

ART. XXI.—*Hardknott Castle. Communicated at Carlisle, August 20, 1891.*

PART I.

Excavations at Hardknott Castle, Sept. 20, and 21, 1889.

By H. SWAINSON COWPER, F.S.A.

I HAVE the honour to exhibit a Roman gem ring, spear head, and large latch key of iron, which I found in excavating and clearing the foundations of the north tower of the Roman Castrum on Hardknott in Cumberland, on Sept. 20, and 21, 1889. This Society proposes to have a survey made of the camp and to clear the walls, towers, and entrances of the ruins in order that this may be done with greater accuracy. The excavation of the north tower proved useful in ascertaining the amount of labour and time necessary for the undertaking.

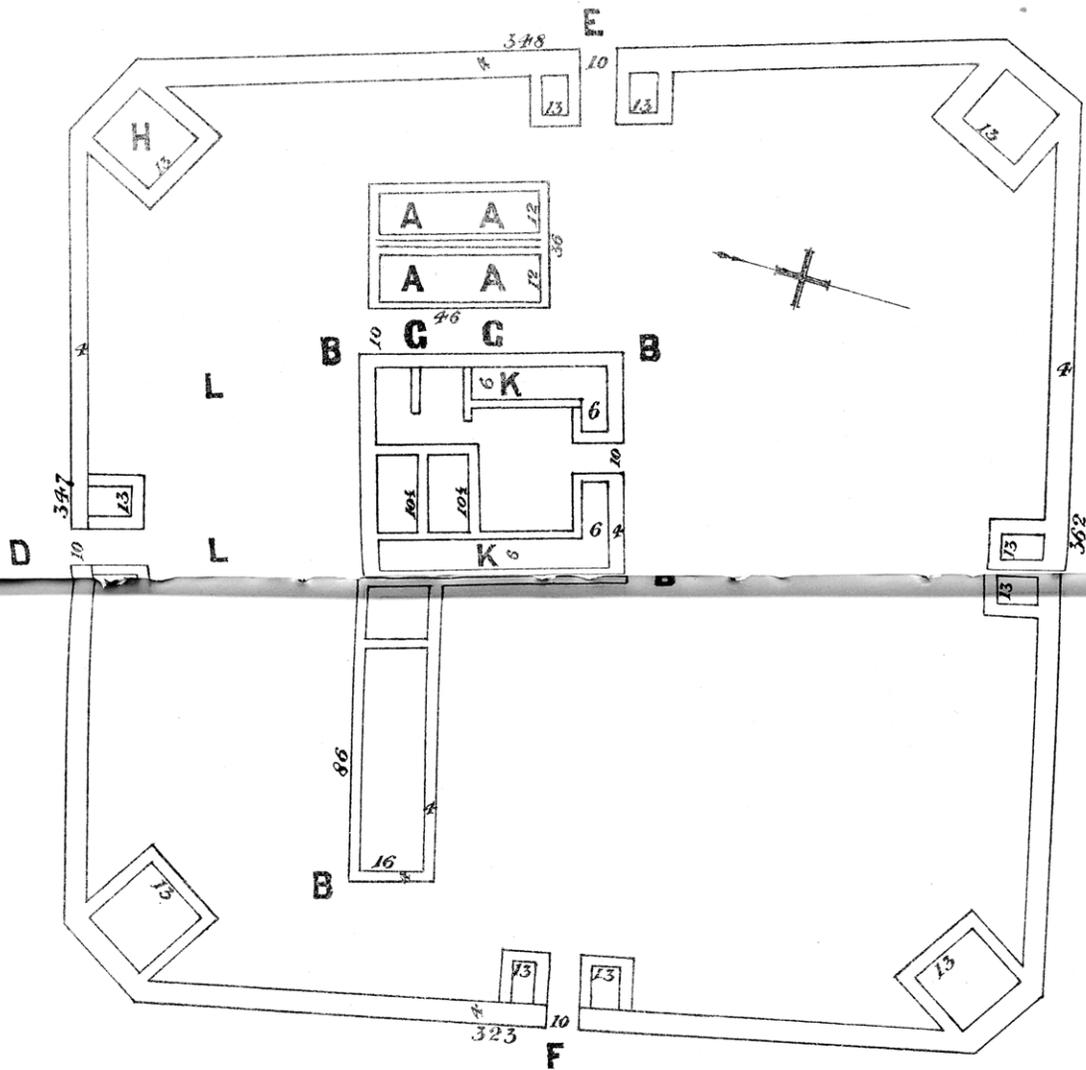
The confused ruins at the northern angle * proved to contain the foundations of a square tower, of about 15 feet by 16 feet. The walls are about 2 feet 4 inches wide, and are built of squared felspathic stone, without apparently any mortar. On the west, three courses were laid bare: they overhang somewhat, being apparently forced outwards by the superincumbent ruin. In the north or outer wall there are three and in some places four courses, also overhanging somewhat; on the east five courses, and on the south four, are visible. The tower is built on a knott of rock, and the north or outer wall seems to have been built against it as a revetement, and does not now rise to anything like the height of the other walls. No entrance has been found.

