, on which a part of the western defences and "the procestrium" of the station were situated.

saw at a mile distance under Burnswork, and it goes on to Moffet. Here is an altar with an inscription on it which has not been published and may be seen on the other side." [There is, however, no inscription on the other side of the Bishop's MS. ; he had omitted to insert it.] "Here is also a relief which seems to be the drapery of a figure ; and there is a fragment of a winged figure in relief, one foot of which is on a globe with a cross on it."¹ The Bishop's impressions of Scotland are contained in hurriedly written letters to near relatives ; and in order to get at the facts, regard must sometimes be had to the context. At first sight it looks as if two altars were spoken of in the preceding extract. But I suspect the reference is to one. He begins to tell his sister, to whom the letter is addressed, about an altar, but interrupts his

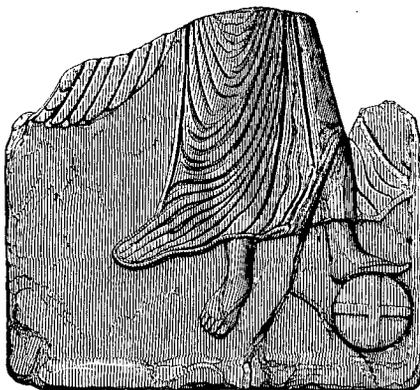


Fig. 5. (Scale $\frac{1}{2}$.)

story with a notice of a road. On finishing what he has to say about the road, he returns to the altar. Less evidently, but almost as certainly, he speaks of but one piece of sculpture in relief. There is now in the National Museum, Edinburgh, the lower part of a winged figure with drapery, which thus combines the characteristics he gives of what appears in his account to be two figures. Of this a representation is here given (fig. 5). The stone came from Birrens ; and that Dr Pococke

¹ Pococke's *Tours in Scotland* (Scottish History Society), p. 33.

had this object in view at the time he was writing is certain by a drawing he had made, and which is copied into his MS. The mistake is easily explained. The Bishop no doubt wrote from brief notes taken to aid his memory, and in this instance they failed to keep him right.

Roy, whose Plan of Birrens, now so valuable, must have been made by the engineers of the Government Survey soon after the date of Dr Pococke's visit, has no reference in the text of the *Military Antiquities* to inscribed stones.

Thomas Pennant, another and more famous traveller than the Bishop of Meath, saw in June 1772 both Birrens and Hoddam Castle. His brief account of the former simply informs us that inscribed stones had been dug up there. But in his notice of the castle we read:—"In the walls about this house are preserved altars found in the station at Birrens. As they do not appear to have fallen under the notice of the curious, an enumeration of them will perhaps not be unacceptable; therefore shall be added in the appendix."¹ Accordingly, one of the appendices to the third volume of his *Tour in Scotland*, published four years after his visit to Hoddam Castle, is entitled "Of the Antiquities found at the Station at Burrens," and contains a list of nineteen such objects—fourteen inscribed stones, two uninscribed fragments (the one the top of a sepulchral slab, the other the figure in relief seen by Dr Pococke), and three pieces of pottery. It would appear as if he at first intended his "enumeration" to be limited to stones then at the Castle, but afterwards added others which, with one exception, he gives as if found at Birrens. Thus, of the fourteen in his list only five (Nos. 15, 16, 17, 18, and 19 of this paper) could have been seen by him at the Castle. Sir John Clerk's "finds" of 1732 are properly included. But of the remainder four at least were not only not found at or near Birrens, as will be presently shown, but belonged to the North of England—a circumstance which must be looked upon as casting a slight doubt on the locality of some of the others; for, unfortunately, Pennant gives no account of how or when any of them had been brought to light.²

¹ Pennant, *A Tour in Scotland*, vol. ii. p. 105.

² Since the above was in type, I have been favoured by Mr. Barbour with the

Captain Grose, who devotes to Hoddam Castle two of his plates, and who, in his visit to it in 1789, was accompanied, as we learn from the Riddell MS., by the Scottish antiquary, Robert Riddell of Glenriddell, states that "in and about the walls are preserved divers Roman altars and inscriptions found at Birrens in this neighbourhood."¹

The notice of the parish of Middlebie in Sir John Sinclair's *Statistical Account of Scotland* (1793), is one of the briefest and most disappointing in the series. It makes only a passing mention of Birrens.

In the spring of 1810 the then proprietor of Land, Mr James Clow, appears to have been carrying on agricultural operations of some kind in the "procestrium" field, for he dug up at that time, near an old road that crossed it obliquely, the Minerva altar, now in Burnfoot House. Whether any part of the ground was then being brought under cultivation, or whether the plough had been driven into the soil more deeply than usual, we are left to conjecture. In 1813 the altar is found serving as a pedestal to a sun-dial in the garden of George Irving, Esq. of Burnfoot. Land itself became in 1837 a part of the Burnfoot estate.

From the remarks made by the writer of the *New Statistical Account of Middlebie* (1831),² one would infer that the whole of that part of

perusal of an unpublished letter, written on 25th September 1770 by "J. Johnstone," regarding whom he has been unable to get any satisfactory information, and addressed to the Rev. Bryce Johnston, Annan, which contains readings and explanations of four "inscriptions," sent evidently in reply to a request. They are Nos. 15, 16, 17, and 19 of this paper and were then all at Hoddam Castle. Either, therefore, in the interval between 1750 and 1770, the collection of Birrens antiquities at the Castle had been increased, or Bishop Pococke had been less inquisitive about them than Mr Johnstone. The readings and explanations given by the latter are occasionally rather wide of the mark, but not without interest.

¹ Grose, *Antiquities of Scotland*, vol. i. p. 141.

² "Situated on the lands of his Grace the Duke of Buccleuch and Queensberry, I trust Birrens will long continue uneffaced by Gothic barbarism; and the more so because there was originally another camp adjoining it which being on the ground of a small proprietor, was dug up some years ago, and is now completely destroyed. In this last there were found many splendid specimens of Roman antiquity, particularly large stones neatly cut and ornamented, with inscriptions perfectly legible; but most of them have been sold or given away, and none, I believe, exist in their native parish except one erected in the neighbouring garden of Mr Irving of Burnfoot."
—*Dumfriesshire*, p. 366.

the station which was on the Land property had been reclaimed some years before he wrote, and that numerous antiquities found on it had, with the exception of the altar just noticed, been heedlessly dispersed. But if the details given to Mr Hewison by the contractor, Leach, are to be received as true,¹ the "Gothic barbarism" the worthy clergyman so warmly reprobates did as much if not more mischief soon after 1810 on the Duke of Buccleuch's part of Birrens. Read in this new light, his words have an ironical bearing he could never have intended to give them. Some at least of the "splendid specimens of Roman antiquity" referred to in the *Statistical Account* may have been unearthed, not by Clow, but by Leach; the writer, perhaps imperfectly informed, having failed to distinguish between them. Allowance for exaggeration on the part of Leach has no doubt to be made. Roy's Plan, at least an impartial authority in the matter, seems to render this necessary. But Leach's story must rest on some foundation; and if so, about 1816, or a little later, what then remained of Roman architecture at Birrens was delivered over to the spoiler, without the knowledge, we may be sure, of the then Duke of Buccleuch, whose princely generosity and cultured taste are so well known.

Sir D. Wilson, in the first edition of his *Prehistoric Annals of Scotland* (1851), made known the existence of three hitherto unrecorded altars, "found about the year 1812 at Birrens." They were then "in the valuable collection of Charles Kirkpatrick Sharpe, Esq.," Edinburgh. How they came into his possession is not stated. It would have been interesting to learn whether their discovery was in any way connected with that of the Minerva altar; for if so, then the assertion in the *New Statistical Account* of the parish would be so far confirmed. One also feels inclined to ask whether they may not have been disinterred by Leach. Mr Hewison, however, thinks his contract could hardly date earlier than 1816, if so early. In that case the elasticity of the qualifying word "about" seems scarcely to admit of "1812" being extended to 1816, or perhaps later. On the strength of our present information, nothing more definite can be said.

¹ See *ante*, in Dr Christison's paper.

No further discoveries of any importance appear to have been made at Birrens till the recent excavations.

The readings Pennant gives of the inscriptions in his Birrens list have hitherto been accepted on his authority. The five stones he saw at Hoddam Castle still exist, though some were supposed to have disappeared. Now that these are again accessible, inaccuracies are found to occur in several of the readings we find in Pennant. It has therefore been deemed desirable to bring together notices of all the inscribed stones discovered from time to time at the station, and to give, besides an illustration of each, its history, a description of it with a reading of the inscription, as well as a short commentary on the text with an expansion of it and a translation. Along with the illustrations the letters of each inscription will be printed in plain capitals, without ligatures and with a space between the words or parts of a word, no attempt being made to show peculiarities of the lettering, since these will be seen in the illustrations. The stones discovered during the recent excavations, and as yet undescribed, will be taken up first. To the notices of the others a few references will be added, including the work in which each of them was first noticed and the British volume (the seventh) of the *Corpus Inscriptionum Latinarum*, or its supplement, the *Ephemeris Epigraphica*.

To Mr F. Haverfield, M.A., F.S.A., Christ Church, Oxford, I am under very great obligation for the readiness with which he has given me the benefit of his knowledge of Roman epigraphy and of his personal examination of some of the stones. Without his kindly proffered help, I should hardly have ventured to enter so fully into the subject-matter of the inscriptions.

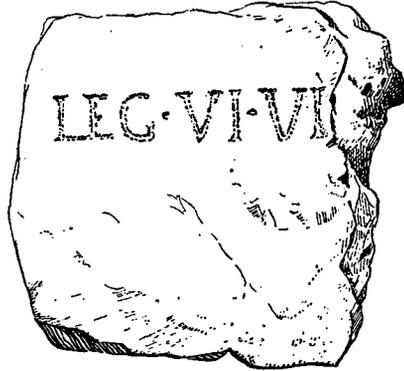
The illustrations, with the exception of figs. 11 and 20 sketched and engraved by Mr J. Adam, have been drawn by Mr F. R. Coles, who made a careful study of each stone, with the view of representing the inscription on it as exactly as possible. Photographs of most of them were also kindly taken for us by Mr John Rutherford of Jardington, Dumfries.

I. STONES NEWLY DISCOVERED.

1. (Fig. 6) Found in the course of recent excavations at Birrens ; in the National Museum, Edinburgh.

LEG VI · VI

A roughly dressed stone, $11\frac{1}{2}$ inches by $10\frac{1}{2}$ inches, with a short inscription punctured on it in faint letters. A similar stone, having the same letters, carved in the same way, may be seen at Chesters (Cilurnum) in Northumberland, in the eastern guard chamber, on the upper course of the wall.

Fig. 6. (Scale $\frac{1}{4}$.)

Expand :—*Leg(io) Sexta Vi(ctorie)* ; i.e., "The Sixth Legion, called the Victorious."

2. (Fig. 7) Same history as No. 1.

DOL
NO SACR
MAGVN
NA VS·

Fig. 7. (Scale $\frac{1}{2}$.)

Part of a small votive slab. It had been, when entire, 1 foot 5 inches in breadth, and about 1 foot 10 inches in height. The first line, which was probably *I · O · M*, is gone ; for what remains of the second and the beginning of the third, Mr Haverfield and Mr R. Blair, secretary of the Society of Antiquaries, Newcastle-on-Tyne, independently suggested *DOL(ICHE)NO*. The name of the

dedicator has a non-Roman look. "Dolichenus," observes Mr Haverfield, "was an oriental god, getting his name from Doliche in Com-magene, who was widely worshipped, especially in the army, during the second and third centuries." This deity was frequently identified by the Romans with Jupiter.

We may now venture to supplement and expand this imperfect inscription as follows:—[*I(ovi) o(ptimo), m(aximo)*], *Dol(iche)no sacr(um). Magunna v(otum) s(olvit)*; i.e., "Sacred to [Jupiter] Dolichenus, the greatest and best. Magunna performed a vow."

3. (Fig. 8) Same history as before.



Fig. 8. (Scale about $\frac{1}{2}$.)

To be read thus:—

IMP CAES · T · A ADR
 AN NINO · AVG NT.
 MAX . . . TR POT · XVI · COS IIII
 COH · II R · MIL · EQ · C · L ·
 SVB · IVI LEG · AVG · PR · PR ·

Had the stone been found entire the inscription would have run nearly as follows :—

IMP · CAES · T · AEL · HADR
 ANTONINO · AVG · P · P · PONT
 MAX · TR · POT · XVI · COS · IIII
 COH · II · TVNGR · MIL · EQ · C · L ·
 SVB · IVL LEG · AVG · PR · PR ·

Thirteen fragments of an historical tablet 4 feet 6 inches by 2 feet 3½ inches. Some of these fragments were found near, others in, the well that was discovered within the area of the prætorian buildings. The tablet is valuable as giving us a date—A.D. 153, although this is not necessarily the year in which these buildings were erected. The tribunitial power was supposed to be bestowed for life on the Roman emperors at the time they assumed the purple; and accordingly, on each anniversary of their accession, a year was added in all public documents to the number of those during which they had held this dignity. As Antoninus Pius became emperor A.D. 138, the sixteenth year of his investment with the tribunitial power, in other words of his reign, was A.D. 153. It was somewhat different with the consulship. That honour was to be obtained by the emperors for the asking; but few of them were at the trouble to do so often. Pius was consul only four times—in the first, second, third, and eighth year of his reign. The numerals, therefore, after **COS** indicate no particular year, after A.D. 146, but only the number of times in all he had nominally held the consulship. In addition to other public functions which they usurped, the emperors were presidents for life of the College of Priests. The last half of the fourth line, which appears again in Nos. 4 and 16, is fully explained under the latter. The name of the Roman governor of Britain at the time the slab was erected had been on it, but only the letters **IVI** remain, the **I** being plainly the commencement of an **L**. In the list of Roman governors in our island there are many blanks, and it is much to be regretted that the whole of this name has not been recovered. There is no difficulty in supplying the rest of the missing letters, owing to the inscription being written in the proper official form.

It is usual to regard all such tablets as honorary, and take **IMP**, etc., to be the dative depending on a verb expressed or understood at the end of the sentence. But it seems better to regard these words as in the ablative, so as to mark the date at which the tablet was set up.

The full title of the Emperor Antoninus Pius, as given on the monuments, is **IMP. CAESAR T. AELIVS HADRIANVS ANTONINVS AVG. PIVS P(ater) P(atriciae)**; but contractions of most of these occur, and there may be omissions. A drawing of the stone to scale shows that **PIVS** has probably been omitted in this instance. This happened very rarely. But there is another example of the omission in an Antonine Wall stone.¹

We may now expand thus:—*Imp(eratore) Caes(are) T(ito) Aelio Hadr(iano) Antonino Aug(usto) [Pio] P(atre) P(atriciae), Pont(ifice) Max(imo), tr(ibuniciae) pot(estatis) XVI., Consule IV., coh(ors) secunda Tungr(orum) mil(itaria), eq(uitata), c(ivium) L(atinorum), sub Jul. . . . Leg(ato) Aug(usti) P(ro)-P(raetore) [posuit]*; translating:—"In the reign of the Emperor Cæsar Titus Ælius Hadrianus Antoninus Augustus [Pius], Father of his Country, Chief Pontiff, invested with the tribunitial power sixteen times, four times consul, the Second Cohort of Tungrians, a thousand strong, of which a due proportion is cavalry, and in possession of the privilege of Latin citizenship, (erected this) under Jul. . . . Legate of the Emperor as Governor (of Britain)."

4. (Fig. 9) Same history as before.

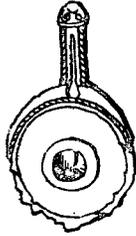
An altar, 3 feet 2 inches high, 1 foot 11 inches broad at the top, 1 foot 8 inches across the middle in front, and 1 foot 4 inches across it on the ends. The upper part or "capital" is beautifully ornamented all round, first by a narrow cornice of fretwork and two mouldings, the higher of which is rounded and projects over the lower. These are succeeded by three lines of delicately carved work, which are interrupted, just in the centre and above the inscription, by pillars that support what appears to be the roof of a domed building with panels or doors.

On the top are "volutes," with a rosette on both ends and three on

¹ *C.I.L.*, vii. 1140.

the outer side of each. Instead of a focus of some depth, there is a shallow patera-like depression, with what seems a handle attached to it longitudinally. There had been a corresponding handle on the opposite side, but it is now broken off. Below the inscription, and all round, in place of the fretwork, there runs a line of the cable pattern, followed by mouldings corresponding to those above. On the right side is sculptured a

DISCIP ·
A V G ·
COH · II ·
TVNGR ·
MIL · EQ · C · L ·



knife in flaying
and dividing
them.

The inscription, of which only the first line requires special notice here, is well cut. **DISCIP.** stands for **DISCIPLINÆ**, or its uncontracted form **DISCIPVLINÆ**. The altar is thus dedicated to the disciplinary severity of the Roman emperor, which is adored as a divine attribute. The first of the emperors to whom this honour appears to have been

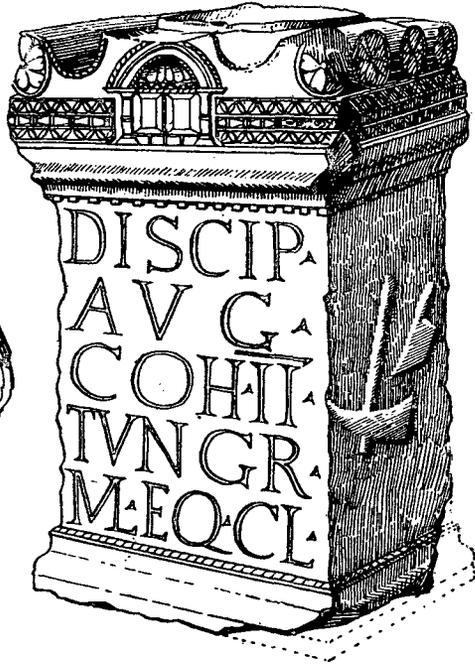


Fig. 9. (Scale $\frac{1}{17}$.)

rendered was Hadrian, of the strictness of whose military regulations notice is taken by Dio. "He brought," says Dr Collingwood Bruce, "the discipline of the Roman army to the greatest perfection. Several of his coins bear on the reverse the legend **DISCIPLINA AVGVSTI** with the corresponding device." The same legend is also found on a few coins of the less energetic Antoninus Pius. At Castlesteads or Walton station in Cumberland, an altar was found with the brief inscription **DISCIPLINÆ AVGVST** but without any dedicator's

name. Till now it was considered to be unique as a Romano-British altar, though there were known to be two African stones with the same dedication.

At some time the Birrens altar had been thrown into a well in the prætorian buildings. After falling 12 feet it had turned sufficiently to stop its further progress downwards, and remained at that depth, immersed in water, till discovered by the workmen when emptying the well. A part of the base has been broken off on one side.

Expand:—*Disciplinæ Aug(usti) coh(ors) secunda Tungr(orum), mil(itaria), eq(uitata), civium L(atinorum) [posuit]*: and translate:—"To the Discipline of the Emperor, the Second

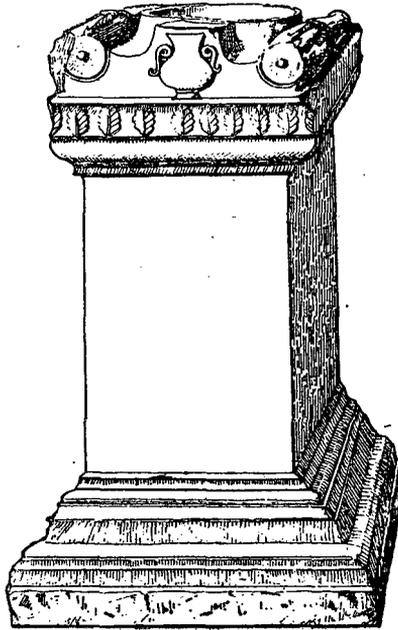


Fig. 10. (Scale $\frac{1}{2}$.)

