

# THE MILITARY ROAD FROM BRAEMAR TO THE SPITTAL OF GLEN SHEE

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THAT the highway from Blairgowrie to Braemar (A 93) follows the line of an old military road is a matter of common knowledge, though the work is often attributed, wrongly, to Wade; but its remains do not seem to have been studied in detail on

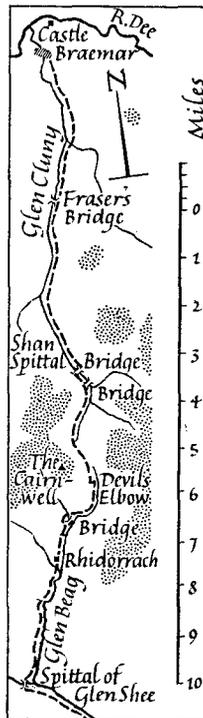


FIG. 1. The route from Braemar to the Spittal of Glen Shee. Highway A 93 is shown as an interrupted line, and ground above the 2500-foot contour is dotted

the ground, while published notes on it are meagre and difficult to find.<sup>1</sup> The present paper is accordingly designed to fill out the story of the sixteen miles between Braemar and the Spittal of Glen Shee (fig. 1).

Glen Clunie and Glen Beag, with the Cairnwell Pass between them,<sup>2</sup> have no

<sup>1</sup> For an outline of its history see Fraser, G. M., *The Old Deeside Road* (1921), 209 ff.

<sup>2</sup> See O.S. 6-inch map of Aberdeenshire, 2nd edn. (1901), sheets xcvi, cvi, cxv, surveyed in 1866 and revised in 1900; ditto Perthshire, 2nd edn. (1901), sheets viii SW., xiv SE., xv SW., xv NW. and NE., xxiii NE., surveyed in 1862 and revised in 1898. The edition on National Grid lines does not yet (1964) include this area, and six-figure references are consequently taken from the O.S. 1-inch map, 7th series, sheet 41 (Braemar). All are in 100-km. square NO.

doubt been used by travellers since the earliest times. 'Spittals' at Shean Spittal,<sup>1</sup> below the northern end of the pass, and in Glen Shee, at the lower end of Glen Beag, are themselves evidence for such traffic, and the passage of armies, raiders and drovers is also amply recorded.<sup>2</sup> There is nothing, however, to suggest that any military road-work was done before Braemar Castle, then roofless, was acquired for the purposes of a garrison in 1748<sup>3</sup>; as the Government seems, until then, to have overlooked the strategic value of Braemar though the place had been considered 'very fitt' for a garrison as early as 1689,<sup>4</sup> and the ruins of Kindrochit Castle, at the Castleton of Braemar, survived as a kind of object-lesson from earlier days.<sup>5</sup> That the work was begun in 1748 is shown by a contemporary Board of Ordnance plan preserved in the National Library of Scotland<sup>6</sup>; this is entitled 'Sketch of the Ground about Braemar Castle. 1748', and marks the road's northernmost stretch. Its testimony is backed by another Board of Ordnance plan, likewise in the National Library,<sup>7</sup> the legend of which reads 'Survey of the Road made by the Detachment of Gen<sup>l</sup> Guise's Reg<sup>t</sup> in Brae Marr; beginning where Gen Blakeney's left off: & Continued to the Spittle of Glenshee. 1749'. This second plan indicates that Gen. Blakeney's party arrived, in 1748, at a point about 1000 yds. south of the junction of the Baddoch Burn with the Cluny Water (138825), and that Gen. Guise's carried on, in 1749, to a point about two miles above the Spittal (122730). A third plan<sup>8</sup> shows that the remainder, as far as the Spittal and beyond, was 'made by a Detachment of one Hundred Men of Lord Viscount Bury's Reg<sup>t</sup> in the year 1750'. Further confirmation is supplied by the officer commanding the post at Braemar in 1750, who reported in June of that year 'On Wednesday I set out for the Spittle of Glenshee . . . we marched along the Made road through Glen Cluny to Glen bogg [Beag], so to the spittle there'.<sup>9</sup>

So far the record seems clear, but a serious difficulty remains in the existence of a second road over part of the distance. Thus in addition to the military road proper, identified by the Board of Ordnance plans, we find about a mile and half of rather narrower road diverging from the line of the former to take a short cut across a projecting shoulder of the Cairnwell in squares 1477, 1376 and 1375; and it is this short cut that is marked on Roy's map of Scotland as the course of the road from Braemar, and not the detour east and south-east of the shoulder that is made by the military road – and also, with modifications, by Highway A 93 (fig. 2).

<sup>1</sup> *Collections for a History of the Shires of Aberdeen and Banff*, 'A View of the Diocese of Aberdeen', Spalding Club (1843), 642.

<sup>2</sup> For example, *P.S.A.S.*, LVII (1922–3), 82; Wishart, Rev. G., *The Memoirs of James, Marquis of Montrose*, ed. Murdoch, Rev. A. D., and Simpson, H. F. M., 106, 150 n. 3, 155; Mackay, Maj.-Gen. Sir H., *Memoirs of the War, etc.*, Bannatyne Club (1833), 327, 329; *Transactions of the Gaelic Society of Inverness*, xiv (1887–8), 181; Haldane, A. R. B., *The Drive Roads of Scotland*, 117, 129.