Besides the ring, key, and spear head, I found much fragmentary pottery, one small fragment of Samian ware

* See plan in Hutchinson's History of Cumberland, vol. i, p. 569: a copy is given with this paper.

with

HARDKNOT CASTLE



*Surveyed and measured August 14th, 1792,
by Edmund Lamplugh Irton and Henry Sergeant,
and reproduced from "Hutchinsons Cumberland."*

The letters refer to Sir H. E. Maxwell's notes.

with the festoon and tassel ornament, burnt earth, nails, charcoal, one or two fragments of lead, and several red sandstone slabs, some of which had one edge chamfered off, apparently coping stones.

The drawing I exhibit, is by Mr. W. G. Collingwood, M.A., and shows the masonry of the north or outer wall of the tower, which is somewhat curved, and the courses of which are not laid horizontally, but rise towards the east apparently following the slope of the rock.

PART II.

Notes of Operations in the Roman Camp at Hardknott, Cumberland, on 28th, 29th, and 30th of May, 1890. By SIR H. E. MAXWELL, Bart., M.P.

THIS camp, known locally as Hardknott Castle, is remarkable for its situation as well as for the amount of original structure that remains. It lies, at a height of about 700 feet, on the side of Hardknott Fell, at the head of Eskdale, and commands the pass through which runs the ancient and important way from Ravenglass to Kendal. Although some of the material seems to have been taken away for making sheepwalls, and much of the freestone used in the towers and gateways has been removed for building purposes, still, being remote and difficult of access, it has suffered less than most Roman remains of equal importance.

It appears to have been a *castrum aestivum stativum*, or permanent summer camp, whence the troops (except a detachment sufficient to act as a camp guard) would probably be moved in winter to the camp at Ravenglass on the shore, distant about 11 miles, which may be held to be the *castrum hybernium stativum*, or permanent winter quarters.

The harbour of Ravenglass must in early times have been much more commodious than at present: it has now become silted up, but there is little doubt that it was during

during the Roman occupation one of the principal harbours of the north-west. This district retains traces of a prolonged occupation. Close to the camp at Ravenglass there stand the ruins of a Roman villa, the walls of which are still upwards of 10 feet high. Higher up the Esk, in the park of Muncaster, a tile and brick field was discovered in making a new road, and traces remain of smelting furnaces for iron ore.

The camp at Hardknott, being almost, if not quite, an exact square, may be held to date from the early years of the British Province. It is not unlikely that it was constructed during the vigorous administration of Julius Agricola, A.D., 78-86. As is shown in the accompanying rough sketch plan, the fortified camp measures about 315 feet along each face. At each angle there has been a square tower built of hammered stone and coped with rectangular blocks of dressed red freestone, but without mortar. In each face there is a gateway, protected by small towers of which now only the foundations remain. In those parts of the ground, where the natural steepness permitted its formation, the *fossa* may be distinctly traced, though grown up with moss.

The material used in the construction of the *vallum* or ramparts consists of rough blocks of the metamorphic rock, gathered from the screes above and bedded in the turf. Though ruinous, it remains continuous throughout the entire circumference and was probably originally of the usual dimensions defined by Hyginus, 6 ft. high by 8 ft. broad.

