## III.

- NOTICES OF ROCK-HEWN CAVES IN THE VALLEY OF THE ESK AND OTHER PARTS OF SCOTLAND. By F. R. COLES, ASSISTANT KEEPER OF THE MUSEUM.
- (1) Gilmerton Cave.—During November 1897 my attention was directed to this cave by some information from Mr Thos. Ross; and on the 29th I went out and made a partial examination of it. Finding that its ramifications were both peculiar and intricate, and that to cope with it at all successfully would require the assistance of two other observers, I made arrangements with Mr J. Balfour Paul (who had expressed a wish to explore the site) and Mr George Good, F.S.A., to meet me on the Monday following. Fully three hours were occupied in measuring and plotting the subterranean chambers of this remarkable cave, the results of which, combined with what plans I was able unaided to draw on my first visit, and some further details noted on a third visit, when I was assisted by Mr J. E. Simpkins, are now placed on record in the plans, sections, and views accompanying this paper.

The only written notice of the Gilmerton Cave, so far as accessible to me, is that by the Rev. Thos. Whyte, parish minister of Liberton in 1782, contributed in his Account of the Parish of Liberton to the first volume of *Archaelogia Scotica*. At p. 313 we read:—

"Here is a famous cave dug out of a rock by one George Paterson, a smith. It was finished in 1724, after five years' hard labour, as appears from the inscription on one of the chimney-heads. In this cave are several apartments, several beds, a spacious table with a large punch-bowl, all cut out of the rock in the nicest manner. Here there was a forge, with a well and washing-house. Here there were several windows which communicated light from above. The author of this extraordinary piece of workmanship, after he had finished it, lived in it for a long time with his wife and family, and prosecuted his business as a smith. He died in it about the year 1735. He was a feuar or feodary, and consequently the cave he formed and embellished so much, and the garden above it, was his own property, and his posterity enjoyed it for some time after his decease. His cave for many years was deemed as a great curiosity, and visited by all the people of fashion."

In a footnote, Mr Whyte quotes an eight-lined inscription on the cave at Gilmerton, composed by Pennycuick, which, together with an "epitaph on George Paterson, who hewed out the subterranean caves at Gilmerton," was printed in 1769 in "A Collection of Scots Poems by the late Mr Alex. Pennecuik, Gent., and Others."

Whence this legend of a Mid-Lothian Wayland Smith sprang has at present baffled my inquiries, but the internal evidence of the structure of the cave itself points, we all think, to an origin much more remote than last century. The work, taken in its entirety, could not have been hewn out in five years by one pair of arms; the lines of its recesses, its passages, its so-called "beds," and its tables, hardly fall in, one would think, with the practical habits and methods of working adopted by a blacksmith. Again, the whole series of chambers and passages have been picked out of the sandstone with pointed tools, not chisel-worked. Lastly, the hewn inscription over the chimneyhead, which clinches the argument for the local story, does not exist.

True, there is a recess made like a forge, with an aperture on its left, through which the bellows-snout may have passed. This, probably enough, gave rise to the story of George Paterson the smith. And there also remains over the fireplace of a room behind the forge an oblong sunk panel-space, which is shown in fig. 4. The inscription may have been cut on an inserted panel which no longer exists.

The cave is protected by a locked gate, the key for which is kept by the tenant of the house at the gateway, the first house on the right at the north end of Gilmerton. The gate opened, we descend at once by a flight of twelve steps, and can with the right hand (see Ground-plan, fig. 1) touch the wall of the forge, and with the left the jamb of the first doorway in the main passage. This doorway, and another near the middle of the passage, also on the left or, roughly speaking, the south side, are the only apertures finished with giblet checks for wooden doors, the rest being merely slightly arched openings, and, like most of the excavation, pretty regularly 6 feet high. Just beyond

the inner jamb of this doorway is a curvilinear chamber with two seats and a central table (see section E F in fig. 2); this is divided from the main chamber by a straightish piece of wall 7 feet long, the further end of which forms the check of a substantial and well-shaped doorway. This large chamber, also mainly hewn in curved lines, measures 17 feet by 6 feet 6 inches. It contains a seat running all round, placed at a convenient distance from the long curving central table, I, at the north end of which is a circular bowl-shaped cavity,

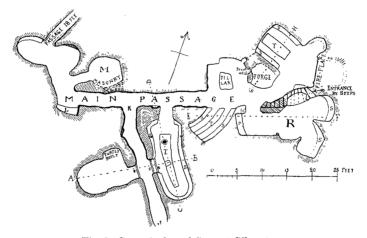


Fig. 1. Ground-plan of Cave at Gilmerton.

rimmed, and very carefully hewn, 13 inches wide and 8 deep. The base of this table is hewn inwards all round, except at the broad end facing the door, and a stone ledge about 3 inches wide has been left as a foot-rest (fig. 2, section, AB). The seat is broken nearly opposite the middle of the west side of the table, where a rock pillar has been left for supporting the roof, and here there are two steps, followed by a third (s s s) a little further in (see section, AB). These steps lead into a long narrow passage, terminating at present 12 feet within, at J, in a mass of stones and earth, which slopes downwards as if from an

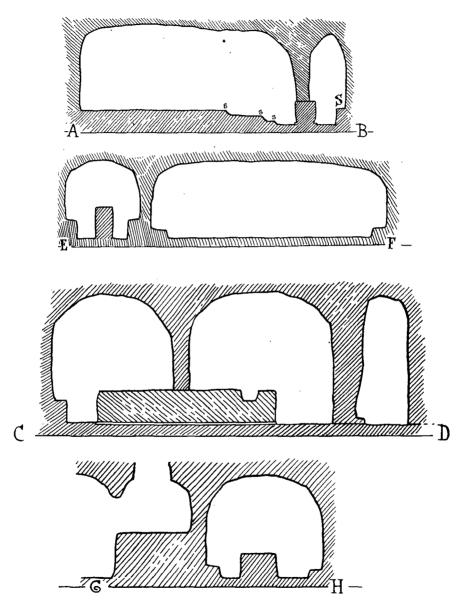


Fig. 2. Sections of Cave at Gilmerton on the lines shown in the ground-plan.