<sup>3</sup> *Stat. Acct.*, xiv (1795), 351; *Historical Papers relating to the Jacobite Period: 1699–1750*, New Spalding Club (1899), II, 514.

<sup>4</sup> Mackay, Maj.-Gen. Sir H., *op. cit.*, 42.

<sup>5</sup> *P.S.A.S.*, LVII (1922–3), 83 ff.; LXIII (1928–9), 116.

<sup>6</sup> Ref. No. MS 1649 Z 3/32c.

<sup>7</sup> Ref. No. MS 1649 Z 3/32a. The plan is signed 'I. Archer', and is endorsed 'Received with Mr John Archer's letter from Edinburgh dat. 28 Novr 1749'.

<sup>8</sup> Nat. Lib. ref. No. MS 1649 Z 3/38a. This plan is signed 'G. Morrison Engineer', and is endorsed 'Recd with Mr. Morrison's Letter to the Board 23<sup>rd</sup> Febr'y 1750'.

<sup>9</sup> *Historical Papers relating to the Jacobite Period: 1699–1750*, New Spalding Club (1899), II, 543.

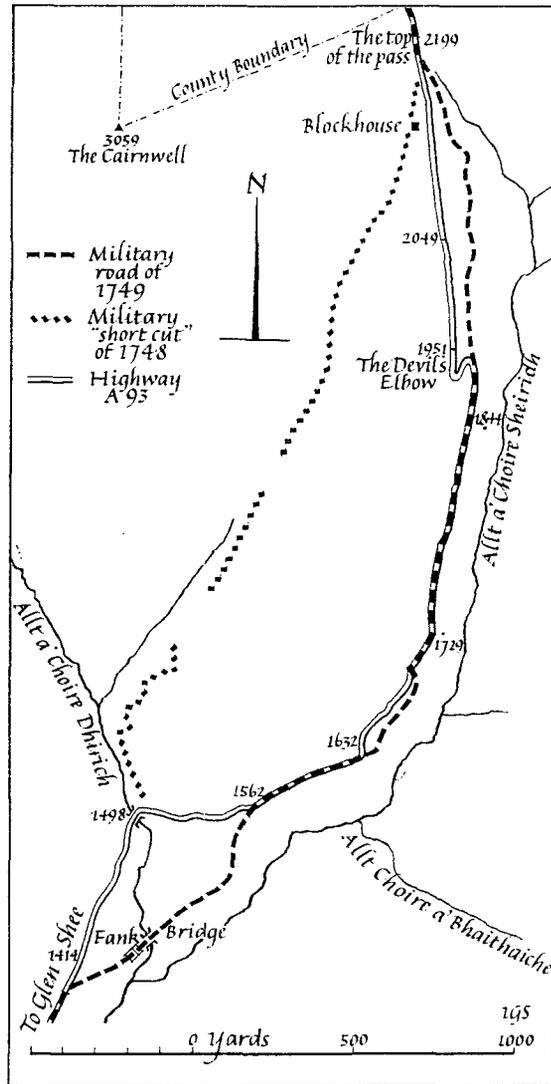


FIG. 2. Sketch-map, from air photographs, of the Cairnwell area, showing the relationship of the military roads to Highway A 93

Work on Roy's map was begun in 1747,<sup>1</sup> and no information is available as to which regions were surveyed in any given year; but, as we have seen that Braemar was not occupied before 1748, and as by 1749 the corresponding section of the military road proper must have been built or in course of building, it seems necessary to conclude that Col. Watson's surveyors were on the Cairnwell in 1748, and that what they marked was a newly-built military road of which we have no other record. This would probably imply that the Cairnwell shoulder, being the most difficult part of

<sup>1</sup> Chalmers, G., *Caledonia* (1824), II, 64.

the route, was tackled as soon as it was decided to garrison Braemar Castle – i.e. perhaps early in 1748 – but that the resulting road was so bad that it had to be replaced, in the following year, by the military road as we know it. It may, of course, be argued that the short cut could have been built, at some altogether earlier date, by the local authorities under the legislation of 1669 and later,<sup>1</sup> and the fact that Glen Ogle could be passed by a light two-wheeled chaise before any military work there was begun<sup>2</sup> shows that something better than crude customary tracks might exist in the Highland area. On the other hand, as will appear below, such features as kerbing, the revetment of scarps, underbuilding on transverse slopes, and the provision of rock-fragments in pile for use as metalling, appear both on the short cut and on the military road proper, and strongly suggest a common origin. It is plain, in any case, that the short cut's general characteristics are not those of a customary track, and the conclusion that it was something other than this is reinforced by the fact that Roy ignores other customary routes in the neighbourhood, such as the important one from Glen Cluny to Glen Isla by way of the Monega Pass. Whether, or to what extent, either the short cut or the military road proper followed the line of a pre-existing customary route is quite uncertain; the evidence, which is mentioned from place to place below, is slight and scattered, but the existence of such a route is most likely on general grounds. The short cut is ignored both by Stobie's map of Perth and Clackmannan (1783) and by the Ordnance Survey; and its appearance on Robertson's map of Aberdeen, Banff and Kincardine (1822) may be simply an antiquarian conceit, as Robertson titles the military road in Glen Beag 'Romanum iter suppositum' and gives the same legend to a customary track from Invercauld to the Avon.

