

III.

A NEW SURVEY OF KILDRUMMY CASTLE. BY W. DOUGLAS
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In my book upon *The Castle of Kildrummy: its Place in Scottish History and Architecture*, published in 1923, I have given a full historical account and architectural description of this noble building. Since that date, however, further excavation and the clearing of ivy from the ruins have revealed many new and important features; while my own continued intensive study of the castle, both on the structural and on the documentary side, and my increased knowledge and experience in the general subject of mediæval military engineering, have suggested not a few corrections, additions, and improvements on the account already published. Accordingly I welcome the opportunity, afforded by this paper,¹ of submitting a brief new survey of the ruins, along with an up-to-date and more accurate plan.

I. HISTORICAL INTRODUCTION.

The only specific account which we possess with regard to the foundation of Kildrummy Castle is a note by Sir Robert Gordon in his *Genealogical History of the Earldom of Sutherland*, written about 1630. After describing the life and actions of that great ecclesiastical statesman, Gilbert de Moravia, Bishop of Caithness from 1223-45—the founder of Dornoch Cathedral, and the last Scotsman to be canonised—Sir Robert proceeds to tell us that “this Sanct Gilbert wes appoynted be King Alexander the Second to be thesaurer for his majestie in the north of Scotland; and dureing the space he had this office he built the castle and fortresse of Kildrume in Marr, with seaven tours within the precinct of the said castle.”² Such a notice, in a chronicler writing four centuries after the event, must of course be treated with all due caution. Fortunately in the present case collateral circumstances exist which tend very strongly to support the accuracy of Sir Robert Gordon’s account. In the first place, we have to recollect that he had a peculiar interest in Kildrummy, and also special opportunities for research into its earlier history. Sir Robert was tutor to the son of John, twelfth Earl of Sutherland, and Earl John was married to a daughter of Alexander,

¹ It should be explained that this paper appears as a further instalment of a systematic survey of the early castles in Mar, which I am making under a research grant from the Carnegie Trust for the Universities of Scotland.

² *Genealogical History of the Earldom of Sutherland*, ed. 1813, p. 32.

fourth Lord Elphinstone, the owner of Kildrummy. The connection thus formed between the two families was a close one. At one time the Sutherland writs were removed from Dunrobin to Kildrummy for protection. Sir Robert Gordon is known to have visited the Donside castle, and to have had access to its charter chest.¹ An independent line of evidence is supplied by the Aberdeen Breviary (1509), which states that Bishop Gilbert was employed by King Alexander II., "in garrisoning and building castles and in repairing other edifices for the benefit of the monarch and the state."² We have also the entry in the Martyrology of Aberdeen, dating from about the same period, in which we are informed that Bishop Gilbert "built castles against the fury of the wild and barbarous tribes."³ The language of these two entries places the erection of what Cosmo Innes justly called "the noblest of northern castles,"⁴ against its proper political background as a detail in the measures leading up to one of the outstanding achievements of Alexander the Second's reign, the reduction of the great province of Moravia, the district between the Spey and the Dornoch Firth; an old Celtic palatinate which—strong in its allegiance to the House of Macbeth, and bitterly resentful of the Normanising tendencies of the rival House of Canmore—had for two centuries fiercely resisted the process of compulsory incorporation within the expanding realm of Scotland. Kildrummy Castle is located just half-way between the two important ancient centres of Brechin and Elgin, and forms one of a chain of strongholds, royal and baronial, which controlled the great route northwards from Strathmore over the *Monadh* or Mounth, and so through Mar and Strathbogie into the disaffected area.⁵ A map (fig. 1) ascribed to the second quarter of

¹ See *Genealogical History of the Earldom of Sutherland*, p. 296; also Sir W. Fraser, *The Sutherland Book*, vol. i. p. xl; vol. iii. p. 194; vol. ii. pp. 147, 349; and his *The Lords Elphinstone of Elphinstone*, vol. i. pp. 141-4.

² *In temporalibus et spiritalibus ipsum pro singulis regum in boreali Scocie parte agendis et castrorum custodiendis edificandis et aliis edificiis pro utilitate regis et rei publice reparandis prefecerunt*, see Bishop A. P. Forbes, *Kalendar of Scottish Saints*, p. 355.

³ *Contra rabiem indomitaram et silvestrium gentium castra edificans—ibid.*, p. 130.

⁴ *Sketches of Early Scotch History*, footnote, p. 79.

⁵ See my *Castle of Kildrummy*, pp. 3, 49-51; also my *Huntly Castle*, 2nd ed., pp. 3-5; and my paper on "The Royal Castle of Kindrochit in Mar" in *Proceedings*, vol. lvii. pp. 82-5. It is perfectly clear that the significance of such very powerful castles as Kindrochit and Kildrummy, near the heads of river basins amid the mountains of Western Aberdeenshire, is to be found not in the east-and-west or blind-alley strategy of these narrowing valleys, but rather in the north-and-south or transversal strategy of the trunk roads leading across the Mounth towards Moravia. On an east-to-west strategy the position of these castles is meaningless; they are at "the back end of nowhere." We are too apt to think of Mar to-day in terms of the modern rail and road communications ascending the Dee and the Don; whereas the mediæval mind would regard the whole problem transversely. In ancient times the cross-country routes, over the Mounth and northwards, were of far greater importance than the roads ascending the valleys.