outlet. It is not unlikely this was an entrance. The opposite branch of this passage leads us back into the main passage at K, which, being followed for about 14 feet westwards, reveals another curved and very unequally-formed seat or ledge L, which is opposite the continuation of the passage now trending N.W. From it, to the right, a short narrow passage leads into an almost circular chamber M, one whole

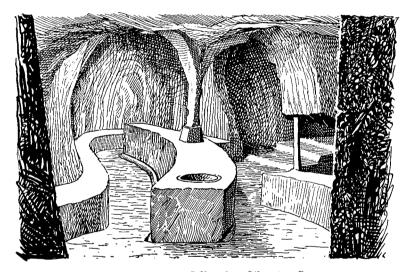


Fig. 3. View of seated Chamber, Gilmerton Cave.

side of which is built up of small stones, and this wall can be seen and felt at that part of the main passage. Beyond M, again, are two very deeply curved recesses, and, from their middle, a straight narrow passage, barely 3 feet high, trends north-eastwards, and can be followed up for 18 feet. This is popularly believed to communicate with Craigmillar Castle.

There are here shown a view into the seated chamber (fig. 3), with its table and "punch-bowl," sectional views across it (fig. 2, C D),

and the same across the forge and adjoining chamber (G H), and the front of the fireplace, with the empty sunk panel above it (fig. 4).

Bar- or bolt-holes are numerous, but are placed puzzlingly. In the chamber with the broad table near the fireplace, for instance, there is one such hole only 6 inches above ground and 5 inches deep at right angles into the wall, while the one on the left is at a height of 3 feet 10 inches up the wall. A small one exists 23 inches above the low one on the right; but, even allowing that there the two upper holes

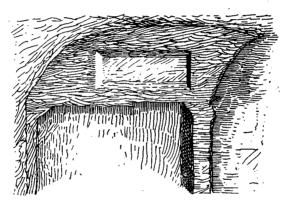


Fig. 4. View of the fireplace and sunk panel above it in Gilmerton Cave.

are, rudely, opposite one another, the use of the lowest is not apparent. In the short passage flanked by the forge there are two bar-holes on the opposite walls at 1 foot high, and two more at 3 feet 8 inches high. The front of the forge-ledge near G has a well-made bolt-hole; and there is one, not correspondent to this, on the side of the sixth step at the entrance. Two more occur in the east side of the pillar-like mass of rock left standing to the west of the forge. But, in addition to these bolt- or bar-holes, the Gilmerton Cave presents a quite unusual feature in having several pipe-like holes piercing the rock

in various parts and at various degrees of incline, some of which appear to penetrate for many feet. In the same broad chamber, close to the forge, in the angle near S, 16 inches above the seat, there is a tube, the other end of which comes out in the face of the little square recess north of the bellows-hole. By thrusting the footrule through, we ascertained the thickness of this wall to be 2 feet 9 inches. This pipe in the rock, like the others of the same nature, is about  $1\frac{1}{2}$  inches in diameter. Another one occurs, sloping upwards at a steepish angle, in the passage between K and J, about 6 feet from K, and it trends upwards and north-eastwards to a depth not ascertainable by a yard measure. A third pipe-hole, very like this, starts at a point  $25\frac{1}{2}$  inches above the floor of the deeply-recessed chamber at the extreme east end (near the "Craigmillar passage"), and runs in for a depth of 25 inches. It is peculiar in having at its mouth a rather neatly-hewn triangular bevelling.

It has been suggested that these long pipe-like holes were made and used for conveying liquors down into the cave, around the principal table in which, with its appropriate "punch-bowl," carousals, or it may be secret politico-masonic meetings of the Vehmgericht type, were wont to be held. However that may be, it is quite as likely they were meant as ventilators, and would serve that purpose more advantageously than the larger roof openings, traces of which may yet be seen in the chamber R, on the left of the entrance. Speculation must, however, at present be waived, at any rate till we have examined other rock-hewn caves of similar type.

(2) The Gorton Cave, popularly called Wallace's Cave.—The situation of this cave is at a sharp bend in the channel of the Esk, about 130 yards west of the garden wall of Gorton House, and nearly half a mile upstream, beyond the group of caves at Hawthornden. At this point the sandstone rock rises, from the top of a steep slope some 60 feet long, into a cliff, the lower portion of which, 20 feet high, is divided from the upper by a ledge 4 feet wide; and on this ledge is the cave entrance.

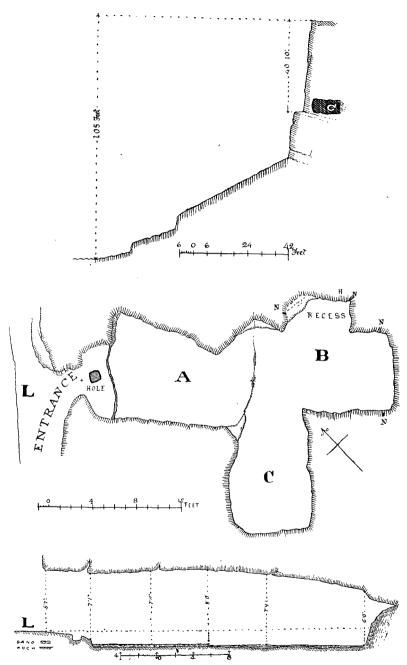


Fig. 5. Section of the cliff showing position of Wallace's Cave, Gorton, and Ground-plan and section of the Cave itself.