Before proceeding to consider the remains on the ground, it will be well to recall that stretches of obsolete track can only be taken as illustrating a road's condition at the time of their actual abandonment, and not necessarily its original character. For example, the military road between Braemar and the Cairnwell was rebuilt in the 1860s by the Prince Consort and Farquharson of Invercauld,<sup>3</sup> while many further changes have been made down to the present, particularly in the interests of motor traffic. Earlier, too, it is on record that the Braemar heritors were active in the maintenance of their roads, commuting the statute labour and employing a 'road-grieve' with a gang while the commutation funds held out,<sup>4</sup> and operations of this kind must inevitably have modified a road's former appearance. The differences between military and commercial requirements should also be borne in mind.<sup>5</sup>

After leaving Braemar Castle, which stands less than a mile north of the Castleton of Braemar, the military road crossed the Cluny Water by a bridge and ran on up the left bank. Why it should have done this is a puzzle, as the choice of the left bank entailed the building of Fraser's Bridge (p. 236), some three miles further upstream,

<sup>1</sup> *A.P.S.*, vii, 574 ff.; viii, 18, 590.

<sup>2</sup> Notes accompanying 'The Wade Roads', preserved by the Royal Scottish Geographical Society. I am indebted for this reference to Mr H. Fairhurst, M.A., PH.D., F.S.A., F.S.A. SCOT.

<sup>3</sup> Fraser, G. M., *The Old Deeside Road* (1921), 212; Queen Victoria, *Leaves from the Journal of our Life in the Highlands* (1868), 243.

<sup>4</sup> *Stat. Acct.*, xiv (1795), 345 f.

<sup>5</sup> As noted in the *Transactions of the Gaelic Society of Inverness*, xiv (1887-8), 185 f.

if not also the building, or the rebuilding then or later, of the bridge in question in Braemar.<sup>1</sup> The arrangement, however, is clearly illustrated by a Board of Ordnance 'Sketch of the Ground about Braemar Castle. 1748', preserved in the National Library of Scotland,<sup>2</sup> and also by Roy's map of Scotland, this part of which must have been surveyed before 1749 (p. 228). Most probably General Blakeney's party adopted for their new road a customary route to the south from Inverey and the upper Dee, for which a left-bank course would have been natural; and such adherence to an existing road-line is the more likely as the ground that they had to traverse is shown by the 'Sketch' to have been under cultivation.

As regards a right-bank route, the engineer James Flint states<sup>3</sup> that in 1832 no road existed there, but only a 'ride' two miles long made by Farquharson of Invercauld; and he suggests that one should be built as part of a new route from Perth to Inverness. He points out that it would eliminate Fraser's and Kindrochit (Braemar) bridges, and could incorporate the 'ride', which would only need widening and gravelling. Robertson's map, however, which antedated Flint's proposals by ten years, shows not only a right-bank road but also a branch-road crossing the Clunie from it to the military road (*infra*). The contradiction is difficult to explain unless Robertson's right-bank road was so bad that Flint simply ignored it.

In its northernmost stretch the military road seems to have followed the same line as the existing by-road leading past the golf-course, and no early traces survive. A short distance north of Allt Coire na Meanneasg, however, it was joined by the branch, just mentioned, that is shown on Robertson's map, the grassy terrace of the latter disappearing under the former as now reconstructed. The branch is up to 10 ft. wide, and where it mounts a bank it has been scarped to a depth of 6 ft. and is well built up underneath. It reaches the river just upstream from the mouth of the Coldrach Burn, at a narrow rocky linn; this has evidently been spanned by a wooden bridge, as the roadway resumes on the opposite bank and runs on until obliterated by A 93 at about 154881. Just before its disappearance it crosses a ditch some 4 ft. deep on a fill of dry-stone masonry.

Between Allt Choire na Meanneasg and Fraser's Bridge, two stretches of an older road, no doubt the military work, appear from under the modern by-road. The first, about 120 yds. long, begins at about 151877, and crosses the top of a knoll just west of the by-road. It consists of a terrace bordered on its lower side by a kerb of boulders (Pl. XIX, 2); the cutting on the knoll is up to 2 ft. deep and the roadway is up to 9 ft. wide. Ditches are absent and the metalling is scanty, but at the southern end there are some remains of a well-built culvert. The second begins more than half a mile further to the south, appearing from under the west side of the road some 330 yds. north of Fraser's Bridge. It is here a grassy terrace 13 ft. wide, but widens to 17 ft. where it curves down towards the bridge; there are also some traces of a quarry which probably served for the filling of a mossy hollow just west of the end of the bridge.

<sup>1</sup> For an illustration of an old bridge in Braemar, perhaps originally built to carry the military road but removed in 1863, see Fraser, G. M., *op. cit.*, fig. 36.

<sup>2</sup> Ref. No. MS 1649 Z 3/32c.

<sup>3</sup> *Report on the Proposed New Road from Perth to Elgin, etc.* (1832), 3, quoted by Fraser, G. M., *op. cit.*, 211.