Cohort of Tungrians, a thousand strong, with a due proportion of cavalry, and in possession of the privilege of Latin citizenship, (erected this)."

5. (Fig. 10) Same history as before.

An altar of chaste design, found within the prætorian buildings, 3 feet high, 1 foot $8\frac{1}{2}$ inches broad at the base, and 1 foot across the middle. It has, as it were, two bases, each consisting of a series of mouldings running all round, but decreasing in breadth, and so arranged as to have the appearance of great stability without losing that of lightness. At the top on each side are "volutes," having six lance-shaped thunderbolts laid closely on them in two sets of three each, one set pointing to the front, the other to the back of the altar. The division between the sets is distinctly marked by a sunk cord of cable pattern. Between the "volutes" is a focus, in front of which is carved in relief a two-handled vase of elegant shape. Between the bottom of this vase and the stem or central part are two mouldings and a cornice, the uppermost moulding being flat, and ornamented with a line of leaves. The body of the altar is well dressed on all four sides, but the front bears no inscription.



Fig. 11. (Scale $\frac{1}{17}$.)

II. STONES FORMERLY DISCOVERED.

6. (Fig. 11) Found at Birrens in 1731 by Sir John Clerk; preserved at Pennicuik House, Mid-Lothian, from 1731 to 1857; presented in 1857 to the Society of Antiquaries of Scotland by Sir George Clerk, Bart.; now in the National Museum, Edinburgh.

BRIGANTIAE · S · AMANDVS
ARCITECTVS · EX · IMPERIO IMP

A statuette of Brigantia, sculptured in relief, standing in a shallow niche, 3 feet $\frac{1}{2}$ inch high, 1 foot 6 inches broad at the base, and 8 inches thick. Externally the top of the niche is pointed, but inside it

is rounded. At the top and bottom of each side are simple mouldings. The height of the figure is 2 feet $3\frac{1}{2}$ inches.

Brigantia is represented with what seem to be wings attached to her somewhat awkwardly. She appears to be clad in some kind of loose tunic or upper garment, which is fastened round the waist with a girdle, if not also on the right shoulder with a brooch. Behind, it hangs down in folds to her ankles; but in front it is tucked up almost to the girdle on the left side, though on the right it reaches to the knee. The legs, one of which, probably because it is more in relief, looks slightly thicker than the other, are covered by a light drapery falling in conventional folds to the feet. Over her shoulders, a cloak appears to be thrown, but it is difficult to distinguish it from the rest of her dress. In her right hand is a spear, in her left a ball. On her breast she wears a small gorgon's head, such as is sometimes seen on the breastplate of a Roman general. Her hair is thickly twisted round her forehead, as well as down each cheek to her shoulders. Upon her head is a castellated ornament, encircling a ball topped with what appear to be leaves. Fixed seemingly to the niche, and just within reach of her left hand, is an oval shield, that shows its hollow side and a provision inside the rim for fastening a band of some material to receive the arm.

From the lower moulding on the right of the niche there rises an object shaped like an elongated acorn, which has hitherto remained unexplained; for the supposition of Gale, that "the pileus denotes liberty," cannot be entertained. Gordon and Horsley both give incorrect representations of it, that lend some countenance to this conjecture; and the latter remarks, "If it be not a cap of liberty, I know not what to make of it." But the pileus or felt cap, whether that given to slaves as the sign of their manumission, or used as the symbol of liberty, is out of place here. It has been suggested that the object may be a helmet; and this would no doubt be a fitting accompaniment to the shield. Brigantia's head, however, is already protected. It may be said that the helmet was placed beside her because it was worn by the warriors of the tribe she represents; and if objection be taken to the shape, the reply may well be that we know nothing of the form this piece of defensive

armour had as worn by the Britons of Roman times, and not much of the materials of which it was likely to be made. But the question what it is had perhaps be best left an open one. In style, the sculpture is classical, but the art is by no means of a high order; and neither the expression nor the attitude of the figure is consistent with its warlike intent. Sir John Clerk thought he could detect traces of gilding on it: if there were such when he saw it, they have now all disappeared. On the idea the figure probably embodies, some remarks will be made afterwards.

The inscription contains no difficulty except the **IMP** at the end, which has been variously explained. Sir John Clerk saw or believed he saw an additional **I**; and there is still visible after the sloping **P** something like an attempt to form an **I**. It is, however, continued downwards below the line of the other letters, and then bends round, with the appearance of being either the line of a narrow moulding or an accidental flaw in the stone. Roger Gale, assuming the copy sent him by Clerk to be correct, took the supposed four letters **IMP.I** to be a contraction of **IMP** [*eratoris*], **I** [*uliani*]. This led easily to the supposition that the statuette had been made by command of Julian the Apostate, Roman Emperor A.D. 361-363. Horsley, doubting the existence of the **I**, thought the other three letters stood perhaps for [*pecuniam*] **IMP** [*endit*], *i.e.* "spent money on this." Grotefend hazarded the conjecture that they represented **IP** [*sius*], *i.e.* "of herself," the **M** being inserted through a mistake on the part of the stone-cutter. Henzen suggested the reading and expansion **IMP** [*ensa*], **S** [*ua*], *i.e.* "at his own expense"; Mommsen, doubtfully, **IMP** [*eratum*] **F** [*ecit*], *i.e.* "executed the order"; M'Caul, either **IMP** [*erante*] **I** [*psa*], *i.e.* "herself giving the order," or [**N**] **IMP** [*hæ*] **I** [*psius*], *i.e.* "(at the command) of the Nymph herself," referring to another inscription beginning **DEAE NYMPHAE BRIG**.¹ This last conjecture, even if we take into account that **I** is sometimes written instead of **Y**, is surely far-fetched. Hübner is inclined to adopt Mommsen's expansion as on the whole the most probable. As has been already remarked, the existence of a final **I** is extremely doubtful; and so far as any of these suggested

¹ *C.I.L.*, vol. vii. p. 875.

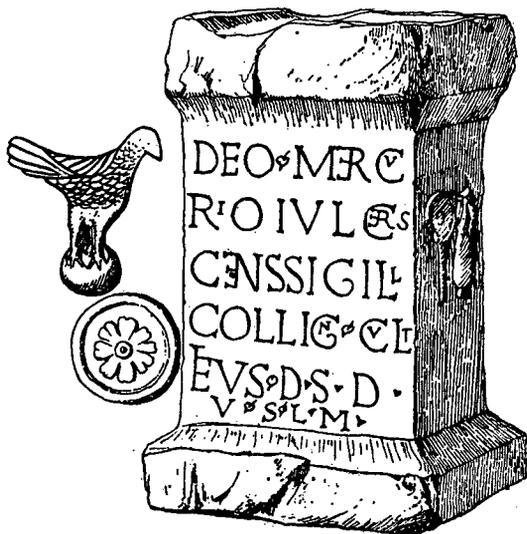
expansions rest on it, they have but slender support. Even the **M** of **IMP** is not quite certain.

Amandus, as a proper name, appears in inscriptions in England and on the Continent.

With the exception of those letters at the end, which we have seen to be of such doubtful import, the inscription requires almost no expanding. Leaving them out of account, as can be done without any detriment to the sense, we may translate:—"Sacred to Brigantia. Amandus, the architect, (executed this) by command"

Gordon, *Itin. Sep.*, Additions and Corrections, pp. 27-28 and plate xviii. fig. 1; Horsley, *Britannia Romana*, p. 341, Scotland, xxxiv.;

Clerk, *Dissertatio de Monumentis quibusdam Romanis*, pp. 7-11 and plate, fig. 1; M'Caul, *Romano-British Inscriptions*, pp. 238-9; Hübner, *C.I.L.*, vii. 1062.



7. (Fig. 12) Same history as No. 6.

DEO · MERCV
RIO IVL CRES
CENS SIGILL
COLLIGN · CVLT
EIVS · D · S · D ·
V · S · L · M ·

Fig. 12. (Scale $\frac{1}{12}$.)

This altar-shaped stone is 2 feet $6\frac{1}{2}$ inches high, and 1 foot $6\frac{1}{4}$ inches broad at the base. There is a hollow space in its top, 13 inches long by 8 inches wide and 2 inches deep. On the left side are sculptured a *patera* or libation-pan with a plain handle and an *urceus* or pitcher—the one for holding the sacrificial wine after, and the other before, it was

poured out; while on the right is a raised patera-like disc, with a rosette in the centre, and slightly above but not quite in line with it, is a bird quietly resting on a ball. In fig. 3 of Sir John Clerk's plate the disc and ball, which are here represented on a larger scale than the objects on the left, look as if connected. This has led Dr Hübner to regard them as one object—another patera with a handle in the form of a bird. But, whatever may have been intended, they are made distinct, as shown in the illustration. The rosette reminds one of what is often seen on the ends of the ornaments called volutes, common on the top of a votive altar.

The letters **COLLIGN**, cut on the stone without any stop, form the chief difficulty in the inscription. Mommsen's expansion into **COL** [*umna*] **LIGN** [*ea*] is the most satisfactory that has yet been proposed. Hübner adopts it, taking the words to refer to one of those Hermæ or pillars of wood surmounted by the head of a god, usually that of Hermes (Mercury), whence the name. It may equally well, as Mr Haverfield suggests, have been intended for a statuette on a wooden column inserted into the hole on the top of the stone, like the Gigantensäulen in Germany.

Notwithstanding its shape, the emblems of sacrifice on one of its sides, and the dedication to Mercury, this may not be an altar pure and simple. The rest of the inscription, if Mommsen's expansion is correct, and the hollow in the top, different from the round cavity or *focus* in which the offerings brought to an altar were laid, indicate its being intended to receive and support a "column" of some sort. The only objection to this is that it has some of the characteristics of an altar. In *Collectanea Antiqua*, vol. i. p. 13 (pl. viii.), C. Roach Smith describes and figures as "a Gallo-Roman votive altar," a plain cube of sandstone about 2 feet high, dedicated to Jupiter. It was at one time a baptismal font in the church of Halinghen, Pas de Calais, but is now in the Boulogne Museum. The greater part of the top is hollowed out; and the stone like the present one may have been the pedestal of a small statue. It is, of course, possible that the oblong hollow space was cut or enlarged at the time it became consecrated to a Christian use, but this can hardly have been done in the case of the Birrens stone.

According to the view now taken, the inscription is to be expanded as

follows :—*Deo Mercurio. Julius Crescens sigill(um), col(umnam) lign(eam), cult(oribus) ejus d(e) s(uo) d(edit). V(otum) s(olvit) l(ibens) m(erito)*; and translated:—"Sacred to Mercury. Julius Crescens, from his own means, presented this small image, a wooden column, to the worshippers of that god. Willingly, deservedly he fulfilled his vow."

In the Museum of the Yorkshire Philosophical Society there is a small but richly ornamented altar that was found in 1880 in the garden of St Mary's Convent, York. It is dedicated to the goddesses of the house and home by C. Julius Crescens, who may be the same as the Julius Crescens here mentioned.¹

Gordon, *Itin. Sep.*, Additions and Corrections, pp. 28–29 and pl. lxviii.; Horsley, *Britannia Romana*, p. 342, Scotland, xxxv.; Clerk, *Diss. de Monum.*, pp. 11–14 and Plate, figs. 2, 3, 4 and 5; *C.I.L.*, vii. 1069.

8. (Fig. 13) Same history as No. 6.

NVM · AVG
DEO · MERC
SIGN · POSV
ERVNT · CVL
TORES · COL
LIGNI · EIVS
DEM DEI CVR
ING · RVFO
V S L M

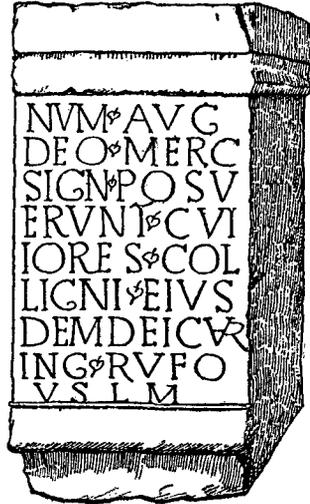


Fig. 13. (Scale $\frac{1}{2}$.)

The height of this plain stone is 2 feet 7 inches, its breadth is 1 foot $2\frac{3}{4}$ inches, and its thickness is $10\frac{1}{2}$ inches. The top is level. The letters of the inscription are well cut.

The meaning of **COL LIGNI** must be held as determined by the expansion assigned to the similar letters in the preceding inscription.

¹ *Handbook, York Museum*, p. 38, 8th ed., 1891.

Numen and *numina Augusti* frequently occur on Roman monuments, sometimes alone, sometimes, as here, along with the name of a well-known divinity. The conjunction *et*, however, is sometimes absent, and the name of the god usually comes first. That we have not here the Emperor himself invoked as a god, the expression, *pro salute imperatoris*, joined with *numina Augusti* in a Benwell inscription¹ may seem to prove. But the possibility of this explanation in other cases than the Benwell one can hardly be excluded. The substitution of *i* for *e*, which we have in *lignius*, occurs in other words.

The stone would appear from the inscription to have been also a pedestal for the support of a wooden "column," but without a receptacle for the block, such as there is in No. 7.

Inscribed stones, altar-shaped and generally regarded as altars, with dedications in proper form, but destitute of any focus as well as of the usual representations of the implements of sacrifice on their sides, occur at High Rochester and elsewhere.²

In the *Dissertatio*, Sir John Clerk informs us that, believing a statue of the god Mercury was lying somewhere near the place where he first saw this stone, he caused a search to be made for it, when the body and limbs of a figure of great size were discovered. It appeared to have been broken in pieces at some time and the fragments afterwards joined again. From this he very mistakenly inferred that the statue had been shattered in pious indignation by Christians in the reign of Constantine the Great, and repaired in that of Julian. Stuart states that it "had measured when entire not less than twenty-six feet in height,"³—an incredible assertion, sufficient to throw discredit on the whole story. A representation of it on the plate of the *Dissertatio*, showing it as if it had stood in a niche that rested on the top of the inscribed stone, is of ordinary dimensions.⁴ Anything more unlike a piece of Roman sculpture cannot well be conceived. But the "statue" has not been heard of for a long time.

¹ *C.I.L.*, vol. vii. 506.

² *Lapidarium Septentrionale*, pp. 41, 281, 282, 283, 286.

³ Stuart, *Caledonia Romana*, 2nd ed., p. 127.

⁴ See *Diss.*, plate, fig. 7; also Gough's Camden (copied from it), vol. iv. pl. i. fig. 4.

Following Hübner, we may expand thus :—*Num(ini) or Nūm(inibus) Aug(usti), deo Mercurio, sign(um) posuerunt cultores col(umnae) ligni(e) ejusdem dei, cur(ante) Ing(enuo) Rufo. V(otum) s(oluerunt) U(benter) m(erito)*; and translate :—“To the guardian deity of the Emperor,¹ the god Mercury, the worshippers of the wooden column of the same god have erected this image under the superintendence of Ingenius Rufus. Willingly, deservedly, they performed their vow.”

Gordon, *Itin. Sep.*, Additions and Corrections, p. 29 and pl. lxxviii.; Horsley, *Britannia Romana*, p. 342, Scotland, pl. xxxvi.; Clerk, *Diss. de Monum.*, pp. 14-16 and plate, figs. 6 and 7; *C.I.L.*, vol. vii. 1070.

9. (Fig. 14) “From Middleby” (Clerk); in the Penicuik Collection till 1857; presented in that year by Sir George Clerk, Bart., to the Society of Antiquaries of Scotland; now in the National Museum, Edinburgh.

LEGIO
V (VI) P
F F

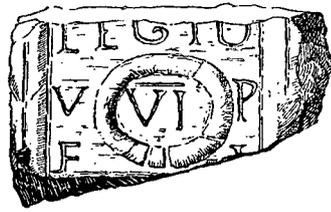


Fig. 14. (Scale $\frac{1}{4}$.)

A small legionary tablet, $4\frac{1}{2}$ inches high, 9 inches broad, and 3 inches thick. A piece has been broken off the stone both at the top and the bottom. A plain wreath surrounds the number of the legion. Early in the last century, Birrens was spoken of as the “Fort of Middleby.”

It is uncertain what purpose these small tablets and the centurial stones of like dimensions could have served. When found within a station they are supposed by some to have marked the place assigned

¹ An *et* may have been accidentally omitted here. If not, though the passages are scarcely parallel, the inscription recalls the lines addressed by Horace to the first of the Augusti :—

Sive mutata juvenum figura
Ales in terris imitaris, almae
Filius Maiæ, patiens vocari
Caesaris ultor.

as quarters to a particular detachment or century of the legion indicated by the number. Those that occur, as many do, at a distance from a station, along the walls on the northern and southern isthmuses, mark more probably some work done by the soldiers.¹

In consequence of the edges of the stone being broken, the last letter is somewhat doubtful. Dr Hübner reads F, and he is probably right. Expand:—*Legio Sexta, V(ictrix), p(ia) f(idelis), f(ecit)*; i.e. "The Sixth Legion, called the victorious, loyal and faithful, set up this."

Proceedings Soc. of Antiq. of Scot., vol. iii. p. 42; *C.I.L.*, vol. vii. 1075.

10. (Fig. 15) "Found at the station at Burrens" (Pennant); seen by Pennant at Hoddam Castle in 1772; remains there (1895).

DEAE
HARIMEL
LAE · SAC GA
MIDIAHVS
ARC + VSLLM

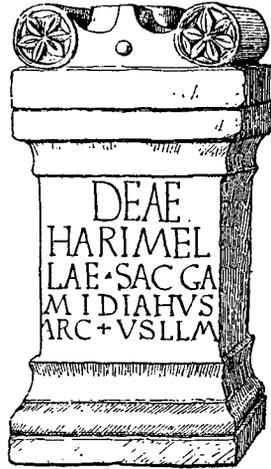


Fig. 15. (Scale $\frac{1}{16}$.)

A small altar of neat design, 2 feet $3\frac{1}{2}$ inches high, 1 foot broad at the base, and 1 foot 2 inches at the top. It is ornamented at the base and the "capital" with mouldings of some width, and on the top of the latter are "volute" with a focus or hearth between them. Surface much decayed by exposure.

Pennant, who read **SACGAMIDIAHVS** as one word, seems to have been greatly puzzled with this inscription. "I did not fail," he tells us, "consulting the learned on this occasion, but they rung such a number of changes on the words, that I content myself with giving the plainest reading." The letters are fairly legible, but must have been much more

¹ Bruce, *Roman Wall*, 3rd ed., p. 415.

distinct when he saw them 120 years ago. In his readings of it and of the other inscribed stones that were then at Hoddam Castle, mistakes occur; but he has come so near the truth on the whole, that in most cases where letters have become invisible since his day, we may safely take his word. The altar itself is dedicated to Harimella, otherwise unknown, the tutelary divinity no doubt of a district with which the dedicator was in some way connected. The reading, Gamidiahus, has been doubted; but it is not only what is on the stone, but also the form approved by philologists. Henzen's remark regarding it and some other names on those stones is very possibly true—*Nomina barbara, fortasse corrupta*. C. Roach Smith thinks it not impossible that Pennant misread Gamidiahus for Amandus, and Hübner substitutes N for H, reading Gamidianus. The H, however, and indeed every letter of the word, is most unmistakable. The letter at the commencement of the last line has now all but vanished. But we need not hesitate to accept Pennant's A. The fourth character in this line seems to be + not X as Pennant. This, however, is the form in which X reached Italy in the Chalcidian alphabet, and in which it appears in some other archaic alphabets. It was likely a knowledge of this that led Pennant to write X. The proper expansion of ARC is doubtful, but the probabilities are in favour of ARC (*itectus*). The + may be a form of † = IT. ARC (*arius*), which Hübner approves, occurs in a very few military inscriptions, but the sense is doubtful.