The second precipice, above the cave, reaches to a summit 41 feet higher (see Sectional View, fig. 5). The whole height of the cliff above the present river-bed is rather more than 105 feet. The cave is now easily entered from above by a flight of steps recently hewn out of the rock; but there must always have been an access from the waterside, not insuperably difficult, because the 20-foot precipice directly in front of the cave entrance "runs out" into the general slope on the south, and renders climbing needless. Standing on the ledge (L on the Ground-plan and Section, fig. 5) we see the doorway (fig. 6), with its inward-sloping floor, its much-worn and rounded jamb (one face containing a niche faintly suggestive of a figure, and the recessed check for a gate or door, which has turned on a hinge, the hole of which is still visible on the left corner). The original entrance was, possibly, only the space between this door-check and the rock—a mere "creep" 2 feet 6 inches high. As we stand, next, under the squared arch of the doorway, the jamb on the right displays several bar-holes (shown in fig. 6), and there is one more hewn into the inner face of the rock at right angles to the third lowest. The corresponding bar-holes on the opposite side of the doorway are all hewn out of the inward facing wall, so that the bars used, whether of wood or of metal, must have had a short, straight piece at this end at right angles to their main length. Above the sixth hole here there is one cut nearly perpendicularly up into the doorway roof, and on the left is one large and peculiarly well-hewn bar-hole.

The next fact that arrests our progress is the neatly cut, almost square cavity in the broad step in the entrance (fig. 7). It is 10 inches deep on the outside,  $5\frac{1}{2}$  on the inner, and 10 inches square. Close beside it the rock is worn into a broad, shallow, nearly circular depression. Beyond it is a "step" trending in what seems a natural curve on either side—a merely natural slip in the bedding of the rock. From its inner edge a good view of the interior of the cave is obtained, as shown in fig. 7. It will be noticed that the spring of the arched VOL. XLV.

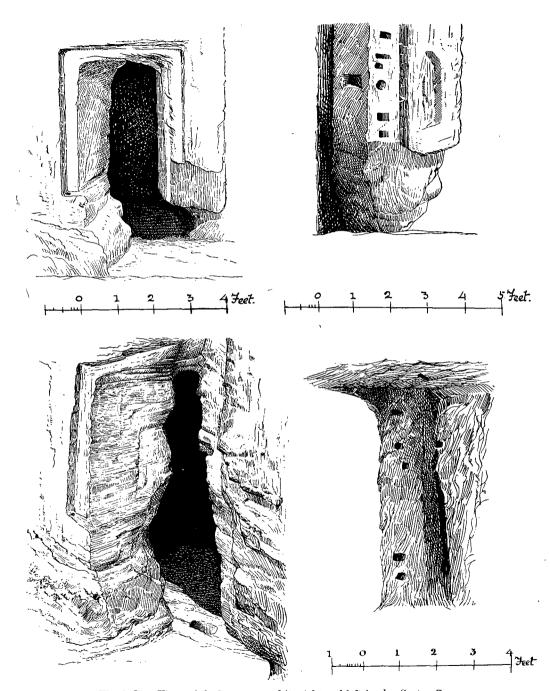


Fig. 6. Two Views of the Doorway and its right and left jambs, Gorton Cave.

roof occurs nearly always at the level of the bedding of the rock, about 3 feet above the floor, and that much of the height of the roof has been regulated by this natural feature. That there is also a fall in the roof is shown by measurements given in the section. The rock has been hewn, roughly speaking, into three chambers, the longest axis, measured from the inner side of the doorway, running S.E., and extending to a length of 28 feet 3 inches inwards and slightly downwards, the difference in level between the entrance and the floor at the back wall being 22 inches. Nearly midway between A and B (see fig. 5) is a very slight "step" in the floor. The large chamber C has no special points of interest. But in the walls at the end of B there are (marked N on ground-plan) two small niches. They are dissimilar in cutting and in position. The smaller and lower one is cut into the rock on the south of the chamber, and the higher and larger one is opposite. The smaller is a completely enclosed niche, hewn nearly horizontally at the top; the larger one is hewn obliquely and left open at the top. A heavy bar of wood might be thrust into the smaller cavity and its other end slotted into the larger one, in precisely the same manner as the horizontal bars of some farm gates are in our day manipulated. What further purpose was thus served is not so apparent.

In the recess off B chamber, to the north, there is, in addition to a long and deep obliquely-hewn niche, one of those curious so-called "holdfasts," common in the Wemyss caves (see fig. 7). This example, however, is not scooped out of the perpendicular wall, but has had a flat-topped and angular piece of rock neatly squared for it, 9 inches wide either way; and the hole, 3 inches in diameter, is cut slopingly upwards, leaving a "handle" or bar of great strength. I do not think the edges of it show much sign of having been smoothed by the friction of a rope or thong. The rock between the "holdfast" and the angle on the left, as we stand facing it, has been slightly and very rudely flattened for a width of 3 to  $4\frac{1}{2}$  inches; and as there is

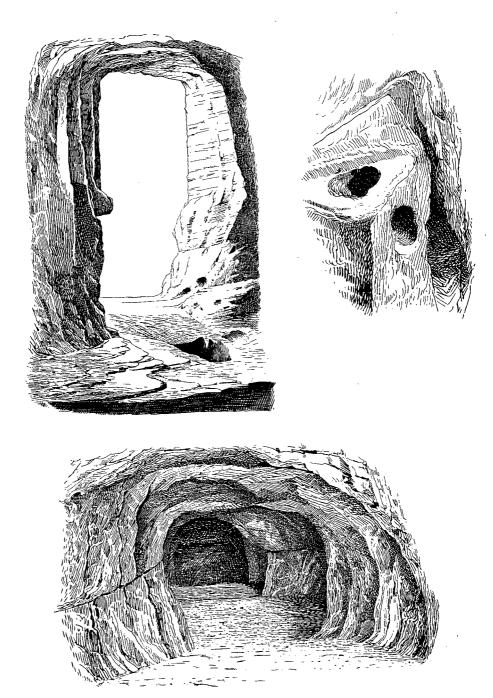


Fig. 7. View of Doorway from interior; a "Holdfast"; and View of the interior of the Cave, looking inwards.

in the rectangular face of the rock forming this end of the recess another short and deep niche nearly opposite the long one at the "holdfast," we have here the same provision for a bar as that just noticed. The back wall of the cave and that of chamber B, as well as the adjoining piece of roof, have been hewn inwards for a distance of 2 feet 9 inches beyond the length of the floor. What this means is not intelligible unless the intention had been to remove more of the rock and lengthen the cave, and the work was left incomplete.