The next feature of interest is Fraser's Bridge itself (Pl. XIX, 3), where the road crosses to the right bank of the river. That the existing bridge, as a whole, is as old as 1748 is far from certain, as heavy pointing has hidden much of the structural evidence, but the arches and central pier are probably original. Some initials and dates cut on the parapet suggest that extensive rebuilding took place when the right-bank road was reorganised in the 1860s; and this is the more likely as Flint records that the bridge was 'somewhat crazy, its parapets being swayed from the perpendicular and its mortar apparently not in a good state of adhesion'.<sup>1</sup> Fraser himself regarded the structure as original,<sup>2</sup> and the general appearance of the work suggests some affinity with Invercauld Old Bridge,<sup>3</sup> which he dated to 1752.<sup>4</sup> Structural details are given below in the Appendix.

For the four miles between Fraser's and Shean Spittal bridges there is little of interest to record. A 93 follows the course of the military road, and improvements seem to have obliterated most, if not all, of the work originally done. These improvements include both the work done by the Prince Consort and also some earlier, and apparently extensive, operations recorded by Flint. 'Here', he says, 'of late years much has been done in forming a new road, which, though too narrow for a turnpike, has in general been most judiciously and skilfully laid out under the direction of Mr Roy, the intelligent factor for Invercauld.'<sup>5</sup> One major divergence from the modern line was noted, extending for approximately half a mile through square 1484 at a slightly higher elevation; it is up to 15 ft. wide, but has no ditches and seems deficient in metalling. Though there is a fairly wide belt of flattish ground along this part of the valley-bottom, the road-makers have tried to take advantage of areas which are naturally dry, such as glacial ridges and hummocks, and some side-cutting has consequently been necessary at a number of points. Archer's plan of 1749, into the area of which we have now entered, shows a bridge on one small tributary burn, probably the one that runs in some 600 yds. north of Shean Spittal Bridge, but no trace of it can be seen today; another tributary, half a mile further north, seems to have been forded. Archer notes that the 'rivers' are in most places fordable, but that they are liable to overflow the road if dammed or obstructed; and he continues 'especially after any Rain I have observed the Rivers to rise and fall upwards of two foot in three or four hours'.

At Shean Spittal Bridge (145805) A 93 departs altogether from the course of the military road, adopting the new line laid out in the 1860s and leaving the remains of the earlier work as they were. For the half-mile to the inflow of Allt a' Ghairbhechoire (148799) the road remains on the east side of the main stream, here no longer marked as the Cluny Water but as the Cairnwell Burn,<sup>6</sup> and is clearly defined as it is still used by pedestrian traffic to and from Glen Isla. It keeps close to the bank, which is revetted from place to place with dry-stone building; and for much of the distance a mound, of earth with large stones and boulders, guards the side towards the water. Where hummocks have had to be cut through, the roadway is about

<sup>1</sup> Fraser, G. M., *op. cit.*, 211.

<sup>2</sup> *ibid.*, 210.

<sup>3</sup> For illustrations, see *ibid.*, figs. 34, 35.

<sup>4</sup> *ibid.*, 213.

<sup>5</sup> *ibid.*, 211.

<sup>6</sup> 'Water of Brouch' on the plan of 1749; 'Vishk Vruic' on Robertson's map of 1822.

10 ft. wide; there are no lateral ditches for drainage, and the scatter of small stones on the surface can hardly be called metalling. Just short of the mouth of Allt a' Ghairbhe-choire the road turns on to a bridge (Pl. XX, 2), on which its width can hardly have exceeded 9 ft. 6 in. Structural details are given below in the Appendix. The well-made ramp, 7 ft. wide and constructed mainly of boulders, that leads up a bank above the western end of the bridge, does not seem to be part of the road-works, and was probably built at some relatively recent date to carry the footpath that leads up to A 93.

From this bridge the road continues up the left bank of the Cairnwell Burn, maintaining a general breadth of about 12 ft. Above it on the west there rises a steep slope, across which A 93 is terraced at higher levels; the belt of more or less even ground by the burn-side is consequently narrow, and cuttings or terracing have been needed where ridges or hummocks intrude. The roadway is poorly constructed, without any signs of bottoming, and the scanty gravel visible on the peaty surface may well have come there naturally. Wet hollows, however, have been filled, in one case from two considerable quarry-pits; and opposite the mouth of Allt Choire Fionn, where the road impinges on the burn-bank, this has been strengthened with dry-stone revetment now partially washed away. An unusually drastic improvement has been the cutting of a passage through a knoll to a depth of fully 8 ft. An interesting feature of this section is the first appearance of cut-off drainage on the upper side of the road; 'back drains' are marked on the plan of 1749 along most of that year's portion, and a well-marked stretch extends upstream from close to the bridge at Allt a' Ghairbh-choire.