Expanding the inscription on these lines we have:—*Deae Harimellae sacrum. Gamidiahus, arc(itectus), v(otum) s(olvit) U(ibens) U(ibens) m(erito)*: "Sacred to Harimella. Willingly, gladly, deservedly Gamidiahus, the architect, has performed his vow."

Pennant's *Tour in Scotland*, vol. iii. (Appendix VIII.) p. 406, and plate xlv.; C. Roach Smith, *Collectanea Antiqua*, vol. iii. p. 203; Mc'Cauley, *Romano-British Inscriptions*, p. 239; *C.I.L.*, vol. vii. 1065.

11. (Fig. 16) Same history as No. 10.

An altar of same type as No. 5, but somewhat larger, 2 feet. 5½ inches high, 1 foot 5¼ inches broad at the top, and 1 foot thick. It is similarly

ornamented, with the addition of a crescent resting on a pyramidal support between the "volutes."

The inscription is very much weather-worn; but with the aid of Pennant's text and figure it can still be read.

The altar is dedicated to Viradecthis, probably another German or Gaulish deity. Except **MILIT** in line 3, all the letters on it are now more or less indistinct. The first line ends apparently with **EC**, though the **E** now looks an **L** and the **C** is very faint. Instead of **C** Pennant gives **S**. It may have been an **S** when he saw it and since tampered with, or he might have thought the open **C** represented **S**, as it does in Greek inscriptions of the period. In the second line the fourth letter is more like **R** than **P**, and the **G** is very faint; but Pennant's reading is no doubt correct. In the fourth line read **II** and not as in the

DEAE VIRADEC
THI PAGVS CON
DRVSTIS MILIT
IN COH II TVN
GROR SVB SILV
O AVSPICE PRÆF

illustration. The stroke, however, is now scarcely visible. The **L** of **SILV** in the fifth line is perfectly plain, and the **O** of the same word begins the last line, which ends with **PRAEF**, the two last letters of which form a ligature now so indistinct as to appear a simple **E**: in all these particulars Pennant is wrong.

C. Roach Smith is undoubtedly right in regarding **PAGVS**, in this and in another Birrens inscription, as the name of a district and not that of an individual. But Dr M'Caul was among the first to deal satisfactorily with the whole text. "Condrustis" he takes to be an ethnic

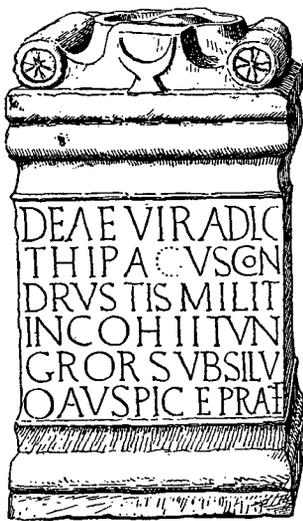


Fig. 16. (Scale $\frac{1}{2}$.)

adjective, derived from the Condrusi, a Germanic tribe spoken of by Caesar (*B.G.*, iv. 6, &c.) as inhabiting, along with the Eburones, the basin of the Meuse, which was in later times the home of the Tungrians. An **I** has disappeared or been omitted from the end of the fifth line. About the exact name of the Prefect, which is found on two other Birrens stones, there can be no doubt.

If we now expand the inscription we have:—*Deae Viradecthis. Pagus Condrustis militans in cohorte secunda Tungrorum sub Silv[i]o Auspice, praefecto, [fecit]*: “Sacred to the goddess Viradecthis. The Condrusian district (=the soldiers from that district) serving in the Second Cohort of Tungrians under the command of Silvius Auspex, the Prefect, (erected this).

Pennant, *Tour in Scotland*, vol. iii. (Appendix VIII.) p. 407 and plate xlv.; C. Roach Smith, *Collectanea Antiqua*, vol. iii. p. 202; M’Caul, *Romano-British Inscriptions*, p. 240; *C.I.L.*, vii. 1073.

12. (Fig. 17) “Found at the station at Burrens” (Pennant); now at Knockhill, near Ecclefechan, in a summer-house.

The pedestal of a statue of Fortune, a fragment of which still remains attached to it, 11½ inches high and 1 foot 2 inches broad. It is without any ornament except a plain moulding at the base. There are no stops in the inscription, the letters being all close together. A part of the slab has been broken off upon the right, so that the first two lines and probably the third are incomplete. Pennant read **R** at the end of the first and expanded it into *Reduci*, adding also *pro*. The epithet *Redux*, used in a causative sense, was frequently applied to the goddess Fortune by the Latin poets and in inscriptions, but the letter, of which a small portion is still to be seen on the stone, may have been the **P** of *pro* which is necessary with *Salute*; for it is doubtful if there had been room on the stone for both **REDVCI** and **PRO**. Pennant gives **CAM** as the ending of the second line, but **CAMPA** is still plainly visible, the second **A** being unbarred. In all probability the numeral **I** is now missing from the end of the third line, where Pennant has it. The letters of the fifth line are indistinct, but Mr Haverfield confirms Pennant’s reading.

Completing and expanding we have:—*Fortunae pro salute P. Campa(ni) Italici, prae(fecti) coh(ortis) secundae Tun(grorum), Celer Libertus U(ibens) U(ibens) m(erito) [dedicavit]*; “To Fortune, Celer, a

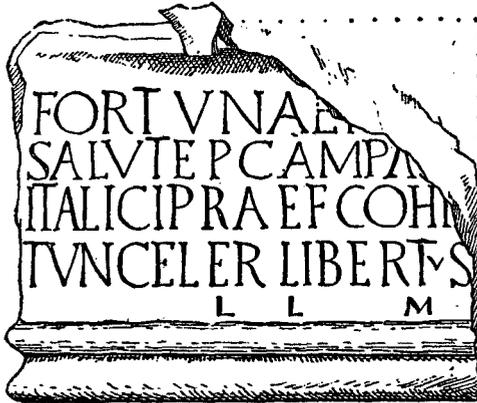


Fig. 17. (Scale $\frac{1}{4}$.)

FORTVNAE I
SALVTE P CAMPAN
ITALICI PRAEF COH I
TVN CELER LIBERTVS
L L M

freedman, for the safety of [his master] P. Campanus, an Italian, Prefect of the Second Cohort of Tungrians, gladly, willingly, deservedly (dedicated this).”

Pennant, *Tour in Scotland*, vol. iii. (App. VIII.) p. 407; M'Caul *Romano-British Inscriptions*, p. 246; *C.I.L.*, vii. 1064.

13. (Fig. 18) Same history as No. 12.

A sepulchral slab, 2 feet $4\frac{1}{2}$ inches high and 1 foot $10\frac{1}{2}$ inches broad. The surface has suffered greatly from exposure, but, except part of the fifth line, the reading can still be made out. Instead of the actual text, Pennant has given an expansion of the inscription, which has been copied by all subsequent writers. Some would substitute Arusiano

for "Afutiano" in the second line, and Basso for "Bassi" in the third. Arusianus and Bassus are both names known to be Roman. But it is not certain that we have here a Roman name; it may be that of a Tungrian. The reading on the stone is certain, and it is best to keep by it. There is an inscription (Henzen's n. 6773), which seems to fix the meaning of *ordinatus* here as "Centurion." **COH I** at the commencement of the line is distinct enough, though the rest of it is now scarcely legible, and we are thrown back on Pennant. The last four letters of the sixth line are also faint. On the whole we may safely follow Pennant here also, and read **BAETI**. The last letter of the eighth line is read by Mr Haverfield †=IT, which is also Pennant's reading.

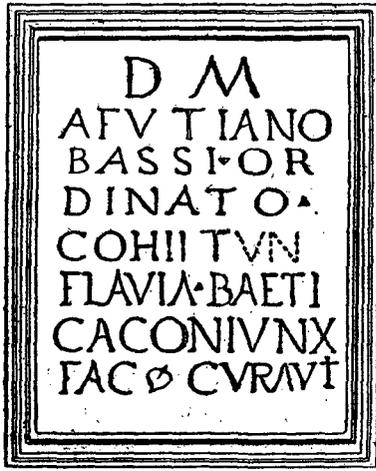


Fig. 18. (Scale $\frac{1}{2}$.)

Tungrorum), *Flavia Baetica*, *conjux*, *fac(iendum) curavit*; and translate:—"Sacred to the divine Manes. To Afutianus, (son of) Bassus, centurion in the Second Cohort of Tungrians, his wife, Flavia Baetica, caused this to be erected."

... Pennant's *Tour in Scotland*, vol. iii. (App. VIII.) p. 408; M'Caul, *Romano-British Inscriptions*, pp. 247-48; *C.I.L.*, vii. 1078.

The slab is interesting, as being the only relic we have of the Birrens cemetery. Accepting Pennant's expansion, but omitting his *tribuno*, which with-

D M
AFVTIANO
BASSI · OR
DINATO ·
COH II TVN
FLAVIA · BAETI
CACONIVNX
FAC · CVRAVI

out any authority he inserts after *ordinato*, we may read:—*D(is) M(anibus)*. *Afutiano Bassi ordinato coh(ortis) secundae*

14. (Fig. 19) "Found at the station at Burrens" (Pennant); seen by Pennant at Hoddam Castle in 1772; "in the collection of Charles Kirkpatrick Sharpe, Esq." (Wilson, *Prehist. Ann. of Scot.*, 1st ed., 1851); "deposited in the Museum of the University of Edinburgh" (Stuart, *Cal. Rom.*, 2nd ed., 1852); deposited by the Senatus of the University in the National Museum, Edinburgh, 1866.

An altar, $4\frac{1}{2}$ feet high and 1 foot 6 inches broad. There are heavy mouldings on the base and capital. The top is not hollowed out as in most of the other Birrens

FORTVNAE
COH · T ·
NERVANA
GERMANOR
∞ · EQ ·

altars. Its sides, cylindrical in form, are connected, by a notched or undulating broad border, the inclosed space being occupied by a flat rectangular focus.¹ It is dedicated to Fortune. Pennant has not copied the inscription with much care, and an expansion of it in two lines is what he gives.



Fig. 19. (Scale $\frac{1}{12}$.)

¹ The position of this altar necessitated its front being drawn from a point whence the inscription was best deciphered. In order to justify the above description, it is proper to state that the uppermost part of the capital is not shown as seen when looked at from above, but as it appears from the particular point of view that had to be chosen.

An altar dedicated by the same cohort to Jupiter has been found at Burgh-upon-Sands, and another to Cocidius, at Netherby.

A difference of opinion exists as to the meaning of the epithet *Nervana*. Some are of opinion that it has reference to the Emperor Nerva, as having first organised the cohort. This has the weighty support of Dr Hübner. On the other hand, C. Roach Smith thinks the cohort was so named because it had originally been levied among the Nervii. This tribe, which proved so formidable to Cæsar, are said by him to have been inhabitants of Belgic Gaul. Here they are called Germans. "The solution of the difficulty," writes Smith, "is afforded by Tacitus, who informs us that the Nervii and the Treveri were proud of their descent from the Germans: *circa adfectionem Germanicæ originis ultro ambitiosi sunt*. Thus, by the aid of this historian, we are able completely to understand in these inscriptions a style used by the Nervii, which hitherto was somewhat ambiguous." "It is difficult," says Dr M'Caul, "to decide which opinion should be preferred, as there are objections to both." ω , a common symbol, incorrectly read by Pennant as if placed at the beginning of the fourth line, is regarded as a graphic alteration of the Greek letter ϕ used to represent 1000 by the Chalcidian colonists of Southern Italy. Hübner gives a sixth line, V. L. [M]. There are certainly indications of some such letters when the stone is closely examined, but their presence is hardly a certainty.

Expand thus:—*Fortunæ Coh(ors) prima Nervana Germanor(um), miliaria eq(uitata) [dedicavit]*; and translate:—To Fortune, the First Cohort of Germans, called the Nervana, a thousand strong, including its complement of cavalry, (dedicated this).

Pennant, *Tour in Scotland*, vol. iii. (App. VIII.) p. 408; C. Roach Smith, *Collectanea Antiqua*, vol. iii. p. 204 and plate xxiii. fig. 3; *C.I.L.*, vii. 1063.¹

¹ Besides these inscribed stones, Pennant gives five others in his list of Birrens antiquities, which, for the sake of completeness, it appears proper to notice here.

(1) "An inscription C.L. | PED. BR. P." Pennant's expansion—*Collegium ligniferorum peditatus Brigantice posuit*—must be at once dismissed. As pointed out by Mr Haverfield, this is very probably identical with a stone that once stood in

15. (Fig. 20) "Found near the Roman Encampment on Burnswark Hill, Dumfriesshire, parish of Hoddam or Middlebie" (*Archæol. Scot.*); presented to the Society of Antiquaries of Scotland by Dr (afterwards Sir) David Brewster, 1810, and since in the National Museum, Edinburgh.

A head sculptured in bas-relief, beneath which are a few letters of an inscription. It is 11 inches by 9 inches.

Naworth Garden, and bore this inscription— $\frac{\text{PED.}}{\text{CL BRIT}}$ or, as Dr Hübner suggests,

with another (perhaps the Naworth stone) at Netherby inscribed thus— $\frac{\text{PED. CLA}}{\text{BRI}}$

(*C.I.L.*, vii. 864 and 970). These inscriptions may be expanded—*Ped(atura) Cl(assis) Brit(annicæ)*, or *Cl(assicorum) Brit(annicorum)*. *Pedatura* is explained as signifying "a space of ground defined by a certain number of feet."

(2) "A piece of ornamental stone inscribed *Legio XX Vict.*" This inscription has evidently been written in part if not in whole from memory. There can hardly be a doubt it had read *LEG. VI. VIC.* It is very probably identical with No. 4 above, some of the letters on which have been omitted. This supposition is strengthened by the epithet "ornamental" being applied to it, and by its coming in Pennant's list immediately after Nos. 2 and 3, also from the Penicuik collection. The honorary title of the Twentieth Legion was not *VIC.* but *VAL. VIC.*

(3) "An inscription, *IMP. CAES. FLAVIO VALERIO CONSTANTINO PVBLII FILIO INVICTO AVGVSTO.*" Clearly an incorrect expansion of *IMP. CAES. FL. VAL. CONSTANTINO P.F. INV. AVG.*—*P.F.* standing for *p̄io felice*. "This stone," Pennant adds, "was found on the Roman road, in the parish of Hesketh, between Carlisle and Penrith." (*C.I.L.*, vol. vii. 1177.) It does not appear to have been seen by any epigraphist except Pennant. The inscription resembles those found on certain milestones in England. (Cp. *C.I.L.*, vol. vii. 1154, 1157, &c.)

(4) "An inscription, *Imperatoris Cæsari Trajano Hadriano Legio secunda Augusta.*" This is a strange mixture of letters of different characters, and, we may be sure, was never seen on any stone. It is an expansion. As introduced to our notice by Pennant, the inscription has given rise to the impression that the Romans had obtained a footing in Dumfriesshire as early as the reign of Hadrian. "Of all the antiquities Birrens has produced," remarks Hodgson (*Hist. of Northumberland*, part ii. vol. iii. p. 251), "this inscription to Hadrian has the highest historical value, as it proves that if this station was not on Agricola's plan of fortifying the isthmus of the Tyne and Eden, it was put upon it in Hadrian's time." But the impression is unfounded. The inscription was almost certainly transcribed from a Cumberland stone. The Morton MS. in the library of our Society has, among other inscriptions, the following:—

"This inscription is in a house of Jockie Graham's in Eskdale, fixed in a wall, set up, it appears, by the Legio Augusta Secunda in memorial of the Emperor Hadrian."

*IMP. CAES. TRA. HADRIANO . AVG
LEG. II. AVG. F.*

The statement in the *Archæologia* makes it at first sight doubtful if this piece of sculpture should be noticed here. It must, however, be

It may be asked where was "Jockie Graham's" house. Let Camden reply. Writing of Netherby in the "Debateable Land," he says:

"Here lives at present the head of the Grayhams, . . . and in the wall of the house may be read this inscription" (Gough's *Camden*, vol. iii. p. 428):—

IMP. CAES. TRA.
HADRIANO
AVG
LEG. II. AVG. F.

There are strong grounds for believing, as was first suggested by Wilson, that these three inscriptions all refer to one and the same stone. Thus we may safely conclude that the Esk of the Morton MS. is not the Dumfriesshire but the Cumberland river of that name. Those acquainted with the manner in which the different territorial families on the Border were distinguished from one another in the sixteenth and seventeenth centuries will probably see nothing disrespectful in the chief of the Grahams being spoken of as "Jockie." Such appellations were no more so than the tee-names so common in the fishing villages of our East Coast. The Netherby stone had been removed from the wall of Netherby House before Gordon's day, who says, "I could not see it there." Horsley also looked for it in vain.

The Morton MS. bears to have been "presented to the Society of Antiquaries by Susan, Countess Dowager of Morton, in 1827." The few inscriptions it contains were in all probability collected by James, Earl of Morton, 1738-68. He had a distinguished reputation for scientific attainments, and was elected President of the Royal Society in 1764. Unless he took a note of the inscription when a young man, he must have owed his knowledge of the stone to Camden.

(5) "An inscription in memory of one Pervica by her mother Julia. DIS MANIBUS SACRUM. JULIA PERVICAE FILIAE. Mr Horsley, No. LXIV., Northumberland, preserves one of the same kind." We may be certain this is not an exact copy but an expansion of what was supposed to be on the stone. Dr Hübner decides, without any hesitation, that Horsley and Pennant have the same stone in view, although JULIA does not appear in the Northumberland inscription, which is read by Horsley thus:—DIS M. | PERVICAE FILIA F. Dr Bruce gives it the same form as Pennant, except that he substitutes [S]ALVTE doubtfully for IVLIA and adds some supposed letters which he thought might be detected on the base. Mr Haverfield, who has examined the stone, writes:—"There are certain scratches on it, undoubtedly accidental, that have led one man into reading IULIA, the other into reading SALUTE." The monument, which has the figure of a female rudely carved in a shallow niche on the top, is so much worn that the inscription is almost illegible. It came originally from Æsica cemetery, and is now in the Newcastle Museum. (*C.I.L.*, vii. 743.)

On the supposition that the last three and the first of these stones were seen by Pennant neither at Hoddam Castle nor at Birrens, the question arises, Why did he put them in his list of Birrens Antiquities? The only plausible conjecture I can form is, that as the appendix was not published till some years after his visit, the traveller's note-book had somehow misled him.

borne in mind that Birrens and Birrenswark Hill were, and still are, very frequently confounded. Thus, in vol. i. p. 11 of the *Proceedings*, the lower part of the slab, with Victory winged and standing on a globe, which both Bishop Poccoke and Pennant saw at Hoddam Castle, and which they were told came from Birrens, is recorded, probably by Dr (afterwards Sir) Daniel Wilson, then secretary, as "from Birrenswark." Again, in the *Prehistoric Annals of Scotland* we read:—"Mr C. K. Sharpe informs me that in his early years he remembers to have seen accumulations of broken Samian ware and other Roman pottery dug up at Birrenswark"—another example of the same confusion between the names of those two places, for it must have been Birrens that was meant. "Burnswark Hill" is in

'IAPII

Hoddam parish, but Birrens is in Middlebie. In the printed catalogue of the Museum the head is said to be "from Birrens."