What chiefly strikes one in the contour of this cave is the distinct attempt at hewing the walls at right angles to each other, while their relation to the roof and the floor is curved, in one part especially so, that is, at the left-hand niche of the recess in chamber B, where the concavity is 16 inches at 1 foot 8 inches above the floor, in a wall only 5 feet high. The floor consists throughout of the sandstone bed, but it is covered irregularly with fine sand to a depth of from 1 inch to nearly 4 inches; and the greater depth occurs both near the entrance and close to the longer wall of chamber C. Small fragments of the rock also lie about.

As to the period of its occupation, or the manner of life of those who occupied this Gorton Cave, little can be even suggested; but three different occupations may have occurred, or, rather, it may have been put to three different purposes: first, by people who found a low and narrow entrance into a small natural cavern, and who have left us no relics whatever or signs of their occupation; secondly, by the men who drove pointed tools into the easily-worked sandstone, and expanded the cavern into what we now, interiorly, see it to be, and who worked out the niches and "holdfasts" to the numerous bar-holes on both sides of a broader and taller doorway; lastly, by some recent proprietor, who prepared the rectangular check in which to hang a movable gate, perhaps simply with the view of preventing visitors or tramps from gaining admittance. Under any or all of these condi-

tions of use, however, we do not obtain any explanation of the square hewn cavity at the entrance.

(3) The Hawthornden Caves.—Though probably better known to a greater number of persons than any other inland caves in Scotland, the group at Hawthornden has not as yet received adequate examination and description. They have been more or less commented upon since the days of Stukeley,<sup>1</sup> and are traditionally reported to have been a harbour of refuge to others besides Sir Alexander Ramsay of Dalchousie and the young Pretender.<sup>2</sup>

Even so recent a writer as Masson<sup>3</sup> dismisses them in one brief paragraph, which concludes with a reference to the so-called "Doo-cot" chamber as "a bottle-rack for some Troglodyte or Cyclops." And, in his local Guide to Roslin and Hawthornden, Rev. John Thompson hardly specialises the features of the caves carefully enough, though his account is the best short one published.

Through the courtesy of Sir James Drummond, who is much interested in these caves, I began a thorough investigation of them in March 1899, and at irregular intervals continued it over a period of several months.

During the long time that has elapsed since the date of Stukeley or Pennant, very great changes must have taken place on the precipitous face of the rock now crowned by Hawthornden House, for Pennant writes of gaining access to what was then called the King's Chamber by a flight of twenty-seven steps cut out of the rock, then along a plank, and then down several other steps.

Thick ivy now covers the entire surface between this entrance—the upper of the two shown in the sketch (fig. 8)—and the present slope of ground at the base of the cliff, effectually concealing any

<sup>&</sup>lt;sup>1</sup> Itiner. Curiosum, i.

<sup>&</sup>lt;sup>2</sup> Pococke, Tour through Scotland, 1760, p. 314.

<sup>&</sup>lt;sup>8</sup> Drummond of Hawthornden, p. 5.

traces of recent fracture such as might indicate the position in former times of masses of rock large enough to have carried such

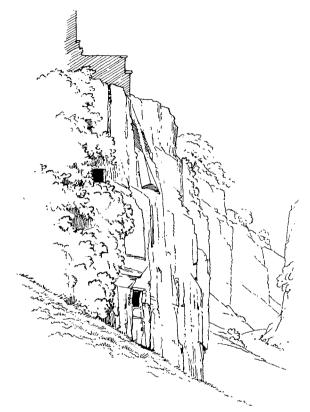
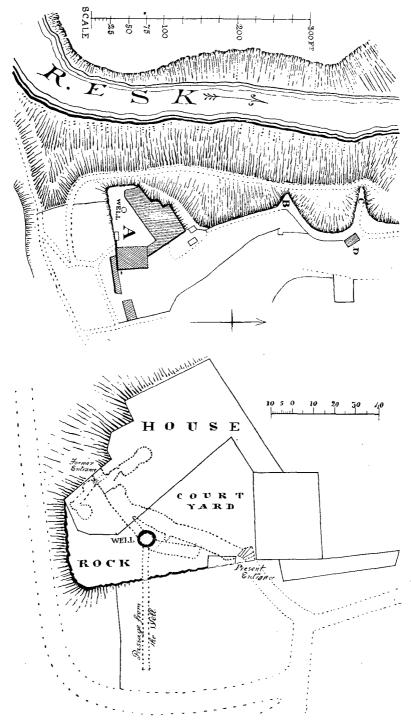


Fig. 8. View of the Cliff at Hawthornden showing the different levels of the Caves.

a stair. In order to the better understanding of the caves, the annexed general plan (fig. 9) of the site is enlarged from the Ordnance map, 25-inch scale, and shows the following points:—(A) the court-yard, formerly the banqueting hall in the castle. In it is the mouth



Figs. 9 and 10. General Plan and enlarged Plan of Hawthornden.

of the famous well, protected by iron caging fixed into a bed of concrete, from the edge of which is a sheer drop of 56 feet 6 inches to what may be the bottom. It is entirely hewn out of the sand and stone, the uppermost 20 feet of it being 5 feet in diameter, and the rest nearly 6. The brow of the rock upon which the courtyard is founded is 49 feet above the sloping grassy bank at a point opposite the entrance to the lower cave (see fig. 8); and this precipice is but 2 feet "out of plumb." The profile view shows the positions and the relative levels of the The enlarged plan (fig. 10) gives the contours of the upper cave in thick-dotted lines crossing the rock below the courtyard. It shows also the direction of a passage stated to have been explored from within the well to a point 55 feet due south of it, beyond which there has been discovered no outlet. The doorway by which in our time tourists enter this group of caves is at N (see Ground-plan, fig. 11); but as it is more in keeping with the nature of the site to enter the caves (theoretically) by their original accesses, I shall so describe them.