Mr W. Mackay Mackenzie (*The Mediæval Castle in Scotland*, pp. 20-1), albeit sceptical about what he calls the assumption "that in the planting of these fortified structures a strategic

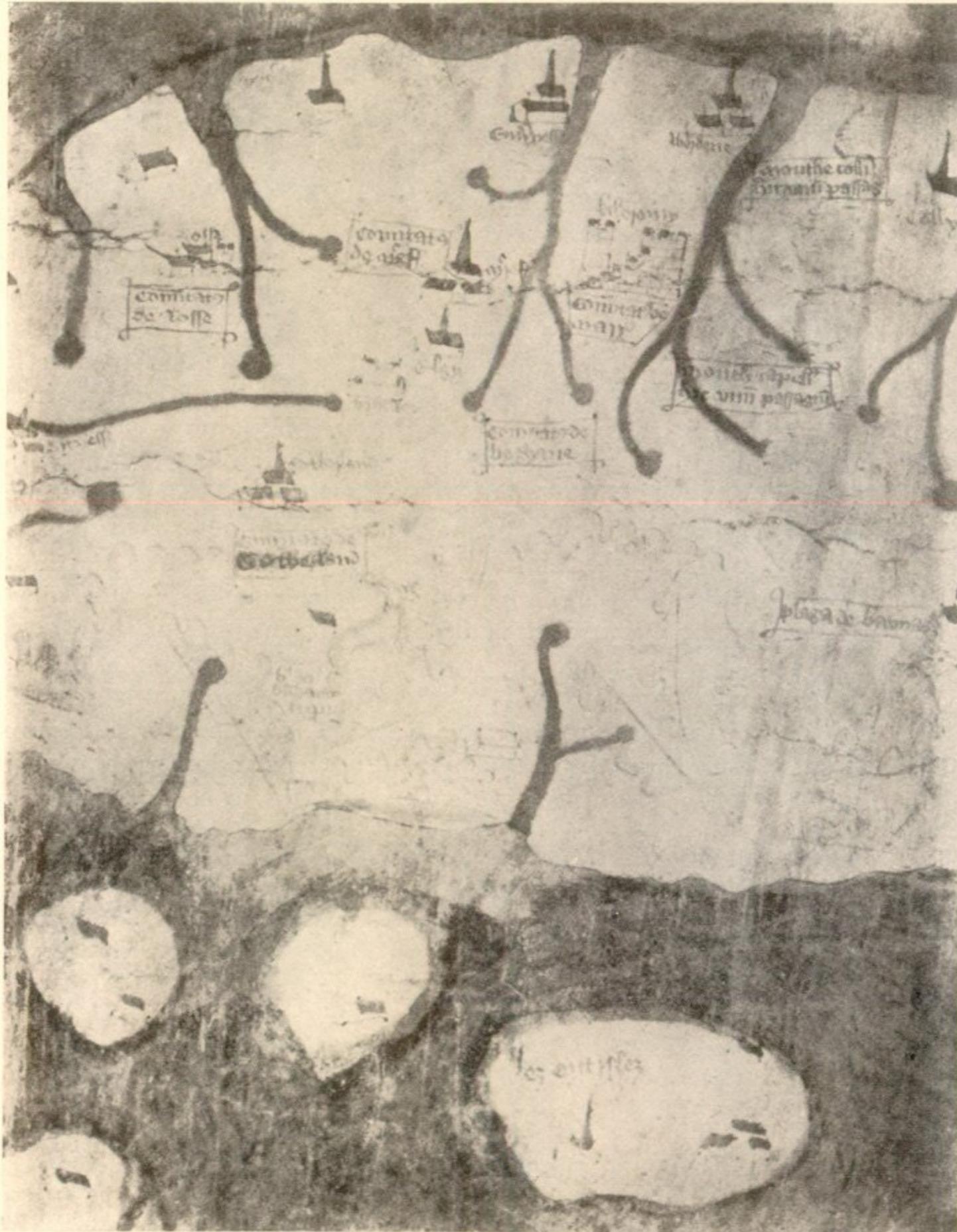


Fig. 1. Portion of an Early Fourteenth-Century Map of Scotland, showing Kildrummy Castle in its relation to the Mounth Passes.

the fourteenth century brings the castle into intimate relationship with the important Mounth passes. It is depicted as a great building of hewn stone, towered and battlemented, and south of it is marked the Capel Mounth Pass, with the significant words *hic unum passagium*.¹