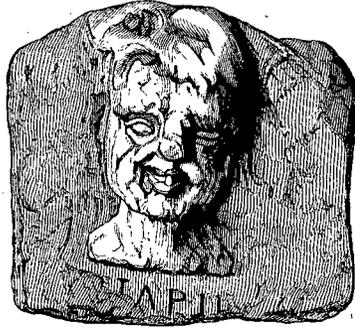


Fig. 20. (Scale $\frac{1}{2}$.)

The relic is described by Prof. Thomson in *Cal. Rom.* as "a mutilated sculptured tablet, with a horned head in relief, apparently that of the rural deity Silvanus." But a careful examination of it throws a doubt on the existence of horns. What have been taken for them lie flat on

(6) "A fragment containing $\frac{AXAN}{CONIS}$." The "fragment" is no doubt the stone seen by Gordon; and the inscription is that recorded by Poccoke and Horsley from "Baron" Clerk's drawing. Horsley states that Sir John intended "to remove it to his own seat." But of its fate we are as uncertain as we are of its character and the meaning of the few letters that have been preserved. (*C.I.L.*, vii. 1077.) Horsley, (*Brit. Rom.* 207) says: "It seems to have been of the centurial kind." Poccoke writes AXSAN and Maitland AXINV.

This exhausts Pennant's list. On plate xlv. he figures the top of "a sepulchral stone, with a rude head on it." He also notices three pieces of pottery, one of which, he states, had on it "part of a boar beneath a tree" with "II TVN above"—clearly a mistake. All these are now lost.

the head—an unusual position for such appendages. From the imperfect inscription we get almost no help: the letters are boldly cut, especially the P, printed in the *C.I.L.* as D.

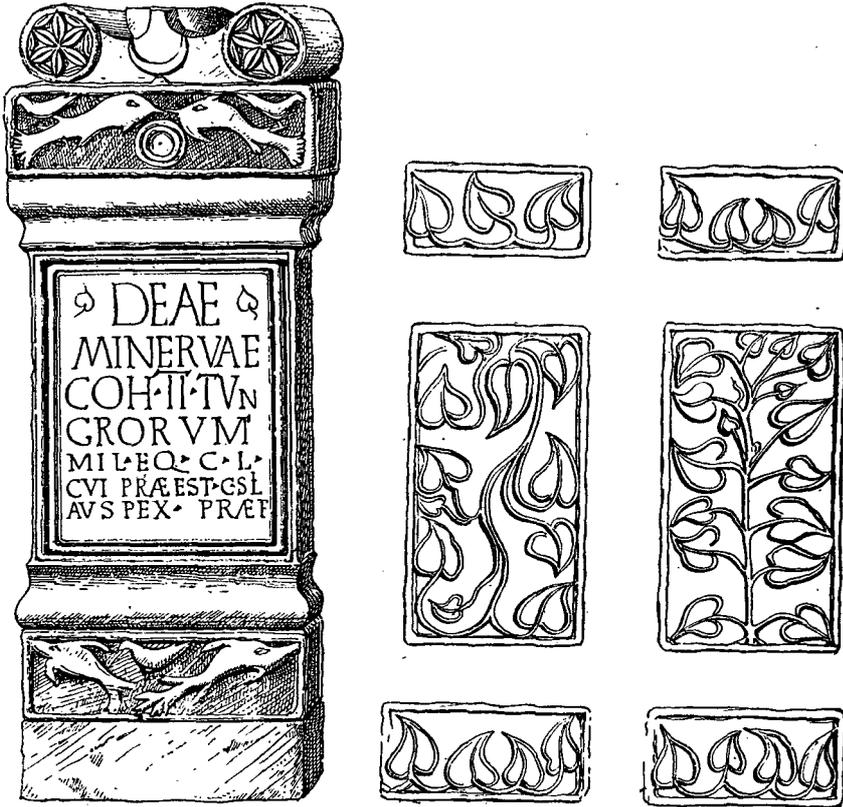
Archæologia Scotica, vol. iii., Appendix, p. 92; Stuart's *Caledonia Romana*, 2nd ed., p. 135, note; *C.I.L.*, 1079.¹

16. (Figs. 21, 22, 23) Dug up by Mr Clow of Land in 1810; for many years after 1813 the pedestal of a sun-dial at Burnfoot House; in a recess in the lobby there, 1895.

A highly ornamented altar, 4 feet 2 inches in height, 1 foot 10 inches in breadth, and about 9 inches in thickness. Narrow beadings enclose the inscription, which is further separated from panels on the base and "capital" by heavy mouldings. On the upper panel are two dolphins, two concentric rings, and two birds; on the lower, two dolphins and one bird. On the top are two large roller-like "volute," with a focus between them. The end of each "volute" is ornamented, and in the space intervening is a crescent. Sculptured on each side of the central portion as well as of the head or "capital" and the base are festoons of ivy leaves. (Figs. 22, 23.)

The letters of the inscription are distinctly formed. For an explanation of difficulties in it and some similar inscriptions bearing the names and designations of the same cohort, epigraphists are indebted to Thomas Hodgson. In a commentary on one found at Castlesteads, Cumberland, he has set at rest almost all questions connected with them. *MIL*[*iaria*], he shows, was applied to those cohorts that consisted of about 1000 men, which were further called *EQ*[*uitata*] when they contained a certain number of horse, the proportion generally being 760 foot soldiers formed into 10 centuries, and 240 horse, in 10 turmæ. Bodies of troops of this mixed character, the composition of which the Romans are said to have borrowed from the Germans, "were particularly well adapted for the garrisoning of a station situated in an open country, and liable to the

¹ In *C.I.L.*, 1061, there is a notice of an altar with a much defaced inscription, described as "Rep. in Falkirk, empta in Burnswark a 1857." This is a curious mistake. The altar in question was found at Craighill, near Croy, on the Antonine Wall, and was presented to the Society of Antiquaries by Sir George Clerk, Bart., in 1857.



Figs. 21, 22, 23. (Scale $\frac{1}{17}$.)

D E A E
 M I N E R V A E
 C O H · II · T V N
 G R O R V M
 M I L · E Q · C · L ·
 C V I P R A E S T · C · S I L
 A V S P E X · P R A E F

frequent inroads of an enemy." The significance of the letters C.L is admitted by Mr Hodgson to be obscure and uncertain. Observing, however, that other cohorts, such as that of the Varduli,—long stationed at High Rochester, and also styled *miliaria et equitata*,—had the corresponding letters C.R attached to their names, which are read on good authority as *Civium Romanorum*, he suggested that, by analogy, C.L may stand for *Civium Latinorum*. "The citizens of Latium," he remarks, enjoyed, it is well known, nearly equal privileges with those of Rome. They served as allies in her army, and constituted the principal part of its strength.¹ On this feature of the inscriptions Mr Haverfield remarks:—"The old republican 'Latin rights,' much modified but still called *Latinitas*, &c., were used under the empire as a partial franchise where the full was not given. In this case the cohort had the privilege that all its soldiers—provincial non-citizens, naturally—at enlistment received full Latin rights. The *Cohortes* . . . C.R had the privilege that all who enlisted received full citizenship."

We may now expand the inscription thus:—*Deae Minervae. Coh(ors) secunda Tungrorum mil(iaria) eq(uitata), c(ivium) L(atinorum), cui praest C. Sil(vius) Auspex, Praef(ectus), [f(ecit)]*; and translate:—"Sacred to the goddess Minerva. The Second Cohort of Tungrians, a thousand strong, of which a due proportion is cavalry, and in possession of the privilege of Latin citizenship, under the command of their Prefect, Caius Silvius Auspex, (erected this)."

This altar was first described in the *Dumfries and Galloway Courier* in 1813. It is also the subject of a communication from A. J. K., "New Kent Road," London, in the *Gentleman's Magazine* for June 1832. The writer states that he is indebted for his account of it to a correspondent, who, it is evident, had a very imperfect acquaintance with the locality, and must have been a stranger there. But it was only on the publication of Wilson's *Prehistoric Annals* that attention was properly directed to the stone.

Dumfries and Galloway Courier, Aug. 31st (with woodcut) and Sept. 7th, 1813. Unpublished (Irvine) MS. (1815) in Library of the Society of Antiquaries, Edinburgh; A. J. K., *Gentleman's Magazine*,

¹ *Archæologia Æliana* (1st Series), vol. ii. pp. 80-92.

p. 603, part i. vol. cii. (1832); Wilson's *Prehistoric Annals of Scotland* (1st ed., p. 397); *C.I.L.*, vol. vii. 1071; Hodgkin, *Arch. Æl.*, vol. xii. pp. 101-111 and plate; Haverfield, *Ephemeris Epigraphica*, vol. vii. p. 333.

17. (Fig. 24) Found at Birrens, date uncertain; in garden of the farmhouse of Land (1895).

A fragment of an inscribed stone, 16 inches in height by $10\frac{1}{2}$ inches in breadth and $3\frac{1}{4}$ inches thick. Of the breadth there appears to be nearly one-half left; how much of the length is uncertain. It is probably a small votive altar slab, sacred to **MA**(rti Victori) or to **MA**(tribus).

Watkin, *Arch. Journal*, vol. xlv. 122; Haverfield, *Ephemeris Epigraphica*, vol. vii. p. 333.

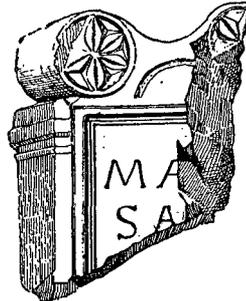


Fig. 24. (Scale $\frac{1}{2}$.)

18. (Fig. 25) "Found about the year 1812 at Birrens," and "in the collection of C. K. Sharpe, Esq." in 1851 (Wilson, *Prehist. Ann. of Scot.*, 1st ed., 1851); "deposited in the Museum of the University of Edinburgh" (Stuart, *Cal. Rom.*, 2nd ed., 1852); deposited by the Senatus of the University in the National Museum, Edinburgh, in 1866.

A much ornamented and solid-looking altar, 4 feet 7 inches high, 2 feet 6 inches broad at the top, and 1 foot $8\frac{1}{4}$ inches across the inscribed centre or "shaft," which is divided from the head or "capital" and also from the base by well-marked mouldings. Next to these, at the top and bottom, are panelled spaces filled with leaf-work of the same character as in No. 16. On the top is a focus and two "volutes," between the ornamented ends of which are three half discs in the same line and of nearly the same size; while above the one in the middle are two others, inverted, decreasing in size, and placed the one within the other.

Almost the only difficulty in the inscription is the letters **C. RAETI**. M'Caul, approving of a suggestion made by Professor Thomson, the

editor of the 2nd ed. of Stuart's *Caledonia Romana*, explains them as *Cives Raeti*, that is, soldiers levied in Raetia, now the south-east of Germany. We know from a stone in the Newcastle museum that Raetian spearmen served at *Habitancium*, the modern Risingham; and their name occurs on another stone that is now a lintel over the entrance to a turret stair in Jedburgh Abbey. Mr Haverfield writes:—"The word *civis* seems here used in one of its later senses: it denotes not citizenship, but mere birth. So on a Cologne inscription *Civis Britanni-*

MARTI ET VICTO
 RIAE · AVG · C · RAE
 TI MILIT · IN COH
 II TVNGR · CVI ·
 PRAEEST SILVIVS
 AVSPEX · PRAEF.
 V · S · L · M

cus—a Briton by birth. See the list in my *Roman Inscriptions*, iii, p. 40."

We may therefore expand and translate the inscription thus:—*Marti et Victoriae Aug(ustae). C(ives) Raeti milit(antes) in coh(orte) secunda Tungr(orum), cui praest Silvius Auspex, Praefectus, [f(ecerunt)]. V(otum) s(olverunt) l(ibentes) m(erito)*: "Sacred to Mars and Victory the August. Raetian citizens, serving in the Second Cohort of Tungrians, commanded by

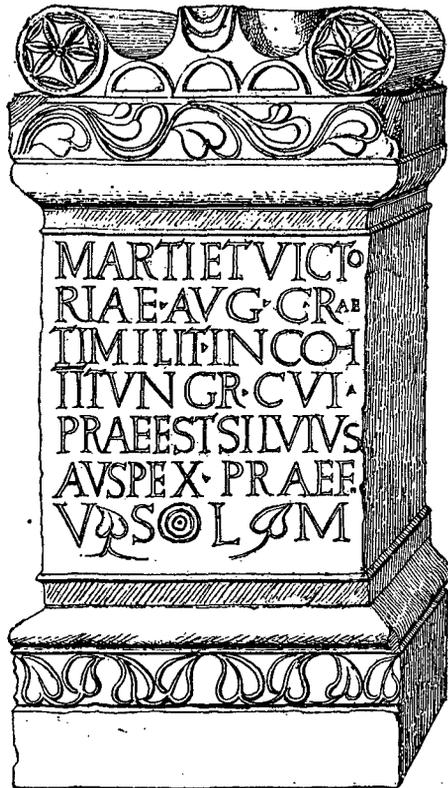


Fig. 25. (Scale $\frac{1}{16}$.)

Silvius Auspex the Prefect, erected this. They performed their vow willingly, deservedly."

Wilson, *Prehistoric Annals of Scotland*, 1st ed., p. 398 ; Stuart's *Caledonia Romana*, 2nd ed., p. 129 ; M'Caul's *Romano-British Inscriptions*, pp. 244-45 ; *C.I.L.*, vii. 1068.

19. (Fig. 26) Same history as No. 14.

An altar, 3 feet 7 $\frac{3}{4}$ inches in height and 1 foot 11 $\frac{3}{4}$ inches in greatest breadth. Above the inscription are four mouldings, alternately square and round; and below are two of the same kind. On the top are the usual focus and "volute," the latter with rosettes on their ends.

Like the two at Hoddam Castle, this altar is dedicated to

DEAE RICAGM
BEDAE PAGVS
VELLAVS MILIT
COH II TVNG
V S L M

a foreign deity, Ricagambeda, of whom nothing is known. It has been proposed to read this name as two words, Ricamaga Bedae, and to take Beda as referring to a district or "tract on the line of the Roman road from Treves to Cologne." This is C. Roach Smith's view; but defiance is bidden to grammar if *pagus* stands in apposition to *Beda*, as it then must do. "Vellau" is a common element in Celtic names.

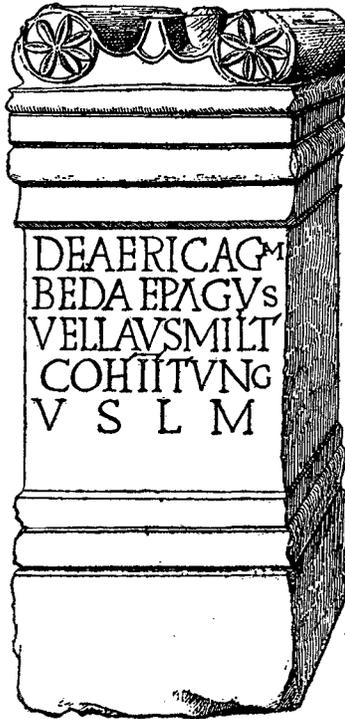


Fig. 26. (Scale $\frac{1}{2}$.)

It will be observed that both in this and the preceding inscription, as well as in the succeeding one, the letters **MIL. EQ** and **C.L** are wanting.

Expanding we read:—*Deae Ricag(a)mbedae. Pagus Vellau milit(ans) coh(orte) secunda Tung(rorum) [f(ecit)]. V(otum) s(olvit) l(ibens), m(erito)*; and translate:—"Sacred to the goddess Ricagambeda. The Vellavian district (=the soldiers from that district) serving in the Second Cohort of Tungrians erected this. They performed their vow willingly, deservedly."

Wilson, *Prehistoric Annals of Scotland* (1st ed.), p. 399; C. Roach Smith, *Collectanea Antiqua*, vol. iii. p. 202; and plate xxxiii. fig. 1; M'Caul, *Romano-British Inscriptions*, p. 241; *C.I.L.*, vii. 1072.

20. (Fig. 27) Same history as Nos. 14 and 15.



Fig. 27. (Scale $\frac{1}{2}$.)

A votive altar, 3 feet high and 1 foot $2\frac{5}{8}$ inches in greatest breadth. The inscribed space is enclosed within a beading of cable pattern, and below the beginning and end of the last line are two crescents. On the top are two plain "volutes," with a focus between them.

Dil(us) for *deis* is frequently to be met with on Roman inscribed stones, and may therefore have been in common use. Nothing else appears to call for remark. The expansion is:—*Dil(us) deal(us) q(ue) omnib(us). Frumentius mil(es) coh(ortis) secundae Tungr(orum)*

DIB · DE
AB · Q ·
OMNIB ·
FRVMEN ·
IVS MIL · COHTI ·
TVNGR ·

[*fecit*]); and the translation:—"Sacred to all the gods and goddesses. Erumentius, a soldier of the Second Cohort of Tungrians, (erected this)."

Wilson, *Prehistoric Annals of Scotland* (1st ed.), p. 398; *C.I.L.*, vii. 1074.

21. (Fig. 28) Found at Birrens, 1886; preserved at Burnfoot House, 1895.

A small altar $10\frac{1}{2}$ inches by 6 inches. The contrast between it and the last described, both in dimensions and ornamentation, is very marked. It has been said that the size and beauty of an altar will be found to bear some relation to the position in the Roman Pantheon of the god to whom it is dedicated, those of Jupiter being the largest and most ornate. But, if we may judge from the number of altars dedicated to her, Fortune was a divinity of great

FORTV
NAE VO
TVM



Fig. 28. (Scale $\frac{1}{4}$.)

importance in the estimation of a Roman soldier. There is another possible explanation of the present disparity. The small altar may be the fulfilment of a vow by a soldier too poor to be able to offer any thing

more valuable, and yet too pious, after his own fashion, to neglect a supposed obligation to Fortune. The larger one was perhaps the gift of the officer in command, or may have been erected by the scarcely voluntary contributions of the whole cohort, although *Silvius Auspex* assumed to himself all the merit.

In the top is a square depression $2\frac{1}{4}$ in. wide, possibly intended to receive a small statue of Fortune. Altars, with brief inscriptions, dedicated both to the greater and the lesser lights of Olympus, are not uncommon; e.g., *Jovi Sereno Sacr.*; *Junoni Sacr.*; *Palladi Victrici*;

*Æsculapio et Saluti; Fortunæ placidae.*¹ (Zell, *Delectus*, 1st ed., 20, 34, 72, 95, 126.) The meaning of the inscription is sufficiently plain.²

¹ Another small altar of same type, very much water-worn, is lying (1895) on a rockery in the garden of Burnfoot House. It was picked out of the Mein some years ago. There is no inscription on it now.

² In the Irvine MS. there are notices of other two inscribed stones, one of which seems to have disappeared. It cannot be affirmed for certain that they belong to Birrens. But till another fort in this part of Dumfriesshire has been shown to yield such monuments, the probability is strong that they do; and they ought not, meantime, to be omitted here.