(1) Upper Cave.—Having gained the threshold of the wide doorway, (G, fig. 11), we stand on the edge of a precipice 27 feet deep. Above, the rock still rears up a sheer wall some 22 feet higher. The broad outer ledge of this doorway bears on either side certain hewn channels (a and b, fig. 11). These have the appearance of having been sockets or slots into which a strong iron pillar-foot was once sunk for the support, possibly, of a balustrade, the ledge outside the doorway running for a considerable distance north-eastwards. There are several large and deep bar-holes on both sides of the doorway, and the hinge-bolts of a gate on the left. A few feet within, is the top step of a flight of eight leading down into the main chamber (H, fig. 11). On either side of the threshold is a smaller chamber, that to the west having a longish passage (E), reached by two modern steps upwards, and being itself hewn out into 175 squarish holes, for the style of which see the View (fig. 12). The window at the end of this chamber F is of

peculiar form, and measures 2 feet 2 inches in width above, 2 feet 9 inches in width below, and 1 foot 9 inches in height. Its sill is only 13 inches above the floor. Several bar-holes occur in the rocky sides as well as on the floor, and, about midway up the passage E, there are, opposite each other, two distinct perpendicular slots, a highly probable use for which is suggested by Mr J. Ward, F.S.A., in his

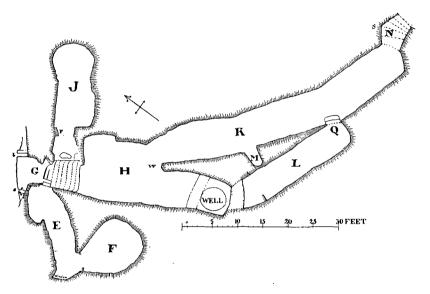


Fig. 11. Ground-plan of the Upper Caves, Hawthornden.

illustration of an identical device noticed in the Bat House, near Ambergate, Derbyshire.<sup>1</sup> The chamber (J) on the east is squarer, except at the inner extremity, of much the same general height as the rest of this excavation, that is, about 5 feet 8 inches, and has several niches in the walls (see details, fig. 17). In the flat of the rock, between the steps and the doorway of this chamber, is a deep oval cavity,

<sup>&</sup>lt;sup>1</sup> Reliquary and Illustrated Archæologist, April 1899, p. 75.

popularly called *Bruce's Hand-basin* (see View, fig. 13). Descending now the steps, we note their curvature and the various niches on the west wall, in connection with which it is not easy to understand how the much slighter ones on the opposite wall could have been of any



Fig. 12. View in passage to Chamber F.

use, since no two are precisely opposite, and the cave here is fully 13 feet wide. In a straight line from the centre of the threshold, and at a distance of 25 feet from the lowest step, we reach the verge of the Well, a huge circular shaft over 30 feet deep from this point and nearly 6 feet wide. At the level of the cave roof, here just 6 feet high, the hollow sides of the well have several bar-holes, and two long and deep

horizontal slots, evidently for the purpose of fixing beams or bars to carry a massive wooden lid (see fig. 14); for, far down in the well-shaft—18 feet 4 inches, to be exact—a tunnel-mouth may be seen, trending in a southerly direction, really the beginning of a passage, like the rest, hewn, and nearly 6 feet high, quite explorable for about 55 feet. The further end of it is choked up with fallen stones and earth (?). But it



Fig. 13. Bruce's Hand-basin.

is obvious this has been a secret exit, if indeed it did not lead into other and deeper chambers still. Opposite the iron railing, set in its concrete base, from which these observations are made, there is a space 6 feet wide and about 4 feet high of solid masonry. If we now retrace our steps to the division wall (W, fig. 11), and explore the long and nearly straight but yet irregular passage leading to the present entrance N, we pass an opening Q, and, descending by two steps, examine the long and narrow chamber there (L, 25 feet by 6), at the

inner extremity of which we touch the other face of the same masonry just observed at the well; but there is a large space between the two to account for. Is it all solid masonry, or are there two walls? In either case, may this not be the site of the foot of the stair said to

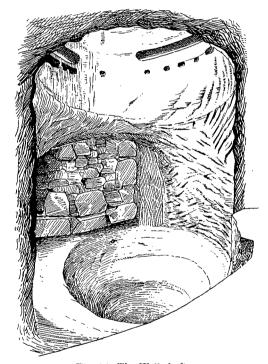


Fig. 14. The Well-shaft.

have communicated with a trapdoor in the floor of the banqueting hall above, now the courtyard? It is also to be noted that, as the floor of the long chamber L is 2 feet 3 inches below the level of the floor of the rest of the cave, there is that difference in vertical height to be further accounted for between the two faces of the wall at the

well, which is another piece of evidence in favour of the explanation here offered regarding the stair.

At N is a flight of five steps, each levelled up nowadays with a layer of concrete fully 3 inches thick in the middle, showing that much

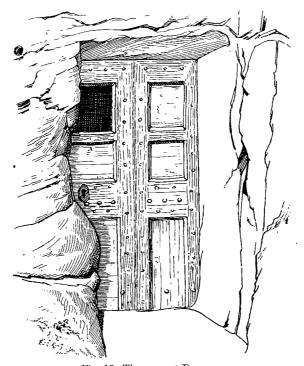


Fig. 15. The present Doorway.

and frequent use must in the old times have been made of them. Above, in the angle formed by the turn of these steps, at S, is a broad triangular shelf. Emerging here by the present doorway, we get a good view of it and the rock-hewn entrance (5 feet 10 inches high), with a single bar-hole above it on the left (fig. 15); while, along the

face of the rock, 20 feet to the left, is one of those puzzling niches, its ledge 18 inches above ground, its height and breadth 2 feet, and receding into the rock for 15 inches.