At the upper end of the valley the natural gradient steepens, and this has resulted in difficulties and a change of plan. As first built, the road followed the course of a customary track, running up towards A 93 at gradients of up to 1 in 5 and finishing some 15 yds. short of it at a point 100 yds. south of spot-level 1887. Work stopped here at a large knoll of gravel and rock, which was never cut through, though a slight ditch, to mark the scarp side of the road, was dug in advance of the main excavation and reaches as far as the margin of A 93, itself in a cutting. The customary road that the military party followed appears, lower down the slope, as a belt of hollow tracks, much obscured by rank heather; these combine, higher up, to form a terrace up to 8 ft. wide, and the terrace, on the top of the knoll, becomes a single trench-like hollow. These traces of the customary road possess some interest, as so few survive elsewhere in either glen. Work on the first line being abandoned, the road was deflected to the left at 145793, and was carried forward beside the burn round the eastern extremity of the knoll and up a steep-sided gully (B.M. 1870.1), at the head of which it runs under A 93. The change of route gave a rather easier gradient and saved further cutting at the knoll, but the gully must always have tended to retain drifted snow. From the head of the gully, through squares 1478, 1378 and 1377, as far as the summit of the pass, the military road and A 93 follow practically the same course. Where the military road can be seen, e.g. where it crosses the neck of a knoll round which A 93 makes a detour, it is from 12 ft. to 13 ft. wide. The plan of 1749 shows that none of the small burns was bridged. The

saddle itself has been greatly disturbed by modern construction, and preserves nothing of interest.

It is the section beyond the saddle that is duplicated by the short cut mentioned above on p. 227. This diverges (fig. 2) from the west side of A 93 at a point 185 yds. south of the Aberdeenshire-Perthshire march, and its initial stretch has been improved to serve a block-house of the second World War. Beyond the block-house it continues towards the south-south-west along a shelf which separates the upper slopes of the Cairnwell from the steep western flank of the valley of Allt a' Choire Sheiridh; it thus drops only very slightly from the elevation of the top of the pass (2199 ft.), and is probably still at about 2000 ft. when confronted, at the end of about 1200 yds., with the descent to the low ground in the head of Glen Beag – a drop of perhaps 550 ft. in a horizontal distance of about 800 yds.

In its course along the shelf the road is either hollowed or terraced as the lie of the ground requires, the lower side being regularly marked with a kerbing of boulders or turf. Some of the boulders are large and conspicuously spaced, as if to serve as markers in snow; the largest noted must have stood 3 ft. 8 in. high before it fell over. No lateral drains were provided, and the roadway is consequently liable to become a canal of wet moss, more particularly where it has been led along the base of the upper slope, the drainage from which it collects as gutters collect water from a roof. The breadth is regularly 9 ft., and thus markedly less than that of the military road proper. At one point there are traces of a house measuring 28 ft. by 15 ft. over foundation mounds of turf; as the house lies close beside the road and on a parallel axis, the two were probably associated in some way. After passing a conspicuous rock-outcrop on its western margin, the road is lost for about 100 yds. in a grassy swamp; but it can be picked up again on the eastern side of the swamp where it is scarped into the peat to a height of up to 4 ft. Shortly after this it arrives at the beginning of the steep descent to Allt a' Choire Dhirich, and though the ground is broken and overgrown it is possible to identify no less than ten traverses, forming a series of five zig-zags, which do something to ease the gradient. Some of the traverses are very steep, and the angles between them are sharp, particularly those nearest to the bottom of the slope where the shortest traverse is only 30 yds. long.<sup>1</sup> The zig-zags are marked very clearly on Roy's map, notwithstanding the smallness of its scale. The width of the road has here shrunk to 8 ft., but the lower margins are flanked, as before, with boulders or large blocks (Pl. XIX, 1); the scarps are also reinforced, and one of the angles between the traverses has been well built up underneath. At one point there is a heap of rock-fragments, apparently prepared for kerbing but never used. The lowermost traverse runs for some 200 yds. parallel to Allt a' Choire Dhirich and just clear of the lip of the gully, disappearing just above the bridge on A 93 at spot-level 1498. Below A 93 nothing was found, and it is possible that construction was never continued into the valley-bottom.

The line of this short cut along the shelf is one which a customary route might very naturally have followed, but hardly any evidence was found to prove that it

<sup>1</sup> Those of the zig-zags which can be made out on the air-photograph (106G/SCOT/UK 56 8 May 46 No. 3407) are shown in fig. 2.

did so. Some short lengths of hollow track were certainly seen near the house-foundations, and the air-photograph suggests others on the slope above Allt a' Choire Dhirich, but the ground hereabouts is so rough, and so heavily cut up by small watercourses, that definite conclusions are impossible.

A return may now be made to the military road proper, at the county march on the summit (fig. 2). Some 50 yds. south of the march, where A 93 is terraced out above a narrow gully at the head of Allt a' Choire Sheiridh, the military road can be seen emerging obliquely from underneath it, and itself forms a terrace following the gully downwards. This stretch is very rough and steep, the gradient of the steepest portion probably exceeding 1 in 5. As it descends into the valley the road is easy to follow, and shows the same features as were noted further north, being 12 ft. to 13 ft. wide and having scarps and boulder kerbing; the 'back drain' is well preserved from place to place as a ditch originally 3 ft. wide but now largely filled up. At about 142771 a modified S is formed by a pair of fairly open curves; some small quarries can be seen near by, and, as just mentioned on the short cut, a dump of broken rock prepared for use as metalling. The road rejoins A 93 at the bottom of the Devil's Elbow (144766), though modern works have caused a gap at the actual junction.