(1) "Dug up in 1814 in a small vicinal camp on the banks of the Kirtle, near Springkell" (Irvine MS.); apparently lost.

An altar dedicated to Jupiter. Nothing is now known either of it or of the spot where it is said to have been found; and without confirmatory evidence, the existence of the "vicinal camp" can hardly be admitted. Springkell is distant from Birrens about three miles, and the altar might easily have found its way from the station to some place near it, in various ways. We are told by Wilson that "it is of simple form, being relieved only by a small moulding a little way from the top. But the thuribulum [or focus] is very carefully executed, and on the right side is a præfericulum sculptured in relief. The inscription is slightly mutilated." This description of it seems to be taken from the drawing in the MS.

Unpublished Irvine MS. in Library of Soc. of Antiq. of Scot.; Wilson, *Pre-historic Annals of Scotland*, p. 400; *C.I.L.*, vii. 1067.

(2) "A stone taken out of the heart of the wall of the church at Hoddam, Dumfriesshire, when thrown down for the purpose of building a new one, about four months ago" (Irvine MS., 1815); since built into the porch wall of the present church, and still there (1895).

I O M
COH · I · NERVANA
GERMANOR · ∞ · EQ
CVI PRAEEST L · FÆNI
VS FELIX TRIB

A plain stone, 4 feet 2 inches in height and 1 foot 3½ inches in breadth, without any ornament or moulding. It is the second stone we have in Dumfriesshire that marks the presence at Birrens or near it of the First Cohort called the Nervana.

The present parish of Hoddam consists of three parishes united—Hoddam, Line, and Ecclefechan. "It is now (1792)," says the writer of the *Old Statistical Account*, "almost a century and a half since these parishes were thrown into one." At that date a new church was erected, which must have been the one pulled down in 1815. If this inscribed stone was then brought from Birrens, distant about 3½ miles, which is by no means improbable, it would, we may be sure, be but a small part of the materials for the structure got at the same place. On the other hand, if it is not originally a Birrens stone, then a post on Birrenswark Hill, or some other position in the neighbourhood, must have been held by this cohort for a longer or shorter period. Further investigation of the Dumfriesshire camps, or a search for

Proceedings Soc. of Antiq. of Newcastle-on-Tyne, vol. iii. p. 9 ; Haverfield, *Ephemeris Epigraphica*, vol. vii. p. 333.

III. GENERAL REMARKS.

Fragmentary as these records are, they are to be considered as on the whole representative of what would have been discovered at Birrens had the station been left entire. I may, therefore, venture to point out some facts of historical value they seem to disclose.

Analysing the list, it will be found that of the twenty-one stones it contains there were set up :—

In connection with the II. Cohort of Tungrians,	9
By the VI. Legion,	2
By the I. Cohort of Germans called Nervana,	1
By individuals merely named,	4
By the worshippers of Mercury,	1
Without a dedicator's name,	4
	<hr/>
	21

They may also be arranged thus :—

Altars or altar slabs dedicated to various divinities,	10
Pedestals (probably) of statuettes of gods,	4
Small legionary tablets,	2
Large historical tablet,	1
Statuette of local deity,	1
Sepulchral stone,	1
Uncertain,	2
	<hr/>
	21

and comparison of masons' marks, may help to solve the questions thus suggested. Expand :—*J(ovi) O(ptimo) M(aximo). Cohors prima Nervana Germanor(um), miliaria, eq(uitata), cui præest L. Fœnius Felix, tribunus, [f(icit)]*; and translate :—“Sacred to Jupiter, the best and greatest. The First Cohort of Germans, called the Nervana, under the command of L. Fœnius Felix, the tribune, (erected this).”

Unpublished MS. in Library of Soc. of Antiq. of Scot. ; Wilson, *Prehistoric Annals of Scotland* (1st ed.), p. 400 ; *C.I.L.*, vii. 1066.

It may also be noted that a much injured altar or pedestal, 2 feet high, was found last September near the north-west of the station. The capital is broken off, and the side which might have been inscribed, is entirely and, it would seem, wilfully defaced. It is now in the National Museum.

As has been already remarked, the historical tablet is evidence that the prætorian buildings existed as early as A.D. 153. It is of special value as being the only Roman stone yet found in North Britain that bears an exact date. Numerous stones of the same class have been turned up along the Antonine Wall containing the name of the Emperor Pius, but assignable to no particular year of his reign. Near one of the stations on the same wall was found the well-known fragment with the name of Lollius Urbicus as proprætor, or military governor of Britain, which confirms the statement of the ancient chronicler that Urbicus built a wall between the firths of Forth and Clyde in the reign of Pius, but leaves the year uncertain. The conclusion drawn by George Chalmers, that Urbicus was governor of Britain during almost the whole of that emperor's reign,—a conclusion on which he founds an almost imaginary account of his conquests in the North,—is shown by the Birrens tablet to be quite untenable. We now know that another held that office in the sixteenth of the twenty-three years during which Pius was master of the Roman legions. As there is fairly conclusive evidence that Urbicus was governor circa A.D. 140 to A.D. 144, he must have preceded the governor named on the tablet.

In the time of the emperors there was no definite period within which a provincial proprætor had to demit his office. From the nature of the appointment, however, we should expect that changes would be frequently made by the less scrupulous emperors. The prudence of permitting any governor to enjoy prolonged power would also depend on the rectitude of his character. It is recorded, to the honour of Pius, that on being elected emperor he refrained from recalling any of Hadrian's governors; and that his practice was, in the case of those who worthily discharged their duties, to allow them to hold it for terms of seven, or even nine years. Mr. Haverfield notes that the known governors of Britain during the reigns of Hadrian and Pius (A.D. 117–A.D. 161) are Roscius Pompeius Falco, ?121–124; Aulus Platorius Nepos, 124–?; Vinicius Faustinus and Julius Severus, the latter of whom was summoned from Britain by his imperial master and sent to put down a formidable rebellion of the Jews, 129–132; Lollius Urbicus, ?–143 or 4 probably; Papirius Ælianus in 146; and Priscus

Licinius, 161-2. The governor of the tablet must, therefore, have held office during part if not the whole of the interval between the two last named.

Whatever may have been the case in later times, Birrens was at first an advanced position, intended to guard the approach to the southern isthmus against the Caledonian foe. Its proximity to the isthmus, which had been made by Hadrian the northern *Limes* of the Roman province of Britain, its resemblance in plan to *Cilurnum* and other stations on that boundary-line, as well as its early date, all point to this conclusion. It is no doubt the *Blatum Bulgium* or *Blato-bulgium* of the Antonine Itinerary, and along with *Castra Exploratorum* (Netherby) served the same purpose on the west as *Habitancium* (Risingham) and *Bremenium* (High Rochester) did on the east. Whether it may or may not have afterwards been a basis for carrying on operations beyond, is another and a different question, which we have at present no means of answering with any degree of confidence.

During the occupation of Birrens by the Romans, its garrison, so far as we can judge from the evidence before us, was mainly composed of the Second Cohort of Tungrians, a people of Germanic origin, who had for some time been settled in Gaul. They are not mentioned by Cæsar, but are referred to by Tacitus and Pliny. On crossing over into Gaul they seized a large part of what is now the Rhine Province, including the territory of their kinsmen the Eburones, so nearly exterminated by Cæsar, and soon extended their influence over a much larger tract of country. Their name survives in the modern Tongres or Tongern, in the province of Limburg, Belgium. In the decisive engagement between the Romans and the Caledonians under Galgacus, three Batavian and two Tungrian cohorts occupied the post of honour. Agricola, therefore, had either taken the Tungrians with him, or found them in Britain on his arrival there. The First Cohort was long at Housesteads (*Borcovicium*), Northumberland, the eighth station *per lineam valli*; the Second, which seems to have been the more distinguished of the two, or a part of it, is known from an inscription to have been at Castlesteads or Walton House, Cumberland, in A.D. 241. Whether the Second Cohort was at Walton House and Birrens at the same or at

different times we cannot tell. But if it was always kept at or near its full strength, the former, covering only $2\frac{3}{4}$ acres, could hardly have afforded sufficient accommodation for it; Birrens, which was about twice as large, might have done so.

From the inscriptions, we learn incidentally that the soldiers who fought in the ranks of the Tungrians did not all belong to that tribe. The Condrusians and Vellavians may or may not have been Tungrians; they were, however, from the same district. But this cannot be said of those who considered themselves citizens of distant Rhaetia. "This agrees," remarks Dr M'Caul, "with the inference which may be drawn from many sepulchral inscriptions, that the soldiers in the *alae* or auxiliary cohorts were sometimes of nations different from that which gave name to the *ala* or cohort." It is much the same with our own regiments. The Gordon and Cameron Highlanders of to-day must have in their ranks men unconnected either by birth or blood with the districts to which these regiments are supposed to belong.

The *Disciplina* Altar (4) affords very remarkable confirmation of the firm hold the Roman officers of the auxiliary troops had over those under their command, as well as of the methods they adopted for obtaining this hold. It must have been on their initiative that the soldiers of the Second Tungrians paid divine honours to the military discipline to which they were compelled to submit. It is obvious that if such a belief as the erecting of this altar implied could be instilled into their minds, their obedience to the strictest disciplinary regulations required of them by command of the emperor would be rendered both willing and complete.

If Pennant is correct as regards the locality of No. 14, and if the Hoddam slab also belongs to Birrens, then the station was at some time occupied by the First Cohort of Germans, "called the Nervana." This cohort was for a longer or shorter period at Burgh-upon-Sands, near Carlisle, as well as at Netherby, at each of which places a single stone has been met with bearing its name. We have no other trace of it in Britain. It must have played a less important part in the defence of the province than the Tungrians.

The statuette of Brigantia has been thought by some to favour the

supposition that a part of the Birrens garrison may have been native Britons, fighting either by consent or by force under the Roman standards. Tacitus states that the army with which Agricola advanced to Mons Graupius included in its ranks some Britons of distinguished bravery; and in the speech put by the historian into the mouth of Galgacus, the Caledonian chief refers contemptuously to the "numerous Britons" that were in the ranks of his enemies, as lending their lives to support a stranger's rule. "It is possible enough," remarks Mr Haverfield, "that local levies were raised by Agricola. But later the system altered, because these levies, it may be, proved dangerous. During the second and early part of the third century, the auxiliaries of Britain and the Rhine interchanged recruits, and so also probably the legions. British auxiliaries were almost certainly rare in Britain at that period." Besides, the "architectus" of the inscription is an objection to its dedicator having belonged to a body of auxiliary troops. Mr Haverfield, after referring to Ruggiero, i. 646, for examples of persons with that epithet serving in the army, adds, "but no instance is known of an *arch.* attached to auxiliaries." Who Brigantia was has been a subject of discussion, but she is generally recognised as being a native deity. The form of the inscription is that usual in dedications to a divinity; and other inscriptions have been discovered in the country of the Brigantes in which the letters **BRIG** in a connection similar to this are read by Dr Hübner and others as standing for Brigantia.¹ There seems, therefore, ground for concluding that she was the eponymous deity of the Brigantes, a powerful tribe in possession of the greater part of the North of England at the time of the Roman invasion. There were, besides, Brigantii on the eastern shore of Lake Constans, whose capital was named Brigantium or Brigantia; Brigantes in the south-east of Ireland; and on the north-west coast of Spain there was an important seaport called Brigantium, presumably built or inhabited by Brigantes. It is usually held that these were all fragments of some original tribe of Brigantes that had broken up during its progress across Europe.

¹ *C.I.L.*, vii. 200, 203, 875. See also Haverfield, *Ephemeris*, vii. 920. An altar dedicated to *Deae Brigantiae* was found in 1895 at South Shields.

The position of the figure—the Gorgon's head, or what has been taken for one—and the spear have led to the belief that the designer took Minerva as a model for his Brigantia. It may be so. "But," as Horsley remarks, "no mention is made by writers of a winged Pallas" (Minerva). Indeed, except Victory—a deity, representations of whom are found on several Roman stones in Britain—a winged goddess arrayed in Roman trappings would appear to be unknown. Have we here, then, a British eponymic heroine, with some of the characteristics of the Roman Victory—the wings and the globe—which last, however, is in her hand instead of under her foot? If this supposition be taken in connection with the fact that one of the three inscriptions already referred to begins, as expanded by Dr Hübner, *Deae Victoriae Brigantiae*, it becomes almost a certainty.¹ A possible explanation of the presence of Brigantia in the station is, that the rule or influence of the British Brigantes extended as far north of the Solway Firth as Birrens, and that the statuette was the outcome of a local cult on the part of natives of the district who had become subject to Rome, modified, however, as to its form by Roman influences.

The two small legionary tablets show us that, in addition to these auxiliaries, there were Roman legionaries at Birrens. Their numbers were probably few and they had been there only temporarily. The Sixth Legion came into England in the reign of Hadrian. It has left behind it numerous relics of its stay, chiefly in the North of England and in Scotland, having been employed both on the northern and southern isthmuses. York was its headquarters.

Next to the tablets in importance, and more numerous, are the altars and altar-slabs. With, perhaps, one exception, none of them is dedicated to Jupiter, the great god of the Romans. This is possibly to be explained by the circumstance that the greater part of the garrison was composed of foreign troops. It will be observed that when the name of any Roman deity occurs on a Birrens stone, a Roman officer was concerned in its erection. Fortune was one of the *official* deities. Left to themselves, the Tungrians and others usually bethought them of the gods of their own land.

¹ *C.I.L.*, vii. 200.

The ornamentation of some of the altars, especially of the *Disciplina* one, is deserving of attention, owing to the bearing of some of its points on the history of architecture. These, in response to a request, have been made the subject of a separate communication by Professor Baldwin Brown.

The one Birrens sepulchral slab we know of is interesting as evidence that in the course of some of the agricultural or other operations carried on at one time near the station, the cemetery must have been interfered with. This monument, however, and the fragment, now lost, seen by Pennant, can have been but a small part of a class of lapidary records with which Birrens would have enriched us had the clue it afforded been followed up; for it is unlikely that all the other soldiers of the Second Tungrian and other cohorts who died there were laid in nameless graves. Tombstones must have been ruthlessly broken up for building purposes, or, what is by no means improbable, still lie beneath the soil, somewhere "out of the camp." A search, even yet, for the spot might amply repay the cost. There used to be seen on the garden wall of the farm-house of Land three conical and two pyramidal stones, now removed to Burnfoot House, which remind some of the pine-cone ornament not uncommon in Roman cemeteries. To others they have more the appearance of the finials of a seventeenth century gate-pillar, or gable. But even were they only such, they may be survivals in another form of a Roman idea, especially as there is some reason to believe that they were found near to the "procestrium" field, if not within it, where the site of the cemetery might be expected to be found. As the discovery of this site would almost certainly be of importance, it is permissible to hope that, at some future time, and under suitable arrangements, an attempt may be made to find it.

The care with which the buildings in Birrens station had been planned, as revealed by the recent excavations, and the solid nature of the masonry, are sufficient proofs that the Romans did not intend its occupation to be a temporary one. Evidently they had come to stay; but events proved too strong even for them. The evidence of the inscribed stones, with which alone we are now concerned, throws almost no light on the length of time they held it, and leaves it doubtful whether, after it was once lost, it was again occupied by them. So far as we can judge from the

lettering on the stones, all the more important of them belong to the second century. Of the inscriptions on the others, it would be unsafe to say whether their apparent degeneracy is due to less skilled workmanship or to a later period.¹ To the remains of the buildings, and an examination of the mounds that surround them, we must look for any information on this subject it may be still possible to obtain.

¹ On some of the features in the lettering of the stones that deserve special notice, Mr Coles writes thus :—

“There is wide diversity of character in the examples of letter-cutting, as shown in the altars and stones found at Birrens. Between the picturesque rudeness of the inscription on the altar dedicated to Fortune by the Nervian Cohort, and the sharp, well-proportioned, and mathematically measured letters on the large mural slab so recently found, there is ample space for peculiarities, some of which, when grouped, appear to form types of fairly constant character.

“On comparing, for instance, the altar dedicated to Fortune with that to the goddess Harimella, the differences are very obvious. In the first, the letters are long, slender, not always by any means perfectly straight, and yet they are finished at the top and sides with a clear-cut angle. On the other altar, with the exception of the word DEAE, few of the letters have this finishing touch ; they are broad, blunt, and fairly regular. The letter T in many of the inscriptions is cut in a peculiar manner, the ends of the top-stroke being chiselled in an oblique line, and not at right angles ; and the same remark applies to the forming of the long horizontal line above the cohort number.

“It is the formation of the letters on the large (and unfortunately much-broken) Inscribed Stone that presents clearest evidence of the care and accuracy with which this finely-prepared surface was chiselled. The sculptor, having lightly scratched the two parallel lines to bound his lettering, which varies from $4\frac{1}{4}$ inches in height to $2\frac{3}{8}$ inches, takes compasses and measures off all his O's, S's, P's, Q's, and other curved letters by drawing two circles, the second about $\frac{1}{4}$ of an inch to the right of the first. This gives him the required width. These circles, of course, coincide at top and base—the result being a very wide O indeed, its breadth greater than its height ; and the depth of the channel has been marked in a like manner by striking a half-circle from each of the centres, the left hemisphere being struck from the right centre, and the right from the left centre.

“In exactly the same way, the two deep curves of the S are produced ; the P's and R's, curiously enough, are made much wider in the channel than the lines of even the largest O.

“The spacing of the letters is not carried out with the view of making each

letter appear to occupy an equal width :—witness, particularly, the E and T, scarcely more than one-quarter the breadth of the O.

“ The stops used between words are usually the sharp isosceles triangle, but on the Antonine slab they are cut to an extreme length and with an unusual freedom and grace. The ivy-leaf stop is used alone on the altar dedicated to the guardian deity of Augustus, and on several others in combination with the common triangular stop, the same combination being found also upon the sepulchral slab now at Knockhill.

“ The omission of even important letters, of parts of letters (the stroke of the A being the commonest), and the placing of small letters within a large one, so noticeable in the altar-pedestal dedicated to Mercury, are among the many features of Roman Inscriptions familiar enough to students of this subject.”

IV. THE GENERAL STRUCTURE AND ORNAMENTATION OF THE ALTARS. BY PROFESSOR BALDWIN BROWN, F.S.A. Scot.

The Roman altars found at Birrens exhibit, as a rule, the normal elements of a moulded base, a parallelepiped central portion or “die,” offering a field for the inscription, and an upper member. For this upper member Horsley employed the word “capital,”¹ and this nomenclature has been commonly adopted. Strictly speaking, however, it should be called a “cornice.” It was not necessary for the ancient altar to have any architectural character at all, but when it was so constituted it generally took its form and profile from the podium or pedestal ; and Vitruvius, in enumerating the elements of the profile of such a podium, uses for the top of it the technical term *corona*, appropriate to a cornice.² The occurrence under the upper mouldings of a row of dentils, as in the Birrens altar No. 4, or a triglyph frieze, as in the fine altar at Pompeii shown in fig. 29, is proof that the Romans themselves took this view. What the pedestal of the altar has to support is the gift, and, in the case of a burnt-offering, the fire kindled beneath it. These might be laid simply on the flat top of the altar, but some arrangement for holding them was a very common addition ; and this might take the

¹ *Britannia Romana*, Bk. ii. ch. 1.