Description of some of the Details in the Upper Cave.—In he outer, i.e. the riverside, wall of the long chamber J on the ground-plan there is a piece of masonry (P, in fig. 16), and just behind it on the right a

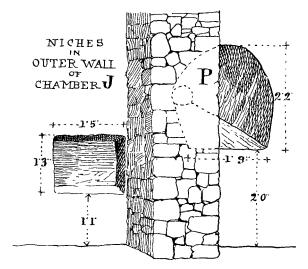


Fig. 16. Details in Chamber J.

deep niche running through the entire thickness of the rock, 2 feet 2 inches high on the inside and 1 foot 9 inches broad. It tapers off outwards into a circular aperture of about the width of a musket-hole. On the left of the same walling is a shallow, neatly-cut, nearly square niche 13 inches above ground and 15 inches in height.

At another part of the same chamber, in the east angle, there are two curious slots cut into the wall, comparatively low down. One is only 12 inches above the ground, and is curved and in horizontal length

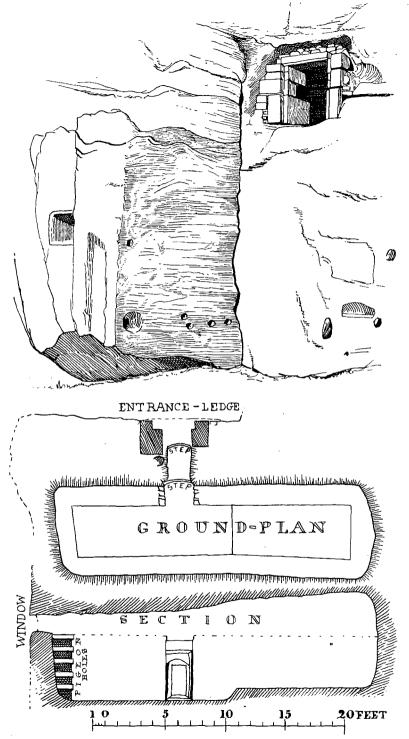


Fig. 17. View of Rock-face with entrance, and interior ground-plan and section of Lower Cave, Hawthornden.

1 foot 9 inches; the other is 3 feet long horizontally and has a downward right angular turn of about 9 inches, its deepest cutting being at the base of this turn, and the rest becoming shallower as it runs out to the right.

2. Lower Cave.—This single-roomed excavation is situated slightly to the west of the same rock-face as that of the upper cave; but it has only the one entrance, which must be reached by a ladder. At this point (see fig. 17) the rock has a natural but very rectangular cleavage, the projecting mass to the left being about 8 feet forward of the perpen-

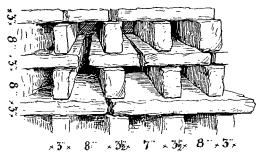


Fig. 18. Construction of the Dove-cots in the Lower Cave, Hawthornden.

dicular face into which the entrance is hewn. In both these faces several bar-holes are so placed that stout pieces of timber 10 or 12 feet long could be slipped into them, and, thus filling up the angle, serve as steps from which the entrance-ledge could be reached. If the timbers were then drawn up, the cave would be absolutely unassailable, as the ledge is over 8 feet above the ground. In the same projecting rock, still more to the left than the bar-holes, is a square recess or small niche, measuring 11 inches by 10 inches by 7 inches in depth. The size of the entrance between the present door jambs is 3 feet 7 inches in height by 2 feet 6 inches in width. There is evidence in this cave also of, I think, three periods of use and occupation. That which is most you. XLV.

obvious, and the latest, is the one that confronts the explorer on the moment of entering through the low and narrow doorway into the oblong chamber opening out on either hand. The walls are lined all round with rows of square holes (fig. 18) 8 inches high, 8 inches broad, and varying from 15 to 24 inches deep. They are built of freestone



Fig. 19. Doorway of the Lower Cave, Hawthornden, from the interior.

slabs, which vary in length from nearly 3 feet to 10 or 11 inches, but are all pretty uniformly 3 inches in thickness. I show in fig. 17 a Ground-plan of this cave, with longitudinal section below, in which a rise in the floor of 10 inches is carried out in the roof; and at this end, the right hand as we face the doorway (fig. 19), the form of the hewing of the sides differs from that below and west of the ledge. In that half, the roof is deeply arched from a spring of 4 feet 3 inches

above the floor, but in the higher half the roof is less and less arched, the walls gradually heighten, till at the extreme east end the angle of junction is, rudely, a right angle.

There is a window at the west end, broader than high (in this respect resembling the upper cave window): more one cannot allege, as the twisted branchlets of aged ivies fill and grip fast almost all over it. The backs of the pigeon-holes are in many cases filled up with stone and lime, showing that the builder required to make up for the curve of the rock wall. They stand in rows of five deep; and there cannot be fewer than 280 of them in all. Several bar-holes occur, four of them so close up into the line of junction between wall and roof that their usefulness seems open to question; and on the N.E. side of the right-hand chamber there is, as I discovered by removing stones and lime from one of the pigeon-holes, a deeply-cut neat niche, flat-edged and well arched, about 21 inches high and 18 broad. Another fact is that the whole rock-interior is blackened with smoke; this must have occurred previous to the building of the pigeon-holes, as they do not show any signs of it.

The curvilinear walls, the niche, and the bar-holes speak of the earliest occupation; during which, the entrance was a narrow slit, left rough on the outside, but rudely checked on the inside, and fitted with bar-holes of sufficient strength to hold up a strong wooden door. The end window may or may not have been coeval with this use of the cave. Next came the time when the entrance was made of deeply-checked blocks of stone; and to what special uses this safe retreat was then put we have no means of even conjecturing. Lastly, the interior was filled with the pigeon-holes.