In accordance with normal mediæval procedure, the castle thus founded by a royal minister, with a national end in view, would be entrusted to the hereditary wardenship of the local feudal landholders, the Celtic Mormæors of Mar, who had thrown their lot in with the new *régime*, and under their novel title of Earls were active in organising parishes, as at Tarland and Migvie, founding and endowing monastic houses, such as Monymusk, and throwing up earthwork castles like the Peel of Fichlie and the Doune of Invernochty—all these being the outward and visible signs of the Norman penetration.² A phenomenon very familiar to students of this process, alike in Scotland and in England, is the constant juxtaposition of parish church and castle, as representing respectively the ecclesiastical and civil *nuclei* of the early parochial organisation, in which the parish was often co-extensive with the manor, and the priest was a younger son of the lord. Examples of this association—so full of import for the earlier topographical history of our country—are frequent in Aberdeenshire, as at Lumphanan, Midmar, Inverurie, Auchindoir, Migvie, Coull, and elsewhere. Accordingly it will at the first sight seem highly remarkable that the important case of Kildrummy appears directly to violate this so constant rule. Here (see sketch-map, fig. 2) the ruined mediæval parish church still picturesquely crowns its burial mount, and to the southward stretched the ancient

principle was observed," is forced to admit the significance of "the line of positions on the great mediæval route through Mar." But in the case of the royal castles with their associated burghs, he seeks to find the explanation not so much in considerations of strategy as in the idea that there were older centres of population at these points, and that the castles were raised "with an eye to dominating the local population and not the highway." Yet at pp. 24-5, he himself points out that the burghs did not exist before the castles, but were founded contemporaneously with them. Surely this suggests that the military position of the castle was the first consideration. And after all Kildrummy, the greatest of all the chain of castles under review, not merely was never associated with a royal burgh, but also (as we shall see) was deliberately planted on a site apart from the earlier local centre of population.

¹ I am privileged to reproduce the relevant portion of this map (M. S. Gough, Gen. Top. 16) through the courtesy of Bodley's Librarian, who also kindly had the photograph taken at my request. The date assigned in the text is that favoured by Dr Craster, Keeper of Western Manuscripts in the Bodleian Library; and there are topographical features in the map which appear to me clearly to point to such a date being approximately correct. It is interesting to note that Kildrummy is the only castle shown in this graphic manner and on so large a scale, all the other castles being indicated merely by conventional *tourelles* of small size. This fact, together with the precise indication of the two Mounth Passes, suggests strongly that the cartographer was familiar with the castle, and wished to accord it special distinction on his map: possibly as a favourite residence of David II. and his aunt, the Lady Christian, sister of King Robert Bruce.

The whole map is reproduced in *National MSS. of Scotland*, Part iii. No. ii.

² See *The Castle of Kildrummy*, pp. 53-67.

burgh, of which ample documentary evidence exists from the fourteenth century onwards, while the now deserted fields still bear such significant names as Boroughmuir, Milltown, Malt Croft, Tolbooth, Schoolhill, and Gallowshillock.¹ But from this ancient centre of burghal life the castle stands strangely aloof, a good mile to the south-westward. Yet on a

closer examination what at first sight seems to be an exception to the rule turns out to be a most strikingly suggestive case in point.

In the writs dealing with properties in the vanished burgh, reference occurs frequently to a place known as the "castle hill" (*mons castri*), which was on the east side of the burghal tenements. Thus in 1447, we have a piece of land lying within the town of Kildrymme on the east side of the said town between the castle hill and the land of Thomas Donaldson on the north side, and the land of Thomas Rogerson on the south side.² Again, a royal charter of 1608, confirming their lands to the Elphinstones, refers to "the fortalice or manor place,"³ at the burgh of Kildrummy, in terms quite distinct from the castle, which is separately mentioned. In 1636 a similar grant of the burghal

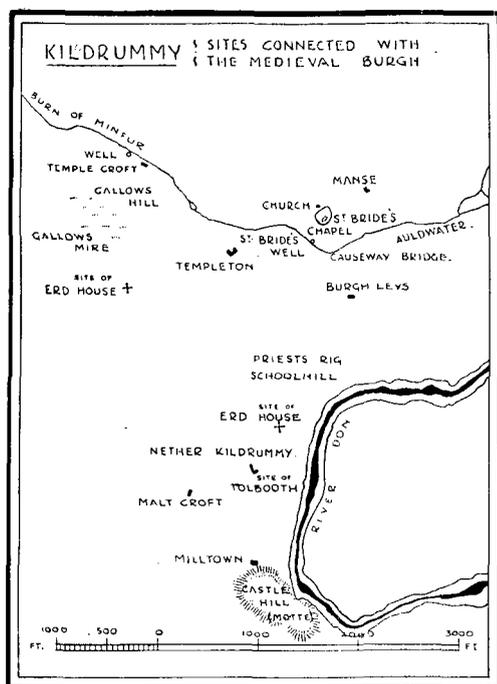


Fig. 2. Kildrummy: Sites connected with the mediæval Burgh.

lands includes the "ruined tower."⁴ Now, as is well known, the phrase *mons castri* in old charters is a regular technical term for the *motte* or earthen mount of an abandoned early Norman castle. And the site of this early castle at Kildrummy may still be identified. About half a mile south of the church, and on the farm of Milltown of Kildrummy, close by the riverside, is a well-marked, flat-topped eminence named Gallow-

¹ See *The Castle of Kildrummy*, pp. 279-86.