² *De Arch.*, iii. 4, 5.

form of a simple hollow trench or sinking on the top of the altar. Generally, however, some superstructure, more or less elaborate, was added. In some representations of early Greek altars of masonry, such as that on the François vase at Florence (fig. 30), two side ridges are built up, between which the offering was laid, while, later on, these side ridges develop into cushions (*pulvini*) worked in front into volutes, like the *pulvini* of the Ionic capital. Fig. 29 gives the scheme of an architecturally treated Italian altar of this kind. These rolls or cushions form the normal finish of the tops of Roman altars existing in this country, and appear, though often in degenerate forms, on most

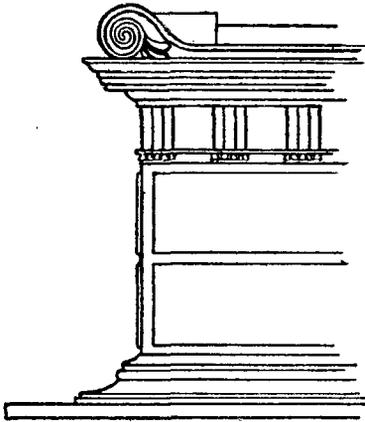


Fig. 29. Altar at Pompeii, c. 80 B.C.
(Overbeck, *Pompeii*,⁴ p. 112.)

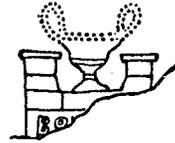


Fig. 30. Altar on François Vase,
6th century B.C.

of the examples found along the Wall. The place of the spiral volutes is, however, taken by round medallions or rosettes, different forms of which are seen on the Birrens altars, and which occur abnormally on the *sides* of the *pulvini* on No. 4. Besides these lateral guards, the hollow may be further constituted by ridges, continuous or interrupted, along the front and back edges of the altar top, as on No. 14. On no fewer than seven of the Birrens altars we find a bason-shaped sinking on the top of a projection, round in plan, rising between the rolls, and on Nos. 11, 19, and 4 this projection is carved into the form of a *patena*,

in the former cases with a central boss inside, in the latter with two handles set tangentially to its circumference. (The stone is broken away towards the back, but sufficient indications of the second handle exist.) The hollows in question are generally termed *foci*, in correspondence with the Greek “ἑσχάραι,” which we are told by the Scholiast on *Eur. Phœn.* 274 are the “κοιλώματα” of the altars “ἔνθα τὸ πῦρ ἤπτετο.” They undoubtedly served as “hearths” for the fire in the case of burnt-offerings; but it has been urged, with much show of reason, that when the sinking is bason-shaped, as on the class of altars so largely represented at Birrens, or is even fashioned into a stone patera, it is meant to receive libations, or at most the blood of the victim, and not a fire to consume the offering.¹

Of the examples here noticed, the small unscribed altar (No. 5) is, in regard to proportions and mouldings, the best. The “die” or body (*truncus* is the Vitruvian word), which has never received its inscription, is bounded above and below by ogee mouldings, the lower of which is joined by several fillets and a cavetto to the plinth, while the upper one carries the corona, which is here slightly hollowed out for the sake of displaying carved ornament. Most of the other Birrens altars show the same elements of structure, though in simpler and ruder forms, and they are in design and execution very fair specimens of their class. Though probably, as a rule, not intended to be seen from the back, they show in the case of Nos. 4, 5, 7, 14 mouldings or carving on the fourth side.

The various parts of the altars are enriched with devices, some of which are purely ornamental, while others have a significant character. On Nos. 16, 17, and 20 the inscription is bordered with a moulding; the cable ornament appears on Nos. 4 and 20; the three semicircles on the superstructure of No. 18 are degenerate forms of sunk niches, which often occur in more distinct shapes on altars found near the Wall (*e.g.*, *Lapid. Sept.*, Nos. 849 * ff.). A row of dentils appears under the cornice on No. 4, and on the top of this altar are two lines of a chevron or zigzag ornament, that is pretty common on Roman altars, though not

¹ Article “Altar” in the new issue of Pauly’s *Real-Encyclopædie der Classischen Altertumswissenschaft*, i. p. 1667.

represented elsewhere on the Birrens examples. It is constituted by a series of triangular-shaped depressions, the spaces between which show up as ridges. These depressions can be arranged to form stars and other patterns, and the ridges left between them may be sharp or broad. The style of work resembles the well-known "chip-carving," and both the chevrons and stars are interesting as the prototypes of some patterns familiar in Norman ornamentation. A Roman altar recently found at Lanchester, Co. Durham, is, from this point of view, especially noteworthy.¹ It is worth remarking that the chisel strokes which cut these depressions are the same as those which form the extremities of the letters, such as the ends or "serriffs" of the I and the V, in the inscriptions, as well as the triangular-shaped stop that occurs on other altars besides No. 4. The ornament may in this way have really grown out of the execution of the lettering.

Some other features of the enrichment on No. 4 are not a little curious. This handsome altar, which, from the character of the dedication and the lettering, may date from the middle of the second century A.D., bears on the centre of its front the representation of an arched niche with archivolt mouldings springing from plain chamfered imposts, that are supported by baluster-shafts with moulded caps and bases and a double bead girdling them in the centre. The niche is not actually hollowed out, but what would be the semi-dome of it is treated with the fan-shell enrichment, while the part below the moulded string-course exhibits two rectangular panels in mitred frames. The niche resembles those that, on a Roman tombstone, would enclose a relief of the deceased; and, unless it be here a mere piece of ornament without special significance, it must be supposed to indicate some distinction in the objects it enshrines. These panels look at first sight like representations of doors or windows, but such features in this position would not be architecturally conceivable, and the mitred corners, which are very distinct, indicate an original of wood. Panels of somewhat similar form occur on the sides of the lids of sarcophagi of the Imperial period, where they are intended as cartouches to receive monograms or devices. If the extra lines in the framing, on the sides on which they join, have

¹ *The Illustrated Archaeologist*, Sept. 1893, p. 121.

any intention, they may indicate that the panels are joined in pairs like a folding diptych. The three small upright rods underneath them are puzzling. This part of the altar is shown on a larger scale in fig. 31.

The architectural forms of the baluster-shafts, the impost, and the archivolt mouldings are interesting in view of the appearance of precisely similar features in Saxon buildings. The Birrens altar in question will be a document of importance in connection with the study of pre-Conquest architecture. Turned baluster-shafts support a chamfered impost in the porch at Monkwearmouth, of about 675 A.D.; the rolls on the archivolt mouldings remind us of the tower arch at Stow, near Lincoln; while the profile of the balusters is curiously like that of some shafts in the windows of the Saxon tower at Barton-on-Humber. The moulding between the two bands of chevron on the corona seems an astragal, in which the beads are not unlike small turned balusters, strung in the direction of their length. In this connection it may be noted that the use of small balusters as a motive of ornament occurs on a (presumably) Saxon stone that formed part of old Jarrow church, and is now preserved in the porch of the modern building. Here the balusters, about 3 inches high, are ranged side by side, as in a sort of railing. This Roman altar is again valuable here for comparison.

In the case of many of the motives of enrichment found on the Birrens altars, we are uncertain how far they are significant, and how far purely decorative. This is the case with the dolphins and birds on No. 16. Certain animals were, we know, adopted as badges by some of the legions; and of those quartered in Britain, the twentieth carried a boar, the second a Pegasus and a sea-goat.¹ In the list of these legionary devices given, so far as they are known, by von Domaszewski, in his tract on the Roman ensigns,² the dolphin does not, however, appear. The dolphin is, of course, familiar as an attribute of the sea-god, and one curled round a trident occurs on a handsome altar, dedicated to Neptune, at Newcastle. Here we find it, however, on a stone inscribed "to the goddess Minerva," while the rural god Silvanus has

¹ *Lep. Sept.*, No. 33.

² *Die Fahnen im Römischen Heere*, p. 55.

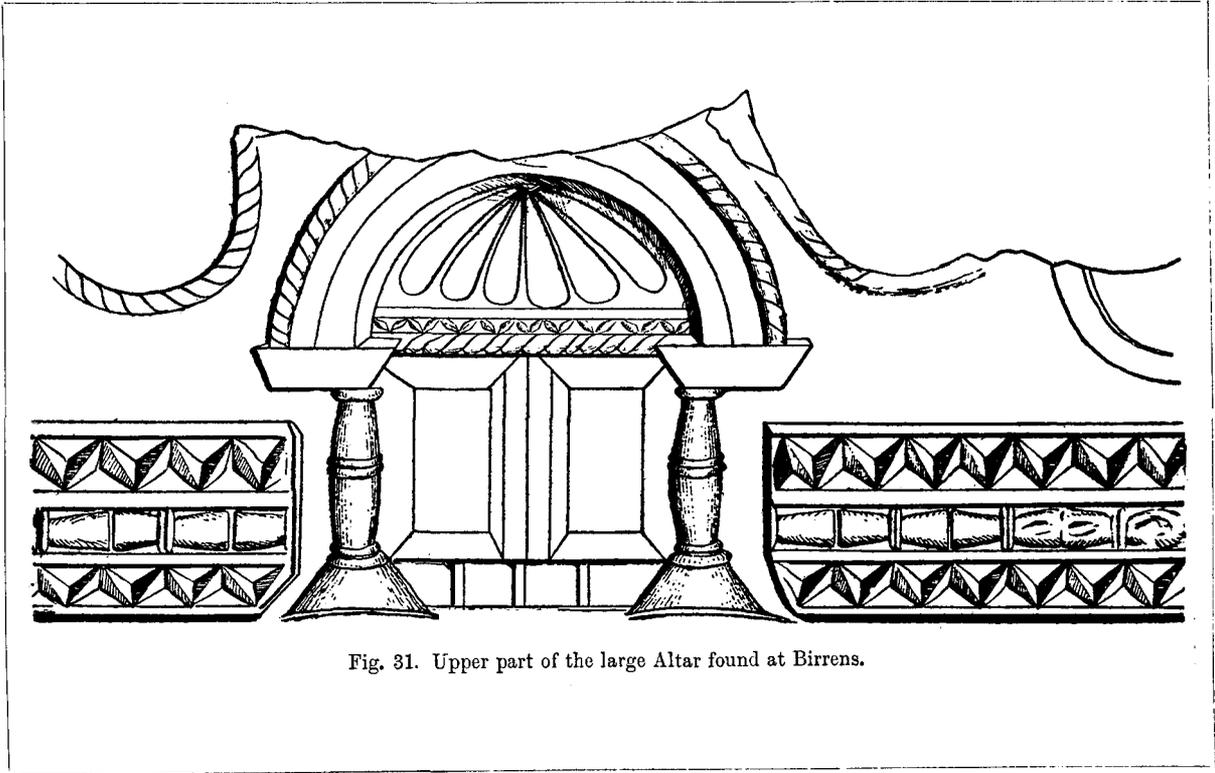


Fig. 31. Upper part of the large Altar found at Birrens.

two dolphins on his altar, in the example No. 682 of the *Lapidarium Septentrionale*. The editors of the last publication note that the meaning of the "not uncommon" device is doubtful, and it is probably, in many cases, purely decorative. The ancients were fond of the creature, and dolphins are familiar elements in Pompeian ornamentation. They formed part of the regular adornment of the *Spina* in the Roman circus, but here perhaps had reference to the horse-loving Neptune. The ivy plant is, again, of uncertain significance. On the altars it occurs in the form of single leaves in the field of the inscription on Nos. 7, 8, 16, 18, and in continuous scrolls, or for the filling of panels, on the front of 18 and the sides of No. 16, and its use here is no doubt derived from its appearance as part of the normal decoration of the Roman standards. Silver ivy-leaves hung from the streamers fluttering at the ends of the cross-piece near the top of the *signum*, that may have held the designation of the particular body of troops to which it belonged (fig. 34). The reason why this plant, with its Bacchic signification, was used in Roman military art does not seem apparent, but it is worth noting that ivy leaves in precious metal were lavishly used as ornaments (though still with Dionysiac suggestion) in the great *pompa* of Ptolemy Philadelphus, described for us in Athenæus.¹

On No. 5 the lateral *pulvini* have carved along them well executed thunderbolts. This device appears so frequently in Roman military art that it may be used here without any special ascription. It is found, however, on altars inscribed to Jove;² and as the edge of the corona is enriched with a row of the leaves of the oak tree, sacred to Jupiter, this uninscribed altar may have been made in honour of that divinity. On one side of No. 7 there is seen a bird standing upright, with folded wings, upon what looks like a ball. This would at first sight suggest the eagle. The eagles, however, on Roman standards and coins with military types have their wings raised or spread, and the creature is more probably intended to stand for the cock, the bird sacred to Mercury, whose name is on the stone. It must be confessed that the characteristics of the bird, which are rendered well enough on a slab with a figure of Mercury given in *Lapidarium Septentrionale*, No. 649, are here

¹ *Deipn.*, v. 27.

² *Lap. Sept.*, No. 424.

lamentably wanting. The club of Hercules, it may be noted, appears in a corresponding position on an altar dedicated to that hero (*Lap. Sept.*, No. 549).

The instruments of sacrifice are carved in their usual positions on the sides of several of the altars. The names and uses of some of these are matters of controversy. The axe (*securis*) and knife (*culter*, or, more technically, *secespita*) for slaying and cutting up the victim are shown on No. 4. The jug on No. 7 and the two-handled vase on the front of No. 5 are probably for the wine used in libations. The former used to be named *præfericulum*, but it has been pointed out that Festus distinctly tells us that this sacrificial vessel was without a handle, and, in default of a more technical term, the jug may be called by the general name *urceus*. The shallow, saucer-like vessels, figured with a handle on Nos. 4 and 7, and without a handle on the other side of the latter stone, have given rise to some discussion.¹ *Patera* is the generic name of such vessels. The kind without a handle resembles the Greek *phialé* used for libations of wine, and the other is a specially Italian form. That both forms of vessel were used in Roman sacrifices is sufficiently proved by the representation in fig. 33, which is taken from a relief on an altar at Pompeii supposed to be dedicated to the genius of Augustus Cæsar. Here the principal personage, with head partly veiled, according to the *ritus Romanus*, is preparing to offer a libation from a *phialé*, while the youthful attendant, or *camillus*, is holding in one hand a wine-jug, and in the other a *patera* with a handle like that carved on No. 4. The use of these two implements at a single sacrifice makes less surprising their appearance on one and the same stone, No. 7. It is suggested in Baumeister's *Denkmäler* (Art. "Opfer") that the *phialé* form was for the blood of the victim, and that it may have been the enigmatical *præfericulum*. There seems no evidence for the former, while as to the latter, the description of it in Festus as *patens summum, velut pelvis*, seems to point to an open bowl or bason of some depth rather than a saucer-shaped vessel like the *phialé*. Attention may be called to the elegant design and enrichment of the *patera* on the side

¹ See articles "*Patera*" and "*Simpulum*" in Smith's *Dictionary of Antiquities*, ii. pp. 350, 675.

of altar No. 4, the handle of which ends in a ram's head (see fig. 9, *ante*), and to the tasteful double handles of the stone *patera* on the top of the same altar, the form of which is given in fig. 32.

Two other motives of ornament the altars seem to have borrowed from the military ensigns: these are the crescent and the round disc. The crescent is found on Nos. 18, 20, 11, and 16, as well as, between two small rosettes, on the back of the corona on No. 4. On the first it appears to be doubled, on the three last it has below it a sort of projection, serving as a support. The device occurs almost universally at the bottom of the row of insignia attached to the Roman standard, and is shown in that position as double in a representation of an ensign given

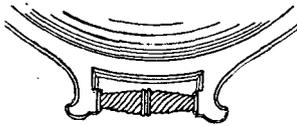


Fig. 32. Handle of Patera in Stone on the top of No. 4.



Fig. 33. Scene of Sacrifice from Altar at Pompeii. (Mazois, Ruines de Pompeii, iv., pl. 15.)

in Gruter, p. mxxx. 9. It occurs also elsewhere in Roman military art, as on horse-trappings and shields, and is explained as an *apotropæum* or charm. The form below it in the three instances mentioned above is probably a reminiscence of the tuft attached to the staff of the ensign, which in the normal representations of the Roman standard comes just below the crescent. Fig. 34, from Trajan's column, shows almost the exact form. The round discs, with rim and central boss, on the same *signum*, were commonly-bestowed military orders. When granted to individuals, they were worn on the breast, as may be seen in

the illustrations from Roman tombstones in the article "Waffen" in Baumeister's *Denkmäler*. When gained by bodies of troops they were attached, one above the other, to the lance or standard-pole, of which they formed the most conspicuous ornament. The material in this case was silver. It is natural to find these discs introduced, like the



Fig. 34. Roman Signum from Trajan's Column (Frcener, pl. 51).

crescents, as a form equally familiar to the military eye, into the ornamentation of the altars connected with the Wall. One occurs in the lowest line of the inscription on No. 18, another between the upper pair of dolphins on No. 16, while the discs, with or without rosettes, on the ends and sides of the *pulvini*, may be regarded as imitations of the same objects. The distinctive name usually given to these discs is *phalerae*, but this word should have a larger sense, and include the crescents as well as bosses in relief. *Phalerae* are in Roman art primarily horse-trappings, and appear in the form of round plates, with Medusa heads, heads of lions, and the like, in bold projection. Polybius tells us that *phalerae* were granted as rewards to the cavalry, while foot-soldiers received *phialae*. Later on this distinction must have been lost, for inscriptions tell of innumerable donations of *phalerae* to soldiers of both arms, whereas the form of them, when affixed to the standard-pole, is nearly always that of the *phialé*. Lastly, the ring on the fragment of an inscribed stone No. 9, though damaged in the lower part, looks less like a wreath than like a torque. Torques were granted as prizes of valour in the same way as *phalerae*, and might with equal propriety appear as ornaments on the stones, where examples of them are rare but not unknown.¹

¹ e.g., a relief in the Palazzo Albani; Zoega, *Bassirilievi*, i. 16.

V. THE POTTERY, BRONZE, ETC. FOUND AT BIRRENS. BY JOSEPH ANDERSON, LL.D., ASSISTANT SECRETARY AND KEEPER OF THE MUSEUM.

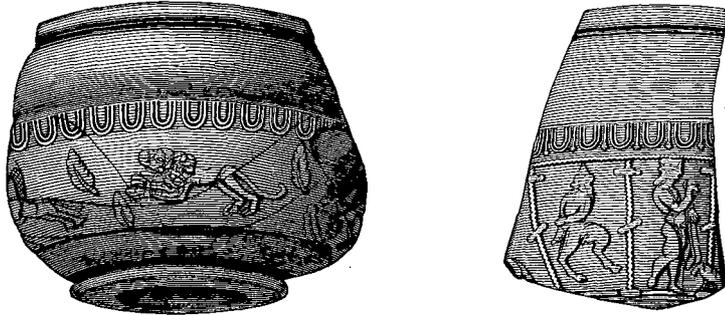
Pottery.—The pottery found at Birrens is of the character usually found on sites of Roman occupation, and of which we have in the Museum a considerable collection from Inveresk, in Midlothian, Newstead, in Roxburghshire, and other places, chiefly along the line of the Wall of Antoninus. It consists for the major part of a coarse, yellowish earthenware, the fragments of vessels of considerable size, and mostly thick and soft in texture. A finer and thinner ware of a stone-grey colour passing into black or bluish-black is very abundant, but the most noticeable on account of its brilliancy of colour, and the profusion and fineness of its decoration, is the lustrous red ware commonly but erroneously termed Samian. Upwards of 500 pieces of this ware have been recovered. Owing to its brittle nature and the convexity of the vessels, it occurs mostly in small fragments, the only large pieces being those which form the bottoms, strengthened by the basal rim. The shapes of the vessels are mostly bowls, of more or less convexity, and wide shallow platters, presenting various degrees of inclination of the sides. The bowl-shaped vessels with convex or bulging sides are usually highly ornamented; the more conical bowls or cups are usually plain. The platter-shaped dishes are also plain, with the exception of an ornamented ring round the centre of the bottom inside, which often presents an appearance like what is termed engine-turning. A few of each of these different varieties of vessels have been partially reconstructed by piecing together such fragments as were found to fit each other; but as it is to be supposed the vessels were originally broken before being thrown away, the complete reconstruction of any vessel is not to be expected. The following is a description of the most complete examples:—

Bowl-shaped vessel, thin and hard in texture and bright red in colour, $7\frac{1}{2}$ inches in diameter and $3\frac{1}{2}$ inches in height. Under the usual festoon border, the surface of the bulge of the vessel is divided into panels, in the centres of which are circles enclosing well-modelled figures, one being a man seated, another a dancing figure, &c.