(4) Cave at Newbattle.—In examining and measuring this cave on the 27th April 1899, I was greatly expedited by the experience and knowledge of Mr Ramsay, land steward on the estate. It presents no intricate features, and has been hewn out of the very even-textured, warm, grey-tinted sandstone, with much more regularity and rect-

angularity than any other as yet known to me. It is situated on the right bank of the Esk, a short distance below Newbattle bridge, and about 220 yards distant in a south-easterly direction from the nearest corner of the mansion-house. It consists of four distinct spaces, trending S.E., two passages (A and B, fig. 20), respectively 26 and 21 feet 9 inches long, a short and very narrow passage (C), and the terminal chamber D, measuring 15 feet 3 inches by 9 feet 6 inches. The

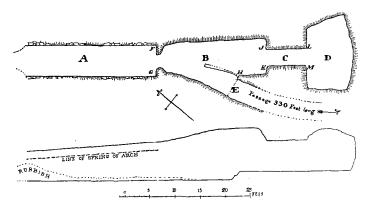


Fig. 20. Ground-plan and Section of the Cave at Newbattle.

entrance is built; and the building extends inwards, in irregular breadths, just where required to make up for the want of rock, nearly all the way into the angle of the first door jamb (F G). Beyond, all is solid rock. Halfway along the second passage B are two steps about 18 inches high in the middle of the passage, but thinning down level at H, where the rock forms a sort of pillar. The general height of the roof is shown in the section; and the two inner doorways J K and L M are considerably wider in the middle of their vertical height than at either top or base. On the back wall, exactly opposite the angle L, there is a sloping-roofed shelf (similar to those already noticed so frequently) 2 feet 6 inches above ground, 10 inches

deep, and 6 inches wide. On the east wall is a round bar-hole 4 feet 3 inches above ground; and on the back wall there is another, almost in the angle, only 1 foot above ground. In the middle passage B, near the "pillar" H, is another sloping-roofed recess 2 feet 9 inches above ground, 15 inches wide, and 6 inches deep. At E is the mouth of an extraordinarily long passage, unluckily leading nowhere; measured by tape it was found to be 330 feet long, of an average height and breadth of 4 feet, with two expanded spaces far in the rock, and numerous slots, bar-holes, and narrow shelves of the well-known type at various points. The passage has, apparently, no outlet, its inmost extremity being rock as solid and as homogeneous in texture as any other part of these caves, and its walls are somewhat more vertical than usual. This cave, spite of its entrance of solid masonry, is the reverse of conspicuous. At the date of my visit the mouth was more than half filled up with earth, small stones, leaves, and other rubbish, which had gathered from the sloping banks around, and been allowed to drift down into it. The river flows past about 9 yards away, at the foot of a gentle declivity, and there are no precipitous rocks near the site. The level of the floor of the entrance passage is 4 feet above the bed of the river.

(5) Saint Margaret's Cave, Dunfermline.—Tradition has long associated with the memory of the queen of Malcolm Canmore a certain small rock-hewn chamber situated on the steep bank of the Tower Burn, which winds southwards at the west end of the town of Dunfermline, and at about the distance of a furlong or so from the palace itself.

In previous brief notices, the cave is observed to be much choked up with refuse and litter; <sup>1</sup> this, at one period (up to 1877), had become so great as to utterly conceal the two side seats, a feature which, with others to be presently mentioned, this cave possesses in common with the others herein described. A small view of the cave

<sup>&</sup>lt;sup>1</sup> See App. D in Henderson's Annals of Dunfermline.

is given in Henderson's Annals, taken from Baine's View of 1790, and it is mentioned also in Chalmers' History of Dunfermline, where, amongst other things, we read that "a person not long since dead [1844] was wont to relate that he knew an aged man who said that he had seen in the cave the remains of a stone table, with something like a crucifix upon it."

In the "rockeries," close to the entrance, are several pieces of carved stones; and above the rocky ledge, over the middle of the entrance, is a stone with a large circular cavity set in between several unmortared stones.

At present the site is thickly planted with trees, whose foliage in summer prevents one seeing the character of the contiguous banks, but, as far as possible, I discerned the little rocky precipice in which the cave is hewn to be about midway between the summit and base of the slope on the eastern bank of the Tower Burn; it seems, indeed, to be the only available mass of the sandstone on this bank. Unlike the other caves, the entrance of this one is not in one plane, the right-hand or south wall, standing back nearly 5 feet from the line of the rock on the left, which has a groove in it. This will be understood by glancing at the Ground-plan (fig. 21), and noting the points A and C. The groove beyond A is cut vertically in the projecting pillar-like mass of rock; so also, in the portion next within, a piece has been squared off. Near the top of the pillar is an oblong bar-hole.

Behind the pillar are a couple of shallow recesses, not squared enough to have served the purpose of containing a figure, or even a lamp. The north wall, with its irregularly-curved side and bench, is quite plain throughout; the end wall is equally devoid of any artificial marks; but in the south wall (see fig. 22), at a point 4 feet from the back and 2 feet 10 inches from the front of the cave, a deep, well-formed niche has been hewn, in height 2 feet 3 inches and in breadth 1 foot 3 inches. Its base, which is  $10\frac{1}{2}$  inches deep, is 2 feet 3 inches above the

bench; and, like all the other niches elsewhere described, its top is cut back at an oblique angle (see Section, fig. 23). Near the south

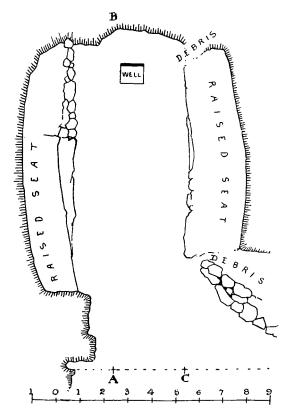


Fig. 21. Ground-plan of St. Margaret's Cave, Dunfermline.

angle, outside, on the face of the rock, there is a similarly formed but smaller niche, measuring 1 foot in height, 1 foot in breadth, 9 inches in depth of base, with the addition of a sharply-defined "socket"  $4\frac{1}{2}$  inches wide and deep in the middle of the base. Close to it is a deepish

circular bar-hole; and 2 feet 4 inches below, another and larger one 7 inches wide by 3 inches deep. Neither of these bar-holes is on

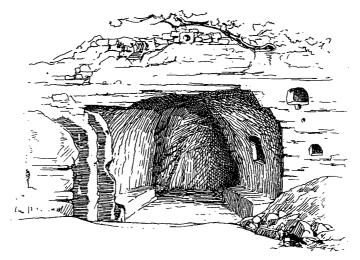


Fig. 22. View of interior of St. Margaret's Cave, Dunfermline.