² *Antiquities of the Shires of Aberdeen and Banff*, vol. iv. pp. 734-5.

³ "*Integram villam et burgum in baronia de Kildrymmie, cum firmis burgalibus, annuis redditibus, terris et rudis ejusdem, cum rudis burgalibus et lie Burrowmyir, cum lie Burrowhauch, Auchinvany et Gallowshillok, cum fortalicio, manerie loco,*" etc.—"*Registrum Magni Sigilli Regum Scotorum*," 1593-1608, No. 2125. Cf. also No. 51.

⁴ "*Cum turre ruinosa*"—*ibid.*, 1634-51, No. 484.

hillock on the Ordnance Survey Map. This name, however, is quite unauthenticated: the real Gallowshillock is north of the church, on the farm of Templeton, and is correctly so named on the map. The site at Milltown is invariably known to natives of the parish as the Castlehill, and is without doubt the *mons castris* of the old writs. Long-continued ploughing has worn down its outlines and smoothed away all traces of a bank or ditch; but as viewed from the farm of Westside, across the Don, it still has every appearance of a well-preserved motte. From this point of vantage, also, it will be realised how completely Norman was the lay-out of the ancient burgh. The thatched cabins with their tofts straggled along the summit of a hogsback ridge, having the Don on the east side and a marshy bottom to the westward. At the south end of the burgh rose the timbered mount of the early Norman castle, and at the opposite end was the parish church, on the north side of its circular mounded burial-ground, perched upon the summit of one of the "kaims" of fluviatile detritus which are so marked a local feature.¹ All this is thoroughly mediæval in arrangement; for example, it is exactly paralleled at Coull,² where also we find the church on the north side of a churchyard which itself is at the north end of a level area stretching along the Tarland Burn, and terminated to the south by the castle, the gate of which opens in a northerly direction. The ancient road from Aboyne passes the castle on the east and forms the eastern boundary of the churchyard. No doubt the area between church and castle was occupied by the mediæval village.

It would thus appear that in the earlier stages of the infeudation of Mar—probably in the twelfth century—one of the Mormæors had thrown up a timbered earthen castle to serve as the civil nucleus of a parish, the church of which (it would seem) occupies a much older site of Christian worship, and indeed of human habitation.³ Between the church and the castle grew up a village community, which in the fourteenth century was organised as a fully articulated burgh of barony. A new departure was taken with the advent of Bishop Gilbert de Moravia as the royal lieutenant. No longer to serve local administrative ends, but as an instrument of larger national policies, a stone castle on a great scale was planned, for which a more suitable site was found, endowed with plenty of elbow-room and strong in its natural defences, on the well-defined promontory thrust out from the hills into the river valley a mile to the west. The older castle was

¹ For these kaims see Dr A. Bremner, *Physical Geography of the Don Basin*, p. 58.

² See sketch-map in *Proceedings*, vol. lviii, p. 47.

³ *The Castle of Kildrummy*, p. 279. The church is under the invocation of St Bride.

then abandoned and fell into decay; but the parish church kept the village beside it on the ancient stance. And thus we have worked out a very pretty and interesting study in the evolution of a parochial topography in which local and national purposes have divergently played their part.

The Castle of Kildrummy, as vouched by contemporary record, makes its *début* upon the stage of history on Tuesday, 31st July 1296, on which day it received within its gates the English monarch, Edward I., on his return march from Elgin, after the downfall of Balliol. Edward remained at the castle over the 1st of August, and thereafter continued his progress by Kincardine O'Neil and the Cairna-Mounth Pass to Brechin.¹ In 1303, during his second great invasion of the north, Edward again reached Elgin, and on his return journey paused for a few days (4th-9th October) at Kildrummy.² In 1305, Donald, Earl of Mar, was a minor in ward under the care of his uncle, Robert Bruce, Earl of Carrick, who thus exercised control over his estates and the Castle of Kildrummy. Herein lies the explanation of a significant paragraph in the famous Ordinance for the Settlement of the Kingdom of Scotland, promulgated by Edward I. in September 1305, whereby the Earl of Carrick is directed "to place the Castle of Kyndromyn in the keeping of a man for whom he shall answer."³ The sequel is well known. After his defeat at Methven (26th June 1306), Bruce sent his wife and sister, under the charge of his younger brother Nigel, to Kildrummy for safety. On the near approach of an English army, led by Prince Edward of Carnarvon, the Queen and her ladies fled north, while Nigel gallantly and successfully defended the castle until, sometime before 13th September, he was forced to surrender through the treachery of the blacksmith Osborn, who set fire to the corn supply stored in the great hall.⁴ Thereafter the English "tumlit doune" "all a quarter" of the castle; that is, they threw down one side of its *enceinte* in order to render it useless in a military sense. We shall see how evidence of this partial demolition, and the subsequent rebuilding, is still clearly visible on the west side of the enclosure. The restoration would doubtless take place when the Earl of Mar, who had been captured at Methven, returned to Scotland in the general exchange of prisoners after Bannockburn (1314). In 1336,

¹ See *Ragman's Roll* (Bannatyne Club), pp. 110-1, 179, 183; J. Bain, *Calendar of Documents relating to Scotland*, vol. ii. Nos. 800, 822-3; Hume Brown, *Early Travellers in Scotland*, p. 5.