This section of the road must always have been very difficult, on account not only of the steepness of its upper end but also of drifted snow persisting in the gully at the top. The local road-man confirms that this gully is in fact a snow-trap. The drawbacks of the place, whatever they were, seem to have been recognised quickly, as by 1776, if not earlier, the route down the gully had been replaced by a road on the line of A 93, incorporating the familiar hair-pins of the Devil's Elbow and the straight stretch above it.<sup>1</sup> It is allowable to guess that this major piece of improvement may have been suggested by the modest S-turn, just mentioned, on the military road. Such early modifications of military roads may not have been uncommon, as Sir Kenneth Mackenzie remarks that the earlier roads, wonderful as they seemed when first built, ceased to satisfy a new generation, and that in the later eighteenth century much money was spent on improvements, including new bridges and 'new cuts'.<sup>2</sup> Steep gradients, accepted by military engineers, might be impracticable for commercial use, and in such cases it was 'found necessary to alter the lines, and cheaper to do so than to continue the repairs year after year'.<sup>3</sup>

Below the Devil's Elbow the old and new roads run together for some 1400 yds., though the former drops to a rather lower level for some 300 yds. in squares 1475 and 1375. But at a point a few yards above a conspicuous roadside quarry (137755), 350 yds. above the bridge at spot-level 1498, the military road turns steeply downhill towards the confluence of Allt a' Choire Sheiridh with Allt a' Choire Dhirich. Some good work has been done on this stretch, including a boulder-built causeway 3 ft. high spanning a damp hollow, and a set of curves similar to the S-turn above the Devil's Elbow, the lowermost portion of which has been built up underneath

<sup>1</sup> Taylor and Skinner, *Survey and Maps of the Roads of North Britain or Scotland* (1776), Pl. 26.

<sup>2</sup> *Transactions of the Inverness Scientific Society*, v (1895-9), 165.

<sup>3</sup> *Transactions of the Gaelic Society of Inverness*, xiv (1887-8), 186.

with boulders to a height of as much as 6 ft. The gradient of one short pitch between two of the turns is about 1 in  $4\frac{1}{2}$ , and Taylor and Skinner show that the road was realigned, on the easier present course of A 93, before 1776.<sup>1</sup> The road originally crossed Allt a' Choire Dhirich, some 40 yds. above the confluence, by a bridge of which only a fragment now remains (Pl. XX, 1); on the right bank it has been obliterated by a fank, but traffic to the fank has kept it clearly marked thence to the point where it rejoins A 93, close to spot-level 1414. In Glen Beag, below this point, no further trace of it was found, apart from one or two lengths of what may have been 'back drains'; and in fact the Board of Ordnance plans suggest that the rest of its course to the Spittal of Glen Shee was the same as that of A 93. The bridge of 1749 over Allt a' Charnaich has evidently been replaced, but the existing bridge at the Spittal (Pl. XX, 3) is presumably original.

In Glen Beag, however, there appear some final traces of the customary road. These consist of hollow tracks on both banks of Allt Coolah some 70 yds. to 100 yds. above A 93 (126739), the hollow on the left bank continuing as a short stretch of farm-road south-west of the house of Rhidorrach (Ruidh Dorch). The house known as the 'Old Spittal', which stands beside A 93 a short distance north of Spittal Bridge, though unlikely to be older in its present form than 1790, the date inscribed on an entrance lintel, occupies the same site as one marked on the Board of Ordnance plan of 1750, and may thus mark the point where the customary road emerged from the bottom of the glen.

A review of the main structural features of the road tells us a good deal about its builders' theory and practice, and the results are not greatly to their credit. The work shows little sign of having been properly reconnoitred, or planned as a whole, for, quite apart from the apparent fiasco of the short cut over the Cairnwell shoulder, and whether or not they were seduced by the existence of a customary track, the engineers were evidently content to remain in or near the lowest parts of the valleys until forced to extricate themselves at the cost of excessive gradients. The British soldier's antipathy to pick and shovel, combined with the cost in time of heavy side-cutting, may likewise have contributed to the defective grading. Great lack of practical competence was also shown in such matters as drainage and surfacing; the road, whether terraced and given a mounded kerb or simply hollowed out, forming a flat-bottomed ditch which held any water that reached it. 'Back drains', where provided, were no doubt a desirable improvement, but their practical effect may be questionable in the absence of exact levelling and a regular system of culverts. Nor was the roadway bottomed, nor its surface metalled; the natural stony till, or the disintegrating rock underneath, seem to have been counted on to provide a hard surface. Good features are the maintenance of a consistent breadth, at least where obstacles were absent, the efficient use of boulders and large rock-fragments in the underbuilding of curves, and the occasional filling of bog-holes with quarried material. Shortage of transport, familiar in some modern armies, is suggested by the opening of small quarries from place to place, rather than of larger ones spaced at wider intervals.

In conclusion, I wish to express my thanks to Mrs F. E. Hepburne-Scott, Mrs M. E. C. Stewart, M.A., PH.D., F.S.A.SCOT., Miss A. Young, M.A., Miss J. Gordon, B.A. and Mr W. Hepburne-Scott, M.B., who helped me in various phases of the work, and also Mr I. G. Scott, D.A. (EDIN.), F.S.A.SCOT., who prepared the drawings.