Large bowl-shaped vessel about 8 inches diameter at the mouth and 4 inches in height, of which the bottom and one side have been reconstructed. An inch and half below the brim is plain, then comes a festoon border, and beneath it a band, $1\frac{3}{4}$ inches deep, with figures in relief of a lion and man on horseback, with leaves between the figures. It is shown in fig. 35.

Bowl-shaped vessel of similar form, but more globular in the bulge, $6\frac{1}{2}$ inches in diameter and $3\frac{1}{2}$ inches in height, ornamented under the usual festoon border by groups of animals.

One portion of the side of a bowl, the bulge under the festoon border divided into compartments, each containing a figure $2\frac{1}{4}$ inches in height. Only two of these remain. One is apparently a satyr, the other perhaps a young Hercules. It is shown in fig. 36.



Figs. 35, 36. Fragments of 'Samian' Bowls. ($\frac{1}{3}$.)

Many fragments of bowls ornamented with hunting scenes of the stag, the lion, the bear, and the wild-boar, one of which is represented in fig. 37. Others show floral scrolls and figure subjects of various kinds, one being of that obscene character indicated by Pliny—"In poculis libidines cœlare juvat, ac per obscenitates bibere."

Bowl or cup (fig. 38), with sloping sides, $2\frac{3}{4}$ inches in height, and 6 inches diameter at the mouth, tapering to a diameter of $2\frac{3}{4}$ inches across the bottom, which bears on the inside the potter's mark, ALBVC.F. The exterior is perfectly plain, except for a turned line just under the rim, and another about half the height of the vessel. On the outside near the rim on one side are the owner's marks scratched with a point, MI.

Bowl or cup of similar shape, $5\frac{1}{4}$ inches diameter at the mouth, tapering to $2\frac{1}{2}$ inches diameter at the bottom. The exterior is perfectly plain,

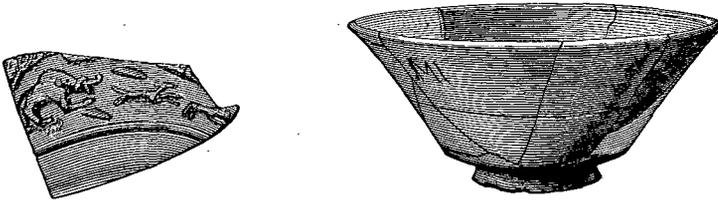
and has one turned line encircling the circumference midway between the top and bottom.

Several portions of vessels with sloping sides, but wider in the bottom and more platter-shaped, the sides from 2 to 3 inches high.

Perpendicular rim of a large bowl, 9 inches in diameter.

Perpendicular rim of a bowl of about the same size, with portion of an inscription in relief under the festoon border, *MVNAL*.

Wide, shallow, platter-like dish, with slightly concave bottom and sloping sides, $14\frac{3}{4}$ inches diameter at the mouth, $4\frac{1}{2}$ inches across the basal ring of the bottom, and standing $2\frac{1}{4}$ inches high. It is unornamented except by a band of fine concentric circles of lightly-impressed markings round the central convexity on the inside of the bottom. Across that convexity is the potter's stamp, *VAREDVFATIP*.



Figs. 37, 38. Fragment of 'Samian' Bowl and Cup reconstructed. ($\frac{1}{3}$.)

There are a dozen portions of the bottoms of similar vessels, none of which show much of the sides, and all being of somewhat smaller size.

Wide shallow vessel over 8 inches diameter, and shaped somewhat like a mortarium, with a broad, heavy, turned-over rim, the sides of the vessel covered with broad shallow flutings carried round it horizontally.

Small cup-shaped vessel, $2\frac{3}{4}$ inches diameter and $1\frac{1}{2}$ inches in height, with broad turned-over rim.

Portion of the upper part of a small jar-shaped vessel, with wide mouth and bulging sides, ornamented with vertical flutings. The ware is excessively thin.

The black ware, being for the most part very thin and brittle, is more difficult to deal with when it is a case of many vessels of similar forms reduced to innumerable fragments. Hence the attempts at reconstruction have produced more partial results.

The vessels are for the most part jar-shaped, with flat bottoms, bulging

sides, a wide short neck above the shoulder, and a more or less everted lip. There are, however, many variations in the general form. The ornamentation is mostly in straight lines, crossing each other diagonally on the bulge of the vessel, the space on the shoulder and towards the bottom being left plain. Besides these jar-shaped vessels, there are a number of shallow platter-like vessels, shaped somewhat like the saucer of a flower-pot. None of these show any ornamentation, except occasionally a pattern of diagonally crossing lines on the sides. On one bottom of a jar there is scratched a sign of ownership, *π v*.

There are one or two pieces of another variety of black ware, the colouring of which is more superficial. One vessel of this description is ornamented with small knobs of white slip, contrasting strongly with the black surface colouring.

Another curious little vessel is a triplet of small globular jars about 2 inches in diameter and $1\frac{1}{2}$ inches in depth, luted together, and having holes pierced through the contiguous sides in each pair of the adjacent vessels near the bottom for communication.

A few vessels of a bluish-grey ware occur. They are of much the same shapes as those of the darker-coloured ware already described, but somewhat thicker and coarser in texture.

By far the largest number of fragments are those of a coarse red, yellow, or whitish ware, unglazed. The bulk of this ware is composed of vessels of considerable size and thickness, such as amphoræ, dolia, mortaria, &c.

The amphora is a large vessel of oblong ovoid shape with a bottle-shaped neck, and one or two large looped handles connecting the neck with the shoulder.

The dolium is a large vessel, often of larger capacity than any amphora, more globular in form and with a wider mouth. These two classes of vessels served the same purpose, both in commerce and in household use, for which casks and barrels are now used.

The mortarium is a wide shallow dish, of reddish, yellowish, or whitish ware, varying from 12 or 14 inches to 6 or 8 inches in diameter. They are generally of considerable thickness, and the interior is usually roughened with comminuted fragments of quartz and other stones, pre-

sumably with the object of obtaining a triturating surface. Some of them bear evidence in their blackened exterior of having been used as saucepans, and they usually have a shallow spout made over the broad curved brim on one side, and on the opposite side there is frequently a rudimentary handle by which to tilt the vessel up. One has on the rim the potter's mark SARR and another AVI.N twice repeated.

There are some fragments of a thin whitish ware, one of which is part of a jar-shaped vessel with wide neck and bulging sides. It has a slight glaze on the upper part, and a projecting mask of a rudely-

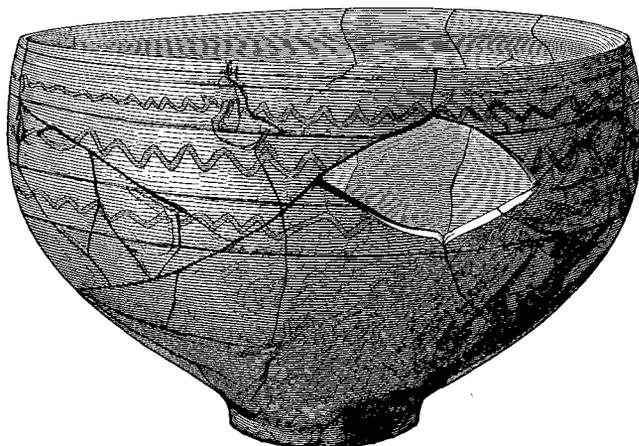


Fig. 39. Large Oval, Bowl-shaped Vessel. ($\frac{1}{3}$.)

shaped face, and bears the owner's mark scratched with a point, TPVPP.

Another fragment of a vessel of whitish or yellowish-white paste shows a flat bottom with the remains of a projecting foot. The sides of the vessel have been nearly perpendicular and ribbed horizontally.

A large oval bowl-shaped vessel (fig. 39), measuring $10\frac{1}{2}$ inches by 9 inches across the mouth and $6\frac{1}{4}$ inches in height, is of reddish-brown paste, soft and unglazed, and ornamented under the rim by three irregularly waved or undulating lines drawn with a point in the soft

clay, with straight lines on either side, running all round the circumference of the bowl.

The same style of ornamentation is shown on fragments of soft unglazed ware found in the rooms of a Gallo-Roman house in the Morbihan explored by the late James Miln. With it there were found portions of vessels of the red lustrous ware, and coins of Tetricus, Gallienus, Victorinus, and Constantine I., so that the date of the pottery must be assigned to a period as late at least as the first quarter of the fourth century.¹

The general question of the source or sources of supply from which the pottery used at Birrens was derived is not fully answerable from the evidence at our disposal. Negatively, it may be presumed that it was not made in Scotland. At least, we have not discovered any potteries of the Romano-British period on this side of the Southern Wall. But quite a number of extensive groups of potteries of that period have been discovered in England—in the Upchurch marshes, along the banks of the Medway in Kent; in the New Forest, Hampshire; around Colchester in Essex (from which we have a very representative collection in our Museum); and along the Nen in Northamptonshire, where Mr Artis traced the remains of the pottery kilns of "The Ancient Durobrivæ" for upwards of twenty miles. The varieties of pottery vessels thus manufactured in England were, however, chiefly confined to the hard black and greyish ware with smoke-tinted fabric, and to a less extent to the soft red and yellow unglazed ware, and possibly also the whitish ware. Almost all the vessels of all these varieties found at Birrens may be matched by the known products of these kilns in the South of England, and the most natural inference is that they may have come from these English potteries. Much the same kinds of ware, however, are abundantly found in Belgium and the North of France, and there can be no doubt that many varieties of ware almost identical in form, texture, and colouring were in general use, and locally manufactured over a large portion of the Roman empire in the West of Europe, both before and

¹ *Archæological Researches at Carnac*, 1877, p. 40. Mr Miln also records the curious fact of the survival of this style of decoration on nearly all the Breton pottery of the last two centuries.

after the conquest of Britain. There is as little doubt that these products of the local potteries had their local characteristics, so that it might be possible to distinguish the black or grey ware of Britain from that of Gaul, and even to discriminate between the products of the different potteries. But I cannot pretend to do so; and I rest satisfied with the conclusion that this ware found at Birrens may have come from any of those potteries.

But with the red lustrous ware commonly called Samian the case is different. It is a very peculiar ware, made of a finely-levigated paste almost coral-red in colour, and with a brilliantly lustrous surface. The finer descriptions are exceedingly hard, and correspondingly brittle; and the fineness of the texture and shapes of the vessels, and the high artistic character of their decoration, remove them altogether from the common classes of pottery. Yet, beautiful as the ware is, and abundant as it is,—for it is found in greater or less abundance on every Roman site in Western Europe, and occasionally even far beyond the bounds of the Empire,—there is almost nothing known of the history of its manufacture, and even the methods by which it was produced are matters of dispute. Some writers maintain that the lustrous red of its surface is produced in the firing by a metallic oxide, others that it consists of almost imperceptibly thin layers of silica, rendered fusible by an alkali, and coloured by oxide of iron in the clay. Mr Roach Smith, who has written more about Samian ware than almost any other author, dismisses the subject with the observation that “the colouring matter is derived from oxides of lead and iron.” All writers, however, are agreed that the effect, however it may have been produced, now defies imitation. The method of making these beautifully embossed vessels is simple enough. They were formed in moulds, sometimes of one piece, at other times, when the relief of the ornamentation was such that the shrinkage of the clay in drying would not deliver the cast, piece moulds were used. The moulds themselves have been found in France and Germany. Sometimes the embossing was done with stamps instead of moulds. This enabled the potter to turn out a greater variety of decoration, since the order of the figures of men and animals which cover the zones or spaces between the scrolls or borders could be changed

at will. There is no evidence of the manufacture of the genuine red lustrous ware in Britain, though in some of the potteries of England they produced a very inferior imitation, known as "false Samian," which loses its colour when washed, and is rude in its ornamentation. The bulk of the embossed ware found in Britain appears to be of Gaulish manufacture, but a few pieces of very superior artistic merit have been considered to be Aretine ware, the forms and patterns and even the names of the potters answering to those found at Arrezzo in Italy, which is one of the places mentioned by Pliny as supplying domestic pottery next in estimation to the Samian. Besides the fact that potteries for the manufacture of this red ware and moulds for the embossed vessels have been found in different parts of France and in the Rhine valley, it is suggestive that many of the potters' names found on this ware in Britain are plainly Gaulish. The list of potters' marks found at Birrens is not extensive; but, on a cursory inspection, I find that three (MAIANI, BORILLI, and RIOGENI) have been found on vessels dug up in London, and a fourth (ALBVC) both in London and at Douai in France, and a variant of another (VEREDV in London and VAREDV at Birrens) occurs in the London list. More interesting, perhaps, than the names of the potters stamped in the clay before firing are the names or initials of the owners of the vessels scratched in the surface with a sharp point, and probably after the vessels came to the station at Birrens, when it became necessary to distinguish one man's drinking-cup or wine-vessel from that of his neighbour.

The following is a list of the potters' marks and marks of ownership observed at Birrens:—

Potters' Marks, stamped in the clay.

1. NANI on the rim of a white mortarium.
2. SARR. on the rim of a red mortarium.
3. . . IAR. on a fragment of the rim of a mortarium.
4. L . . FEC on the handle of an amphora.
5. COH . . . on a fragment of a tile.
6. . . . MVNAT. in relief on the side of a bowl of red lustrous ware, under the festoon border, the MVN being ligatured.

7. . . . IIBIS . . . in relief, and similarly placed on the side of a similar bowl.
8. . . . COS . . . also in relief on the side of a similar bowl.
9. VAREDVFATIP. on the inside of the bottom in the centre of a large, shallow, plate-like dish of red lustrous ware.
10. BORILLI OFFIC similarly placed on a similar dish.
11. RIIOGENI . . . similarly placed on a similar dish.
12. NV.F similarly placed on a similar dish.
13. BVCCVLA.O across inside of bottom of a small cup of red lustrous ware.
14. VRR.OF similarly placed on a similar vessel.
15. POT similarly placed on a similar vessel.
16. MAIANI similarly placed on a similar vessel.
17. ALBVC.F on the inside bottom of a cup of red lustrous ware, with sloping sides.
18. ALBVC.F on the bottom of a similar cup.

Marks probably of Owners, scratched with a point.

19. NEC on a small fragment of the rim of a red mortarium. The N is in the cursive form.
20. VEL on the outside of the bottom of a broad, shallow, platter-like dish of red lustrous ware.
21. MARI similarly placed on a similar dish. The I might be T; the top is gone.
22. GMNIINLO or GANVIINLO round the inside of the basal rim of a similar vessel. The two or three letters after the G are ligatured. On the flat part of the under surface of the bottom are the letters TC. The potter's mark on this vessel is ICAIVSF.
23. CIIN on the outside of the bottom of a similar vessel.
24. EV on the outside of the flat bottom of a vessel of black ware.
25. MI on the outside of the bottom of a cup of red lustrous ware with sloping sides.

26. TPVPP on the shoulder of a jar of greyish white ware, with a rude face or mask, projecting under the lip of the jar.
27.  in cursive characters on the outside of the bottom of a large, shallow, platter-like dish of red lustrous ware.

A considerable number of fragments of tiles were found, one already mentioned bearing the mark *сон* . . . The largest fragment of a tile is 10 inches by 9 inches, and $1\frac{3}{4}$ inches in thickness. Another is 8 inches by 6 inches, and $1\frac{1}{4}$ inches in thickness. It bears on one face a peculiar stamp—an eight-rayed figure in relief on a circular ground (fig. 40).

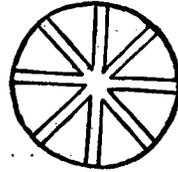


Fig. 40. Stamp on Tile.

Other fragments are those of roofing-tiles, some of which are flat, with flanges at either side, while others are semi-cylindrical, to be laid over the contiguous flanges of every two rows of the flat tiles.

There are also smaller tiles, apparently for flooring. They are thinner than the roofing-tiles, well-baked, and ornamented with diagonal scorings forming a lozenge-shaped diaper over the surface. Another variety of floor-tile is made of thin oblong rectangular slabs of the red sandstone of the district, also ornamented by a chequer of lines scored at right angles to the sides and ends.

No remains of mosaic or tessellated pavements were discovered in the recent excavations, with the exception of a single tessera of mosaic of less than half an inch cube, which was found in the central building, but there is in the Museum a portion of a tessellated floor, with tesserae of terra-cotta, measuring 1 inch by $\frac{3}{4}$ inch, laid in a bed of concrete largely mixed with bruised tile, which was found at Birrens, and presented by Dr Robert Clapperton, of Lochmaben, in 1784.

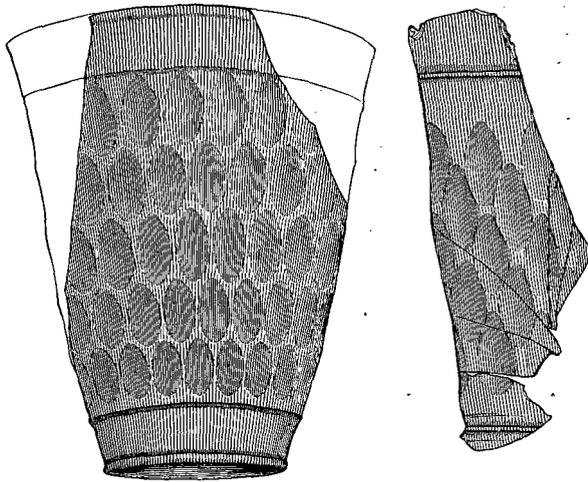
Glass.—The Roman glass ware was usually of a greenish or bluish-green colour, and translucent rather than transparent. Occasionally, however, drinking-cups and other small vessels of clear glass are met with. The most common form of the greenish glass vessel was that of a square-sided bottle, with a broad, massive, reeded handle attached to the shoulder, and joining the neck below the rim.

Among the quantity of broken fragments of glass vessels that were gathered during the excavation, a few pieces have been found which fit together and show the shapes of the vessels, as under :—

Portion of a square bottle of green glass, showing the form of the neck and upper part of the bottle, with a flat reeded handle attached from the shoulder to the neck.

Portion of a similar bottle, which seems to have expanded to a much larger size below the shoulder.