² *Rotuli Scotie*, vol. i. p. 53; Bain's *Calendar*, vol. ii. Nos. 1397, 1399, 1400; *Calendar of Patent Rolls*, 1301-7, p. 161.

³ *Rotuli Parliamentorum*, vol. i. p. 268.

⁴ The whole story of this famous siege is finely described by Barbour in his *Brus* (ed. W. M. Mackenzie, pp. 58-61). See my *Castle of Kildrummy*, pp. 187-92.

the restored castle stood another siege, this time an unsuccessful one, when Bruce's heroic sister, the Lady Christian, beat off a determined assault by the Earl of Atholl, acting on behalf of Edward Balliol and the English interest.

The later fortunes of the castle do not concern us here, except in so far as they shed a fitful and scanty light upon its structural history.¹ It stood sieges again in 1361, in 1404, in 1442, and in 1530, on which last occasion it is recorded to have been burnt.² On 26th February 1654, the castle opened its unwilling gates to Colonel Morgan, acting on behalf of Cromwell. In 1689 or 1690 it was burned by the Highlanders of Dundee's army, and was on that occasion described as "a great castle in the mouth of the Highlands, called the castle of Killdrumie, surrounded with great walls wherein their was much building, and being for the most part totally burnt and destroyed, the reparatiene of it cannot be under nyn hundred pounds sterline."³ It was sufficiently patched up, however, to form the headquarters from which the Earl of Mar launched the ill-starred "Fifteen,"⁴ which involved his ancient line in ruin, and sealed the fate of his ancestral castle. By the victorious Hanoverians it was plundered and dismantled,⁵ and has since remained a roofless ruin, though some parts are doubtfully said to have been occupied as late as 1733.⁶

Throughout this long and stormy history, documentary evidence bearing on the structural history of the fabric is neither bountiful nor precise. Between 1435 and 1508, however, the castle was in the hands of the Crown, and accordingly we find entries in the *Exchequer Rolls* of payments to the garrison and expenditure upon the buildings. The first of these entries appears under the years 1437-8, and is sufficiently detailed to warrant our identifying the work then executed with the barbican added in front of the main entrance.⁷ At the same time the chapel was re-roofed with tiles and a stone fireplace was repaired.

¹ A sufficient historical sketch, which might easily be extended, will be found in my *Castle of Kildrummy*.

² R. Pitcairn, *Criminal Trials in Scotland*, vol. i. part i. p. 246.

³ Sir W. Fraser, *The Melvilles, Earls of Melville, and the Leslies, Earls of Leven*, vol. ii. p. 168.

⁴ See p. 2 of *An Impartial Account of the Rebellion in the Year 1715, contain'd in a Letter from a Gentleman in Scotland to his Friend in New England*, and published as an appendix to *The History of Scotland*, by J. W., M.D. (Dr James Wallace), Dublin, 1724. (Macbean Jacobite Collection, Aberdeen University Library. This is apparently the third edition, the previous two having appeared at Dublin in 1720 and 1722. For the author see *Dict. Nat. Biog.*)

⁵ "The Earl of Mar has got a scar
These forty years he'll be the waur,
They've broken his ha's wi open force
And ta'en five hundred highland horse."

—A. LAING, *Donean Tourist*, p. 451.

⁶ *Castle of Kildrummy*, pp. 253-7.

⁷ *Ibid.*, pp. 116, 214-6. See *Exchequer Rolls*, vol. v. pp. 57-9.

The total expense seems to be £31, 13s., but includes sundry small items not chargeable against the fabric. In 1451, an expenditure of £13, 6s. 8d. was incurred upon the castle.¹ In 1464, we have the roofing of two towers, the "burges tour" and the "maldis tour."² In 1468 and 1469, £100 is spent each year upon "the construction and repair of the Castle of Kildrummy";³ and the series of payments closes in 1471 with £80 charged against "the fabric and repair of the castle."⁴ As Mr Mackenzie rightly comments, these sums in the aggregate "must represent a fair amount of construction."⁵ At the same time it should be observed that comparisons with other similar work are extremely unreliable: if the building of the gatehouse tower at Rothsay Castle cost £191, 7s., that of David's Tower at Edinburgh Castle, no greater undertaking, cost over £400. The difficulty is that there is little work at Kildrummy Castle to-day that can confidently be assigned to the fifteenth century; but we must remember that the "much building" within the courtyard recorded in 1689 has now very largely perished.⁶

The lofty structure with a corbie-stepped gable, abutting internally on the north curtain to the west of the hall, is assigned by old writers to Alexander, first Lord Elphinstone, who acquired Kildrummy in 1508, and fell at Flodden five years later.⁷ It has every appearance of belonging to this date, but embodies the remnants of an older structure. Doubtless by including this building, which is not a tower in the strict sense of the word, Sir Robert Gordon was able to count his "seven towers within the precinct."