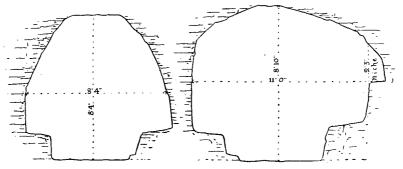


Fig. 23. Sections of St. Margaret's Cave, Dunfermline.

the same level as that on the face of the pillar-like projecting rock on the north side of the entrance.

Near the back of the cave is a well, now covered over with boards. People, I was told, were still in the habit of filling jugs here and taking the water home. The water of this well, says the Rev. P. Chalmers, "rises at times and covers the whole lower space."

(6) Saint Ringan's Cave, Billies, near Kirkcormack, Stewartry of Kirkcudbright.—This cave, which goes by the name of Saint Ninian, in its popularly corrupted form of Ringan, is in the parish of Kelton, on the bank of a small streamlet flowing down from Black Stockerton moor into the river Dee close to the ruins of Kirkcormack.<sup>1</sup> The relative position of these to the mote may be seen in the plan given at p. 383 of the twenty-fifth volume of the Proceedings; in the footnote to which description I have quoted Muir, to the effect that there might possibly have been "a cell or sacellum consecrated here in honour of the Cumbrian apostle." Apparently, the author of Characteristics had not heard of this cave. Without being able to prove its use and occupation as such a cell or hermitage, I have thought it desirable to put a plan and a few notes of it on record. The rock here is totally different from the well-bedded, easily worked sandstones which characterise the other caves noticed here up to this point. It is of the Silurian formation, a little less compact and hard than the most, and indeed inclining to brittleness and shaly composition. It would not be excessively difficult to hew or pick out such a long and narrow tunnelling (see fig. 24), which is simplicity itself, and consists of a passage running due east 33 feet, another of the same length going north, and a third going north-west 54 feet long, at the extremity of which is a squarish recess, with a seat-like block about 3 feet wide. The east recess has no such adjunct. The arched roof, very roughly hewn, is throughout of a uniform height of nearly 6 feet; and the breadth throughout is about 4 feet, also variable and uneven. At the time of my examination the floor was in some places several inches deep in water, which drips from the roof. This we ascertain to be caused by

<sup>&</sup>lt;sup>1</sup> It is also called The Covenanters Cave.

the deeply-cut channel of a mill-lade directly above a large portion of the cave.

In former times, however, this cause of dampness did not exist; and

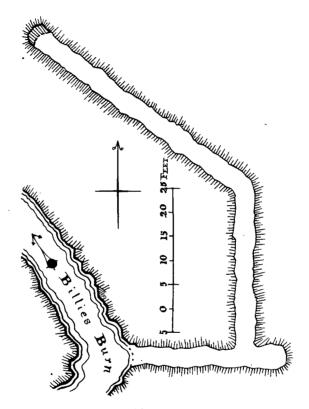


Fig. 24. Ground-plan of St. Ringan's Cave, at Billies Burn, Kirkeormaek.

though so narrow, and apparently unprovided with any of the appliances for timber bars such as the Mid-Lothian caves possess, it is not improbable that Saint Ringan's Cave was really a shelter and refuge

in troublous times—for which its very secluded and not easily reached situation was all the more adapted.

(7) Hurly Cove, Penicuik.—This cave I visited with Mr C. W. Dymond, F.S.A., on the 15th June 1903. It is situated at a height of 700 feet above sea-level, on a ridge of the sandstone rock abutting on the south bank of the river Esk, at a point rather less than half a mile S.W. of Penicuik House. The land on the north side of the Esk here is quite flat, and scarcely higher than the river itself; but on the south side this long-extended sandstone ridge rises some 90 or 100 feet above the bed of the stream; and in its lower section, at perhaps 20 feet above the same level, it is pierced at right angles by this long, straight, and downward-sloping tunnel called Hurly Cove. Opposite the southern of its two open extremities lies a pond; at its northern end the rock verges on the river. The cave slopes downward from the south to the north; and measured along the line of this slope the length of the cave is 152 feet 9 inches. The average breadth is about 4 feet 3 inches, and the height varies from about 6 feet to fully 9 feet nearer the upper entrance.

About midway along this tunnel, there has been hewn into its west wall a nearly circular recess 7 feet 9 inches in diameter, and in height from the level floor to the flat-domed roof 6 feet 7 inches. There is a low seat hewn out of the rock about a foot wide, and carried all round, except where the entrance from the long cave comes in. On the north curve of the recess the rock has been smoothed and dressed a little so as to resemble a panel, which measures  $25\frac{1}{2}$  inches by 18 inches, and bears four lines of an abruptly terminated inscription. The date 1742 is cut into the rock near the roof of the long cave at more than one point; and a large proportion of this tunnel is walled with masonry, as well as the extremities which are really arched doorways, having alternately a plain stone, and a stone carved in the rustic fashion prevalent at about the period indicated by the inscription.

(8) Cave at Cove House, Kirkpatrick-Fleming, Dumfriesshire.—This

rather peculiar specimen is situated some 130 yards S.W. of the house, and on the precipitous cliffs of the Kirtle Water. I am indebted to Mr James Barbour, architect, Dumfries, both for acquainting me with the fact of its existence and for various notes and measurements.

The Cave is commonly called Bruce's cave.

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