## APPENDIX ON BRIDGES

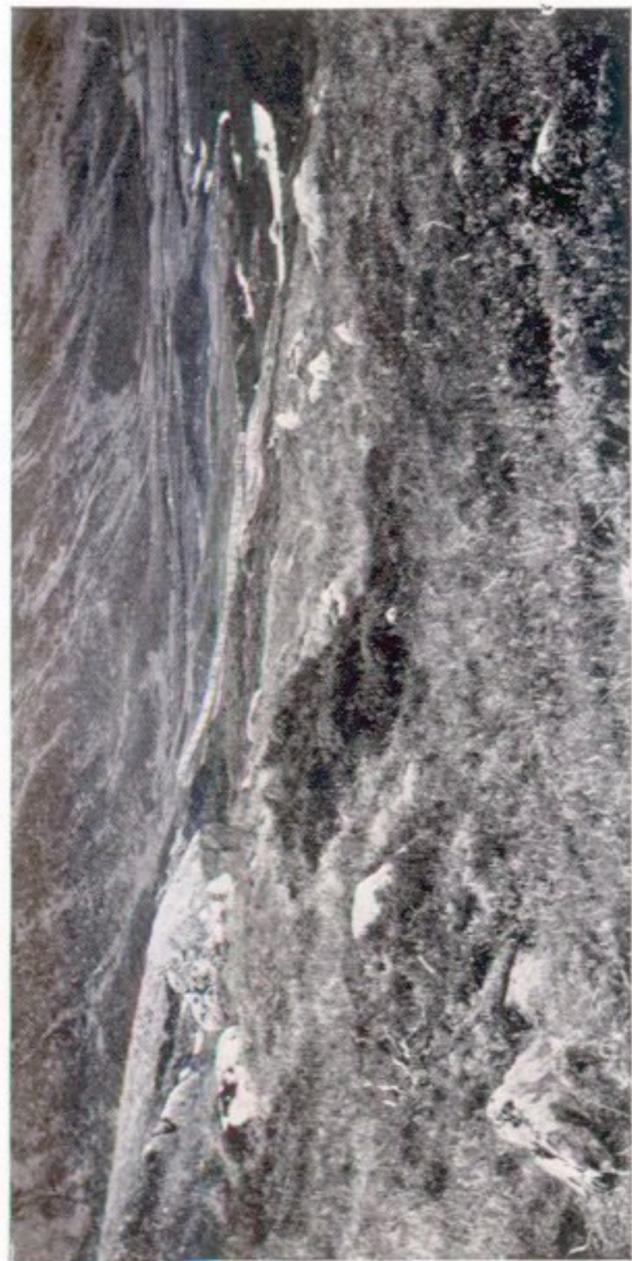
*Fraser's Bridge* (Pl. XIX, 3). This bridge is 100 ft. long over irregularly splayed approaches, and 15 ft. 4 in. wide over the parapets; the carriage-way is 12 ft. wide. It is borne on two segmental arches, the E. one spanning the river itself and the W. one an overflow channel in which the rock has been quarried away to give freer passage to flood-water. The E. arch springs 2 ft. above the water, spans 30 ft. 3 in., and rises 7 ft. 9 in. above the springing-line. The greatest height above the water is 15 ft., including a parapet 2 ft. 10 in. high. The pier between the arches has a cut-water 10 ft. 4 in wide on the upstream side. The masonry is large rubble very roughly coursed, and the voussoirs are longish and thin, contrasting with those at Allt a' Ghairbh-choire (q.v.). The work has been so heavily pointed that signs of disturbance or reconstruction are necessarily hidden.

The flat coping of the parapet bears the following initials and dates. On the downstream side from W. to E.: (i) J + C or G /1863, the letters and figures being respectively 2½ and 3½ in. high. (ii) W. C. Ms. 1862 (3½ in.), letters and date being separated by a mason's mark. (iii) Below the last, C. C. Ms (1½ in.). (iv) A S A (4 in.) followed by A S A (1½ in.). On the downstream side similarly: (v) An unfinished A (3½ in.). (vi) D M C (4½ in.). (vii) W R L (4 in.). (viii) P.C. (3 in.). The size and character of much of the lettering suggest professional work, particularly as a mason's mark forms part of No. ii; while the dates seem further to imply that the inscriptions were carved by men engaged on construction or reconstruction associated with the work on the road that was promoted by the Prince Consort (p. 229). Ms may stand for 'Mason'.

*Upper Cairnwell Burn* (Pl. XX, 2). This bridge spans the upper Cairnwell Burn immediately below the inflow of Allt a' Ghairbh-choire (148799), the crossing-place having rocky sides which make good natural abutments. It measures 40 ft. in length over short approaches, and 12 ft. in width over all; the roadway can thus hardly have exceeded 9 ft. 6 in. when the parapets, now vanished, were in place. The single segmental arch springs 3 ft. above the water and spans 20 ft., the present surface of the roadway being 12 ft. 6 in. above the water. The masonry consists of large roughly squared blocks, probably dressed boulders, brought to courses and pinned with fragments of broken stone; the voussoirs are likewise squarish, and thus contrast with the rather long, thin voussoirs often used in the eighteenth century. Much of whatever mortar was originally present seems to have been washed out.