History records three occasions (1306, 1530, and 1689) on which Kildrummy Castle suffered by fire. It is not surprising, therefore, to find that the masonry of the existing ruins shows very marked traces of burning. Such traces are particularly evident in the gatehouse and the adjoining curtain walls. That these signs of scorching are not wholly due to the latest conflagration (in 1689) is shown by the fact that some of the most seriously affected stones are those forming part of the original internal wall-face of the west gatehouse tower, now exposed by the falling away of an inserted vault, which (as we shall see) dates probably from the fifteenth century. If this dating be accepted,

¹ *Exchequer Rolls*, p. 463.

² *Ibid.*, vol. vii. p. 277.

³ *Ibid.*, pp. 559, 650.

⁴ *Ibid.*, vol. viii. p. 79.

⁵ *The Mediæval Castle in Scotland*, p. 60.

⁶ Cf. W. D. Peckham on "The Architectural History of Amberley Castle" in *Sussex Archaeological Collections*, vol. lxii. pp. 34-5. He points out that Bishop Sherburne (1508-36) spent much money in building, but there is little evidence of his operations at Amberley Castle. "His work was rather that of decorating and adapting to the standard of his time than rebuilding, work which may make a vast difference to the comfort of the house but very little to its historical ground plan."

⁷ *Castle of Kildrummy*, pp. 99, 228.

we have here probably traces of the first conflagration, when the castle was set ablaze by Osborn the Smith in 1306. It may be recalled that Barbour describes the fire as having been particularly intense at this part of the castle, so that although the gate was destroyed the assailants were unable to force an entry.

II. DESCRIPTION OF THE REMAINS.

The site of the castle¹ is a bold promontory projecting upon two sides, north and west, into a deep ravine, known as Back Den. The flanks of the ravine have a slope of nowhere less than 45°; and at its bottom, about 60 feet below the castle, briskly flows a small burn. The extreme point of the promontory, on which the donjon is placed, forms the highest part of the castle area, and is a rock outcrop benched to form a platform for the tower. Here the slopes are very steep and regular, and may perhaps have been scarped. On the other sides of the castle, east and south, the ground falls in a broad and gentle descent towards the picturesque Den of Kildrummy, about 200 yards away. On these sides, therefore, a ditch (fig. 3) about 85 feet in breadth, and still from 14 to 20 feet in depth, was drawn round the enclosure, meeting Back Den on either side. The middle part of this ditch, on the south side opposite the gatehouse, appears to have been filled up, either at a late period in the occupation of the castle, or else in order to facilitate carting away material from its ruins. At its west end the ditch works out upon the slope of Back Den, and has, therefore, never contained water; but at the north end it seems to have been stopped, with a retaining mound or *batardeau* between it and the Den, as at the very similarly situated castle of Kidwelly in Carmarthenshire (fig. 29). This part of the ditch, however, has been considerably obscured by old quarrying, and by dumping of rubbish in more recent times. On the east side the ditch averages about 80 feet distant from the castle, but on the south it has been indrawn more closely. This ditch has some puzzling features, and in my former account² I suggested that it may possibly have been a prehistoric work utilised and modified by the mediæval engineer. While there is no inherent impossibility in such an idea, further consideration has convinced me that there is not sufficient evidence. At all events the section now shows the usual boldly scooped-out U-profile of mediæval ditches. Its lack of complete harmony in alignment with the curtain walls, and its great and unequal distance out from them, may perhaps be explained on the supposition that the ditch was dug before the castle

¹ See general plan in my *Castle of Kildrummy*, p. 75.

² *Ibid.*, pp. 139-50.

was built. Such a procedure would scarcely be the most convenient, but might be adopted if there was an immediate need to secure a defensive enclosure amid a hostile neighbourhood. A similar order of construction, doubtless for the latter reason, was employed at the Welsh Edwardian Castle of Harlech.¹

While the general disposition of the site is well enough suited for a large mount-and-bailey castle, there is no evidence whatsoever that



[Photo W. Norrie.]

Fig. 3. Kildrumny Castle: Warden's Tower and north end of Ditch.

any such has ever existed. The site of the donjon has certainly never been mounded, and there is no vestige of a bank within the ditch. All the evidence accords with the view that the stone castle now remaining was the earliest fortress to be erected on the site. We have already seen that there was a *motte* near the parish church, and this earlier stronghold was doubtless abandoned after the stone castle was erected on a different site. Had there been a twelfth-century earthwork castle on the ground now occupied by the stone building, we should have expected

¹ See paper on "Harlech Castle" by C. R. Peers in *Transactions of the Honourable Society of Cymmrodorion*, session 1921-22, pp. 64-5.

the parish church and the mediæval burgh to be in its immediate neighbourhood.