Portion of the side of a beaker or drinking-cup of a whitish clear



Figs. 41, 42. Beaker of Glass found in London, and portion of a similar Beaker found at Birrens. (3.)

glass (fig. 42), ornamented with incuse ovals ground or cut in the body of the glass, and arranged in rows along the side of the vessel. A similar glass beaker with the same ornamentation, found among Roman pottery and other remains in London, is here figured for comparison (fig. 41). I have been favoured with the following notes and references on the subject of these cut-glass vessels by the Librarian, Mr James Curle, junior, who has given much attention to the study of the early

glass vessels distributed over Europe in the time of the late Empire and the Barbaric invasions :—

The portion of a white glass vessel with cut oval facets is an interesting feature of the Birrens find, as I think it belongs to a late Roman type of glass work more commonly found on the Rhine and in Northern Europe than in this country. One of the most beautiful specimens of this work that I have seen is a large beaker of white glass which was found at Sjovide in the parish of Sjonhem, Gotland. It must be about 7 inches in height, and has a broad band of closely-cut ovals all round the middle.¹ It is now preserved in the Royal Historical Museum of Stockholm. On the mainland of Sweden two beakers were found at Oremölla, together with remains of Roman origin: both are of grey-white glass, and round the middle are four lines of oval facets. Dr Hildebrand in describing this find² states that the type is somewhat common in the north, but extremely rare in the western part of the Roman empire north of the Alps. He notes an example in the Museum of Pesth, and seems inclined to think that such vessels have come from South-Eastern Europe. In Norway, Rygh mentions this type of glass as common, 18 examples having been found.³ In Denmark there are several examples, notably those found at Varpelev.⁴ One of these was a small cup the colour of amethyst, and the other was green; a coin of Probus was found with them. Another interesting Danish example is the cup of greenish glass found at Vorning in Viborg Amt., ornamented with four large oval facets in relief, finely polished, and bearing the inscription HIE · ZHCAIC · KAAOC. In *La Verrierie Antique*, Fröhner figures two cups of white glass found at Cologne, decorated with oval facets: one of these, a patera, appears to be entirely covered with this form of decoration, the ovals being placed closely together as in the case of the Birrens specimen or the Gotlandic cup already mentioned. For the most part, he says, engraved glass belongs to the "lower epoch," and the vessels are of a style "absolument barbare." The vases with polished facets, imitating rock-crystal, he assigns to the fourth and fifth centuries. To the same period belong the engraved glass vessels, mostly

¹ Du Chaillu's *Viking Age*, p. 233.

² *Manadsblad*, 1874, p. 58.

³ One is figured in *Norske Oldsager*, No. 335. An interesting specimen combining the oval facets with raised lines will be found in *Norske Fortidsmindesbevaring*, 1879-81, pp. 139, 145, pl., fig. 7.

⁴ Aarboger for *Nordisk Oldkyndighed*, &c., 1877, p. 335.

small cups of white glass, the majority of which are found on the banks of the Rhine, rudely executed, but interesting from the subjects represented on them, which are taken from Greek mythology, the legends of the heroes, or the games of the circus. He holds that though found in the Rhineland such cups have been imported thither.¹ Of this class is the vase found at Hohen-Sulzen figured by Professor Aus'm. Weerth,² who attributes it to the fourth century, in which we see combined the decoration of oval facets with a subject taken from mythology: also two white glass bowls in the British Museum (Slade Collection), labelled as found at the village of Leuna, near Merseburg, Prussia, and belonging to the Teutonic period, but showing remains of Roman influence. The larger is ornamented with seven lines of facets, the smaller has a representation of Artemis and Actæon, whose names are inscribed above in Greek characters. To the same period probably belong the vases figured by Straub³ in his description of the Gallo-Roman cemetery of Strasburg: there we find a cup with a double row of oval facets, and a Christian cup with rudely-executed representations of the sacrifice of Abraham, and Moses striking the rock. Frœhner expresses the opinion that the Greek inscriptions on several of these cut-glass vessels found in Germany indicate that many of them were the product of some Hellenised country which maintained trade with the North. It is therefore interesting to note in the find made in 1865 at Ostropataka in Hungary two glass bowls decorated with lines of oval facets; with them was a solidus of the Empress Herennia Etruscilla (249-251), from which it is believed that the grave which contained them belonged to the second half of the third century. In describing the find, Hampel⁴ indicates the similarity of the fibulæ and other antiquities with those found in the lands north of the Carpathians. While it would be easy to cite numerous specimens of glass decorated with cut facets found in Germany and the North, I do not know of any examples found in Britain, except the one figured in Roach Smith's *London Antiquities*, a cup found at Colchester, now in the British Museum, and our Birrens specimen. I do not remember to have noticed any record of examples of cut-glass vessels found in the graves of the Saxon period: by that time probably the art had passed away.

¹ *La Verrerie Antique*, p. 95.

² *Bonner Jahrbuch*, lix. p. 64.

³ *Le Cimetière Gallo-Romain de Strasbourg*, pl. ii., vii.

⁴ *Der Goldfund von Nagy-Szent-Miklos*, p. 154.

There are in the Museum two specimens of glass found at Birrens in the end of the last century, which are interesting because they are different from any of those obtained in the recent excavations. One is a loop-handle of a vase of whitish glass 3 inches in length, made of two strands which are bent apart and pinched together at intervals, so as to give the handle a chain-like form.¹ It was presented by Dr Robert Clapperton, of Lochmaben, in 1784. The other is a portion of the brim of a large shallow vessel of a greenish-blue glass, and was presented by Alexander Copland of Collieston in 1782.

A large number of fragments of window glass of a greenish tinge and of considerable thickness. It seems to have been made by pouring a quantity of liquid glass on a smooth slab of stone, the one surface retaining the grain of the stone, and the edge showing the rounded form of the cake of glass.

Several beads of glass or vitreous paste were found. One is of greenish glass, $\frac{3}{4}$ inch in diameter; another of a greenish porcellanic paste, $\frac{5}{8}$ inch in diameter, and ribbed like a melon. This variety of bead is often found on Roman sites. A third is of a blackish vitreous paste, nearly $\frac{1}{2}$ inch in diameter.

There is also a button-shaped disc of blackish vitreous paste, $\frac{5}{8}$ inch in diameter, flat on one side and convex on the other.

Iron.—A large quantity of articles in iron was accumulated in the course of the excavations. They consist largely of nails with big circular heads, of various sizes up to 6 inches in length, clamps or staples, knife-blades, &c., but no recognisable military weapons. The iron in all these articles is almost completely converted into oxide, and the shape is disguised by the consolidation of the sand and gravel cemented into a mass round the nucleus which supplied the oxide. The only thing like a weapon which has been found is a socketed iron shank $12\frac{1}{2}$ inches in length, merging from the round socket into a squarish section, and

¹ Vases of glass with chain-like handles have been frequently found in the Gallo-Roman cemeteries of Belgium and France. See Straub, *Le Cimetière Gallo-Romain de Strasbourg*, p. 27, for a figure of one, and references to many examples. Fröhner notes three found in a tomb at Beauvais, one of which contained a coin of Postumus, *La Verrerie Antique*, p. 74.

tapering at the point to a kind of narrow quadrangular spear-head, barbed only on one side, the barb an inch and a half in length, and bent almost in a semicircle backwards towards the shank. The socket has the longitudinal opening on one side so characteristic of the socketed spear-heads of the Anglo-Saxon, Frankish, and other weapons of a time later than the Roman occupation of Britain. The condition of the metal is very different from that of the other iron implements, which are presumably of the Roman time; and it has a close resemblance in form and character to the long-shanked socketed weapons described by Roach Smith, Wyllie, and others as the *angon* of the Anglo-Saxons and Franks. In the *Collectanea Antiqua*, vol. v., plate xi., and p. 130, Mr Roach Smith figures and describes one from an Anglo-Saxon grave at Strood in Kent, which is almost exactly similar to this, except that it is 17 inches in length.

Bronze.—Swivel-like object of unknown use (fig. 43), probably for harness. It is 4 inches in length and cast in one piece. The central portion is a ring with an opening of $1\frac{1}{4}$ inches in diameter. Attached to its opposite sides are stout short rods, which expand into discs $1\frac{1}{2}$ inches in diameter, and terminate with loops of different sizes, the openings of which stand in planes at right angles to each other.



Fig. 43. Bronze Swivel. ($\frac{1}{2}$.)

Portion of what seems to have been a quadrangular column, with a moulding at the end. The fragment measures 2 inches in length, and the sides respectively $1\frac{1}{4}$ inches and 1 inch in breadth.

Portion of the rim of a large vessel of thin bronze, with a slight moulding round the rim. The curve indicates a diameter of about 12 inches.

Portion of the rim of another vessel of thin bronze, with slightly everted lip, and remains of an iron band on the exterior, round the junction of the lip and shoulder. The curve indicates a diameter of about 8 inches.

Tripod foot of a circular stand or pedestal in bronze, 2 inches wide by $1\frac{1}{2}$ inches in height, the two openings between the three divisions of the foot being 1 inch in height and $\frac{3}{8}$ inch in width.

Broken ring of bronze $1\frac{1}{2}$ inches in diameter, the body of the ring being about $\frac{1}{8}$ inch in thickness. Buckle and mounting in bronze, $2\frac{1}{2}$ inches in length.

Bronze mounting, $1\frac{1}{2}$ inches in length, with a loop at one side.

Small bronze fibula, $1\frac{1}{4}$ inches in length, with hollow crossbar at one end for the coiled spring of the pin, which is gone; the stem or shank of the fibula widens to a globose expansion where it joins the crossbar. The catch for the pin at the other end of the fibula is gone. Its upper surface seems to have been gilt.

Portion probably of the ornamental handle of a bronze vase (fig. 44), with bust of a figure, having small wings attached to the sides of the head, and below it a goat—an animal which was sacred to Mercury.

Phallus of bronze, $1\frac{1}{2}$ inches in length, with loop for suspension, the loop broken. Objects of this class were worn as charms.

Two bronze studs or discs, with remains of a pin or nail-like shank in the centre of the under surface. A third stud or disc of the same form differs from these only in being slightly larger.

Lead.—Lead weight, for a steelyard probably. It is an oblong, oval in form, $2\frac{3}{4}$ inches in length and $1\frac{1}{8}$ inches in greatest diameter, and has a loop at one end for suspension. It weighs a little over 10 ounces avoirdupois.

Three small leaden whorls or discs, perforated in the centre, and two unperforated discs.

Stone.—A circular disc of micaceous stone, $3\frac{1}{4}$ inches in diameter, and less than $\frac{1}{4}$ inch in thickness, having both faces polished and the edge smoothed flat. It closely resembles the polished discs of various kinds of stone that have been found in brochs and crannogs, as described in



Fig. 44. Part of Handle of Bronze Vase. ($\frac{1}{2}$.)

the *Proceedings*, vol. x. p. 358 and p. 717, and vol. xv. p. 108. One found with Romano-British relics in the Kirkhead Cave at Ulverston is noticed in the *Memoirs of the Anthropological Society of London*, vol. ii. p. 360.

An oval pebble of sandstone, $4\frac{1}{2}$ inches in length, flattened on the upper face and roughly chipped on the lower, the edges apparently of naturally waterworn formation. It has on the upper and smoother face an oblong oval hollow 2 inches by $1\frac{1}{2}$ inches and $\frac{1}{4}$ inch in depth. The hollow is flat in the bottom, and the appearance of the stone much resembles that of the rude stone lamps found in the brochs, but it shows no sign of use, and it is difficult to decide whether it may not be merely an accidental formation of a natural pebble, from the upper surface of which an oval-shaped concretionary nodule has been removed. It is remarkable that no remains of lamps of terra-cotta have been found among the pottery.

Socket stone of a gate found at the east entrance, being a block of hard sandstone $7\frac{1}{2}$ inches by $6\frac{1}{2}$ inches and 4 inches in depth, having on the upper side a pivot-hole 3 inches in diameter and nearly 2 inches deep, much worn by the revolving pivot, and showing a button-shaped projection in the centre.

Mortar of grey grit, 12 inches high and 15 inches in diameter, with two rude projecting knobs for handles.

One sharpening-stone with grooves for point sharpening, and three with flat faces for bringing up the broad edges of such tools as knives or axes. These are all rough lumps of sandstone used only on one side.

Whetstone of small size, $4\frac{1}{2}$ inches in length by 1 inch in breadth and $\frac{3}{4}$ inch in thickness, the sides and ends of which have all been used.

Ten broken whetstones, all of which have been used; one is partially bored through at one end, apparently for suspension.

One portion of an implement resembling a round whetstone or scythe-sharpening-stone, $5\frac{1}{2}$ inches in length, 2 inches in diameter at the broken end, tapering regularly to $1\frac{1}{4}$ inches diameter at the finished end, the surface being worked all over by pecking with a point.

Roughly chipped implement of sandstone, 12 inches in length by $2\frac{1}{2}$

inches in diameter, but slightly flattened on two faces so as to make the cross-section oval instead of circular—probably a sharpening-stone in process of formation.

Portion of another roughly chipped implement of a reddish sandstone, $5\frac{1}{2}$ inches in length, $2\frac{1}{2}$ inches in diameter, and slightly flattened on two faces like the previous example. These three implements have a remarkable resemblance to one variety of the "rude stone implements" from Shetland and Orkney, described by Sir Arthur Mitchell in the *Proceedings*, vols. vii. p. 118, and viii. p. 64.

Upper stone of a quern of black vesicular lava, 16 inches in diameter, much worn, and broken in three pieces and hooped with iron, and



Figs. 45, 46. Sculptured Fragments from Birrens. ($\frac{1}{17}$.)

dressed in the usual way. There are a number of fragments of other upper or lower stones of querns, some of schistose stone, others of grit, and others of vesicular lava, the latter probably having been brought from the vicinity of Andernach on the Rhine.

Sculptured Fragments.—Portion of drapery of a figure of Victory with one foot on a globe (fig. 45), similar to that shown in fig. 5, but less classical in design, and carved in higher relief. The stone is greyish in colour, and measures 16 inches by 14. Another portion of the same figure, or of a similar drapery, measures 6 by $7\frac{1}{2}$ inches. Both these were found in clearing out the foundations of one of the buildings next to the central roadway, towards the west side

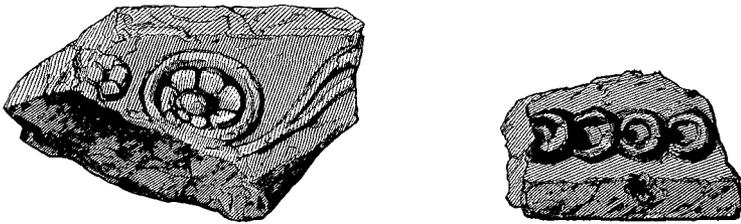
Portion of winged figure, probably of Victory (fig. 46), measuring 14 inches by 10 inches, of a slightly reddish stone, found in the central building near the well.

Portion of the drapery of a figure in low relief in a reddish stone, measuring 6 inches by 5 inches.

Top of a niche of red stone, of gable-shaped form, with part of a pillar at one side and the head of a figure in high relief in the centre. The fragment measures $7\frac{1}{2}$ by $3\frac{1}{2}$ inches.

Fragment of a border, 10 inches by 4 (fig. 47), in a red stone, showing part of a running scroll, with rosettes at intervals. Three other fragments of the same scroll, of smaller size, but unconnected.

Fragment of a border with guilloche ornament (fig. 48) in a reddish



Figs. 47, 48. Sculptured Fragments from Birrens. ($\frac{1}{4}$.)

stone, 6 inches by 3 inches. Other two fragments of the same border of smaller size, also unconnected.

Two fragments of a tablet of red stone, surrounded by a semicircular wreath of boldly cut laurel-like leaves. The larger fragment measures 7 by 7 inches; the smaller is about half that size, and bears on the part of the tablet face left adhering to the wreath the letter N.

Besides these, there are a large number of broken fragments of architectural details, including mouldings, plain and twisted wreaths, and a considerable variety of hewn work, showing the character both of the enrichments and of the ordinary dressing of the building-stones. On the flat face of one stone is, rudely incised, a phallus.

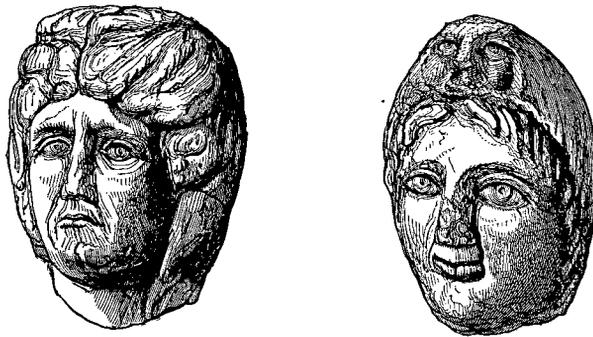
There are also in the Museum the heads of two statues which are said to have come from Birrens.

One of these of red sandstone (fig. 49) is thus described in the list of Roman Altars, Inscribed Stones, &c., presented to the Museum in 1857 by Sir George Clerk of Penicuik :—

“Sculptured Head of a Female Statue, with hair rolled back at the sides. It is about 7 inches in length, and was found near the Roman camp at Middleby, Annandale.”

From this it may be inferred that it was found in the western annexe of the station, from which Baron Clerk obtained the figure of Brigantia and other inscribed stones.

The other head (fig. 50) is more difficult to identify. It occurs in the Catalogue of the Museum printed in 1849, immediately after the



Figs. 49, 50. Sculptured Heads from Birrens. (‡.)

tablet with the sculptured head (fig. 20) presented to the Museum in 1810 by Sir David Brewster, but is not said to have been presented by him. The description, however, is quite distinct—“Head of a Roman Soldier sculptured in Stone, found at Birrens, Dumfriesshire” ; and this entry, with the catalogue number, is still adherent to the sculpture. The stone is a whitish limestone. The head is enveloped in an animal’s skin, of which the face lies on the top of the head, where a crest-like ridge has been broken away. I have failed to trace how this sculpture came to the Museum, but it must have been before 1849, and it may answer to the head of a Roman god, which Mr Hewison mentions as having been found at Birrens in the early part

of the present century. Gordon, however, figures a head similarly enveloped in a lion's skin, with the face showing over the top of the head, which he found at Netherby in Cumberland—(*Itinerar. Sept.*, pl. 37, p. 97). He does not say what kind of stone it was, but merely that it was a head with the neck and shoulders, and that its whole length was 11 inches. This one wants the neck and shoulders, and its whole length is only 7 inches.

Coins.—The coins found during the progress of the excavations are eleven in number. They are all in very bad condition, and generally illegible, but from the portraits and reverses Mr Carfrae has been enabled to assign them as follows :—

Large Brass.—Trajan (2), Hadrian, Antoninus Pius.

Second Brass.—Antoninus Pius.

Denarii.—Antony (Consular) (2), Domitian, Hadrian, Antoninus Pius, Aurelius (?).

If the coins are of any value as an indication of the time of the occupation of the station, it seems significant that nothing later than the reign of Antoninus Pius has been found, leaving out of view the doubtful attribution of one coin to his successor Aurelius. The evidence of the coins, therefore, points to the same period as that indicated by the tablet erected in the 16th year of the reign of Antoninus (A.D. 153) by the 2nd cohort of the Tungrians, when the station was certainly occupied by that body of troops. Whether its first occupation was much earlier than this there is no means of determining. But the architectural evidence given in Mr Barbour's paper shows that between the earlier occupation indicated by the primary foundations of the station buildings, and a later occupation indicated by the secondary foundations, a considerable time had elapsed. There is no distinct evidence to show when this secondary reconstruction of the station buildings took place, but Gordon records the finding of a coin of Constantius Chlorus (A.D. 305-6), and the occurrence of the later pottery and glass vessels of types attributable to the 4th and 5th centuries, indicates that the secondary occupation may have lasted till the final evacuation of the country by the Roman legions in or about A.D. 410.