Within the camp remain the foundations of an important group of buildings, comprising what was possibly the *prætorium*, AA., and the guard house, magazine or store house, and the quarters of the principal officers, BB. If however, as seems most likely the front of the camp was the south-east side overlooking the pass, then the *prætorian* buildings might have been those in the group BB.
immediately

immediately opposite the prætorian gate C. But having regard to the fact that AA is on much higher ground than any other part of the buildings except the north tower, thus overlooking the whole camp, the probability is that the prætorium was built there, the clear space GG in front being set apart for the *aræ* or altars. Assuming the south-east to be the front of the camp, then the *Porta Prætoria* would be the gate at C, *Porta Decumana* at D, *Porta principalis sinistra* at E, and *Porta principalis dextra* at F.

About 400 yards to the north-east stands a very large cairn, on the edge of a piece of level ground about 2 or 2½ acres in extent, which seems to have been prepared for an exercise ground. The stones have been moved off its surface, and may be seen lying one upon another, where they have been rolled off. Traces of a road, paved in places, remain between this drill ground and the *Porta sinistra*.

About 100 yards from the east corner tower below the camp are remains of a considerable building between which and the *Porta Prætoria* may be seen what seems like a small reservoir, with an artificial bank or dam.

To the south of the camp, again, about 200 yards distant, is the ruin of another rectangular building.

The gates *Sinistra* and *Dextra* are each protected by a mass of rock jutting up outside and forming a natural traverse. The other gates are without traces of the usual traverse, but these may have been supplied with *cervoli* or palisades.

28th MAY.—Resumed excavations of the north tower H, where in the preceding autumn some exploration had been undertaken, resulting in the discovery of an iron key, a spear head, and an iron ring set with a carved cornelian. Pieces of broken pottery, black, yellow, and red British, as well as fragments of Samian ware, turned up in considerable quantity. Numbers of iron nails, some glass slag, charcoal, pieces of brick, and tiles, and a piece of clear glass

glass appeared. Rectangular blocks of freestone, which must have been brought from not nearer than Gosforth, 10 miles distant, lay among the debris. The only animal remains were a few sheep's teeth and fragments of bone.

The walls of this tower remain about 5 feet high from the original floor, nor do they seem ever to have been much higher. They may, very likely, have been surmounted by a wooden structure, which would account for the number of nails found within the tower. It is remarkable that the builder should have been at the trouble to bring the red freestone, bricks and tiles, from such distances, and yet, as far as can be seen, not to have provided mortar for the building. The bricks and tiles no doubt were made at the kiln at Muncaster.

29th MAY.—Completed excavations of north tower. An iron ring and some iron hooks, two small half rings of bronze, and a fragment of ornamental Samian pottery were the only objects discovered differing in character from those of the previous day.

Began excavating the large chamber KK in the group of buildings opposite the south-east gate. Earth dry and shallow, full of fern roots. Numbers of flooring and roofing tiles and bricks, scored like those made at the Muncaster kiln, lay under the turf, and a piece of red freestone with an elegant moulding carved on it.

30th MAY.—Completed excavations at KK. Found an iron spear head in good preservation and a fragment of millstone with corrugated surface.

The soil at LL is damp and deep. Apparently there has been a well or pit or both these, for on opening a trench the soil to the depth of 4 or 5 feet was found to be full of charcoal and debris of pottery. A piece of freestone, forming the corner either of the upper part of a pilaster or of an altar, with moulding but no inscription, turned up at the depth of 3 feet. A fine bit of Samian ware and two small pieces of oak, showing marks of cutting, were the only notable objects found here.

SUGGESTIONS

In view of the importance of these remains and the unequalled opportunity they afford of exploring a camp constructed, probably, for the accommodation of an entire cohort with its auxiliaries it is much to be desired.

1. That it should be thoroughly examined.
2. That a minute record should be kept of every step in the exploration and of its results.
3. That such repairs as are possible should be undertaken to prevent further dilapidations.

I should urge therefore that the towers and gate-houses, as well as the interior buildings should be thoroughly searched. The debris removed from within the towers should be thrown out so as to support the walls from the outside : the building should be repaired where it has given way and mortar used to strengthen it where necessary. The softer parts of the ground should be thoroughly trenched to the full depth of the disturbed soil. Any bones found should be carefully kept together and submitted to skilled examination. A plan of the camp should be made by a surveyor, on which should be marked the progress of the work and the situation of objects recovered. Rock surfaces, of which there are several spaces within the camp, should be stripped where soil is shallow, and examined for inscriptions, the turf being replaced where none are found. All earth removed from buildings should be carefully sifted for the recovery of coins or other small objects. The buildings outside the camp as well as the reservoir should receive attention after the camp has been examined.