To a thirteenth-century engineer the problem of fortifying the site as above described presented an obvious and normal solution. On the extreme point of the promontory he would place his donjon, while round the enclosure defined by the slopes of Back Den and the ditch he would carry his curtain walls, flanked by projecting towers, and enclosing the domestic buildings. So far as convenience of plan and the configuration of the ground are concerned, the entrance might equally well have been contrived on the east or on the south fronts: the desire to include in the domestic apartments a chapel, large in size and correctly oriented, led to the gate being placed on the south. The natural place for the hall and principal domestic buildings would be against the long north curtain, with a sunward outlook, at the opposite side from the gate, and in convenient neighbourhood to the donjon or *dernier ressort*. Thus far the castle conforms to the normal dispositions of a thirteenth-century fortress: but in various points of detail it shows skilful adaptation to special circumstances, revealing that the engineer was no mere *esprit routinier*, but a man of vision and pliancy. The building being situated on fairly level ground, with plenty of space, the engineer was thus unhampered by any special topographical difficulties, and was able therefore to develop his design with entire freedom. Accordingly the plan reveals itself as a very logical and symmetrical one, and illustrates most strikingly the ideal at which the thirteenth-century military engineer was aiming.

The castle, then (see plan at end, fig. 31), consists of a great heptagonal enclosure, four of whose angles are capped by powerful, round, flanking towers, while a fifth is occupied by a highly developed gatehouse. The remaining two angles, in the south-west and south-east curtains, are of low salient, and, not interrupting the command of the gatehouse and the two adjoining mural towers, are thus not provided with any salient defence. The courtyard area of the castle measures about 182 feet from east to west¹ by 147 feet from north to south.² The curtain walls are mostly about 8 feet 6 inches thick, and where part of the original parapet remains, on the east side south of the chapel, show a height of about 35 feet. Here the parapet is a continuous one, without embrasures, and carried up flush from the wall; it has an unfinished aspect, and in time of siege would no doubt have been provided with

¹ Measured from the east curtain at the south re-entrant of the chapel to the west curtain opposite.

² Measured from the middle point of the north curtain to the rear-wall of the gatehouse opposite.

a timber hoarding. The curtain wall, says Barbour, in describing the great siege of 1306,

“ . . . at that tym wes batallit all
Within, rycht as it wes with-out.”

The Snow Tower at the north-west angle formed the donjon of the castle. It alone is completely circular, alike without and within the *enceinte*, from which it has a salient of three-fifths towards the west. This has been a noble tower, measuring 49 feet 9 inches in diameter above the battered base, or 53 feet below it, with walls 12 feet thick. Unfortunately it is now an utter ruin, only the basement in part remaining. It forms a circular chamber 26 feet in diameter, in which is a well, 6 feet square, worked roughly in the solid rock. On the south and west sides of the tower may still be seen a considerable portion of the finely domed ashlar vault in the basement. Descriptions still extant of the tower in the eighteenth century show that it was five¹ storeys high, each storey being dome-vaulted, and in the apex of each vault was left open a ring or eye for hoisting water by a bucket and windlass from the well to every floor and to the parapet. On the first floor a loop-holed mural gallery ran round the tower. At the re-entrant angle between the tower and the inner face of the west curtain wall there has been a rone-pipe—indicated quite clearly by the marks which still remain, and by the oaken pegs, to receive its fastenings, still firmly dowelled into the ashlar masonry.

In my former account I have already drawn attention to the special characteristics and affinities of the Snow Tower. Its great development, compared to the other towers, has a very French look, and its internal arrangement, vaulted on each floor with an opening in the vault, is distinctively French, as is also the mural gallery.² In all these respects the Snow Tower must have strongly recalled the great donjon at Coucy; and I see no reason to alter my view that the resemblance may well be due to the marriage in 1239 between Alexander II. and Marie de Coucy, and the subsequent long and intimate connection between the Coucy family and Scotland.³

¹ Some accounts give the tower seven storeys, the latter figure being doubtless due to the inclusion of two intermediate wooden floors that are known to have existed.

² As in the donjons at Coucy, Aigues Mortes (Tour de Constance) and Chateaudun. There is an English parallel at Hawarden. Mr Mackenzie (*The Medieval Castle in Scotland*, p. 56), objecting to this suggested relationship between Coucy and Kildrummy, says that such vaulting on all storeys, with *oubliettes* in the vaults, is “a late rather than an early feature,” and instances Coxton Tower, 1641. But such a parallel between a seventeenth-century tower-house and the donjon of an early castle like Kildrummy is quite beside the mark: the point in regard to the vaulting and the *oubliettes* in the Snow Tower is that these features do not occur elsewhere in Scotland in the thirteenth century.

³ See *The Castle of Kildrummy*, pp. 104–10, 152–3.

Next in importance to the donjon comes the Warden's Tower at the north-east corner, the best preserved tower in the castle. This fine specimen of mediæval military construction (fig. 4) measures 37 feet 6 inches in diameter above the battered plinth, with walls 8 feet 7 inches thick, and still remains to a height of nearly 60 feet. It has a three-quarter salient on both fronts. The tower contains four storeys. Its basement was a prison, and is entered by a passage in the gorge wall, well secured by inner and outer doors closing against the interior. In the prison is a garderobe. The manner in which this basement was ceiled is not quite clear. Round the wall (fig. 6) runs a continuous corbel table which at first sight seems to have carried a timber floor. But a prison not vaulted over in stone would be an extremely unusual thing; and it is noteworthy that



[Photo C. R. Marshall.]