*Allt a' Choire Dhirich* (Pl. XX, 1). This bridge carried the military road over Allt a' Choire Dhirich about 40 yds. above its confluence with Allt a' Choire Sheiridh (134752), but all that now remains of it is the arch-ring of its SE. face. The burn has broken out a second channel round the SW. end of the bridge, so that it now finishes on an island. The arch spans 14 ft. 6 in. and rises 4 ft. from its springing, which is at water level. The abutments have been built in large-sized masonry, and the one on the left bank measures 15 ft. in breadth.

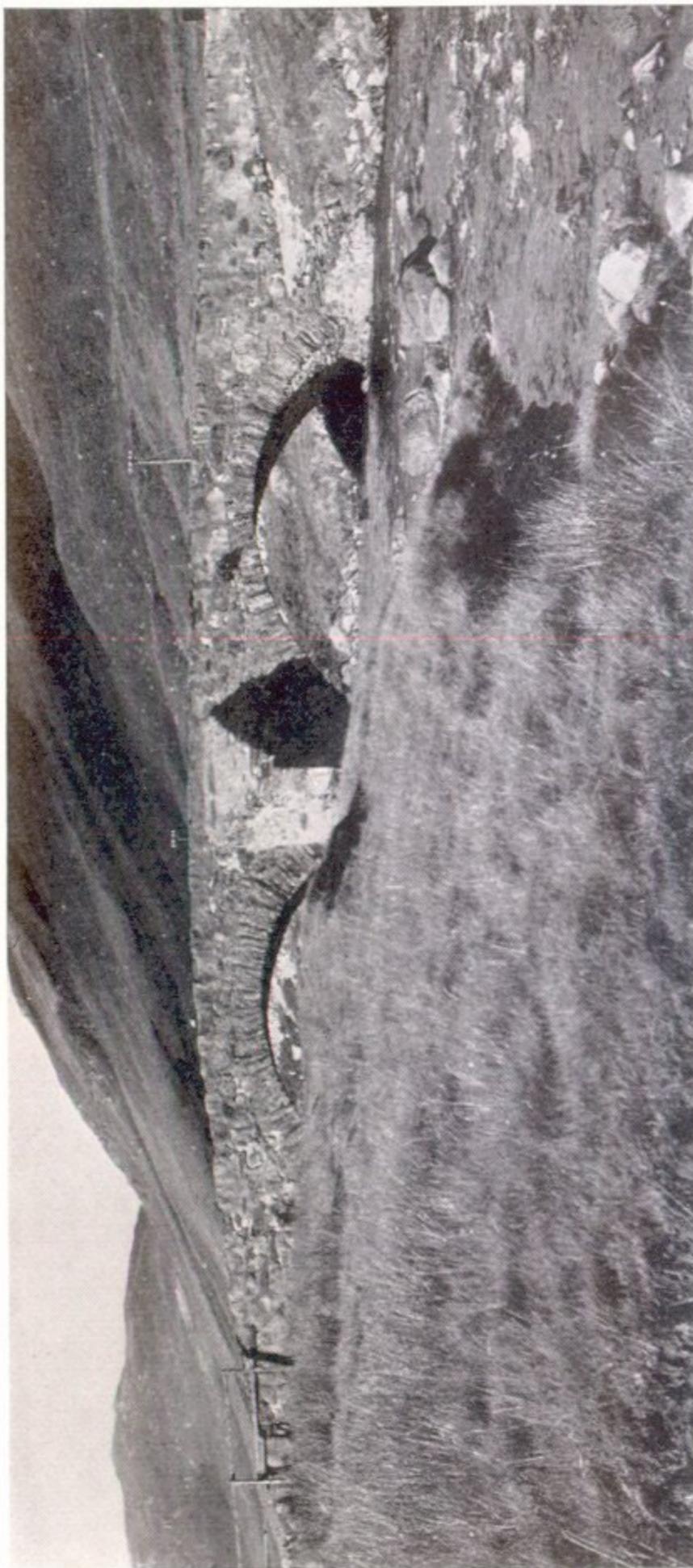
*The Spittal of Glen Shee* (Pl. XX, 3). This bridge carries A 93 over the Shee Water at the Spittal (108700), and is probably the 'one of 50 Foot Arch over the Water of Glen Shee' that is mentioned in the legend of the Board of Ordnance plan of 1750. It is built of large coursed rubble, the voussoirs being fairly long; it has been patched on the right bank, and has been tied together laterally with iron rods. Its length, including approaches, is 145 ft. measured over the central rise; its overall breadth is 15 ft., with a carriageway of 12 ft. The arch spans 51 ft., springs about 4 ft. above the water, and rises 13 ft. 4 in. above the springing line. The parapet, which is 3 ft. 6 in. high, stands 6 ft. above the crown of the arch.



1. The short cut beside Allt a' Choire Dhirich



2. The road north of Fraser's Bridge



3. Fraser's Bridge, from upstream



1. Fragment of bridge over Allt a' Choire Dhirich



2. Bridge over the upper Cairnwell Burn, from upstream



3. Spittal Bridge, from downstream