Fig. 4. Kildrummy Castle: view of Warden's Tower from the south-east.



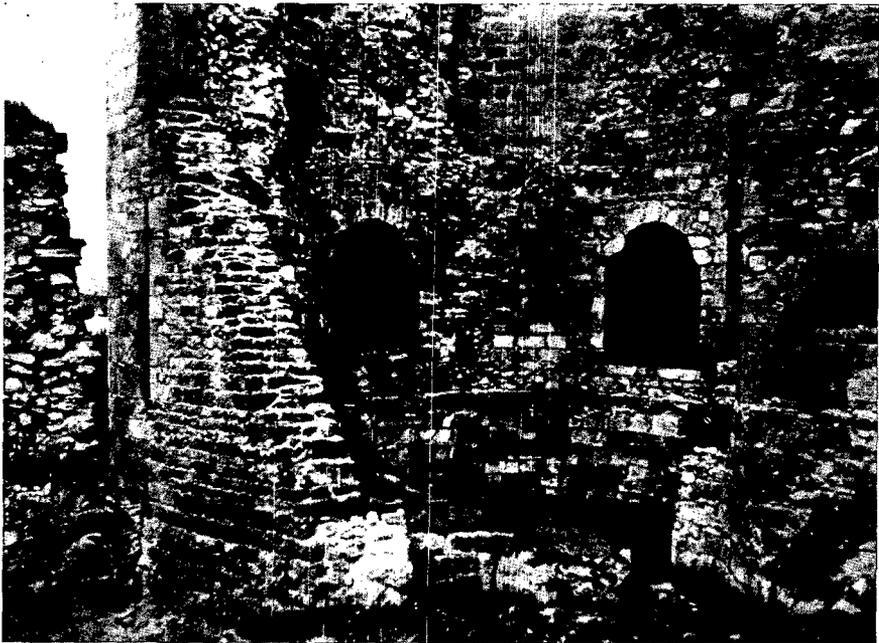
[Photo C. R. Marshall.]

Fig. 5. Kildrummy Castle: Window in Warden's Tower.

above the corbel table there is a band of rough hearting all round the tower, which rather looks as if there had been a low-pitched "mushroom" vault resting on a centre pier. The upper three storeys were reached by a newel stair in the gorge wall, but opening separately from the prison entry. On the first floor are four large mural chambers narrowing outwardly to loopholes 7 feet long and $4\frac{1}{2}$ inches broad, slightly fantailed below, but devoid of plunge. This room was probably a store. The upper two floors provided living rooms, and each was furnished with a fireplace. Originally these rooms were probably equipped with mural chambers similar to those below, narrowing outwardly to loopholes, or at best, to small windows; but these would seem to have subsequently been replaced by large windows of pronounced Edwardian type (fig. 5), consisting of two lancets on a raked base and framed with a cusp-corbelled lintel.¹ These

¹ The question as to whether these windows are original or insertions is a doubtful one, there being features in the bonding which tell both for and against this view. I have long regarded

windows at once recall the type of opening so constantly found in Edward the First's Castles in North Wales. The rough masses of hearting (fig. 6) which project from the wall-face on the second-floor level have very much the disposition and appearance of the cores of a fallen groined vault. A small portion of the parapet walk, reached by two steps up from the roof of the tower, may be seen on the east side, and three of the plain dished and plunged runnels still remain; but the



[Photo W. Norrie.]

Fig. 6. Kildrummy Castle: Interior of Warden's Tower. (The arches over the mural chambers are modern: originally there were lintels. The loophole seen on the left, with the buttress-like wall adjoining, is a restoration.)

parapet itself, which rose flush from the wall-head, has almost entirely perished.

The special security enjoyed by the Warden's Tower is shown by the fact that there is no direct communication between it and the castle courtyard. It must have been reached only from the hall by the passage between the chapel and the kitchen. On the other hand, the

them as insertions, but am induced here to state the matter as an open question after a careful consideration on the spot with Mr J. S. Richardson, who favours the view that they are contemporary with the tower.

occupant of the tower possessed at all times an easy and private means of egress by the postern adjoining in the north curtain.

The Brux and Maule Towers at the south-east and south-west angles are twins in their general arrangements. Each is 30 feet in diameter, with semicircular salient to the field, but projecting as a square building towards the courtyard, so that the interiors form oblong rooms with trilateral outer ends. Only the lower storey of each tower is intact, and was unvaulted; the upper storeys have had mural recesses with loops of an exactly similar pattern to those in the Warden's Tower. Owing to their lack of plunge, these loopholes cannot command the base of the wall—a fact which suggests that the summits of all the towers were provided with hoardings for this purpose. In each tower the basement is entered by a door, not specially defended, in the square gorge wall; the upper floors were reached by mural stairs in the curtain adjoining, convenient to serve both the tower and the rampart walk. There was no direct communication between the basement and the first floor.

All four towers as thus described have bases of identical profile (figs. 7 and 20, No. 5), the wall rising almost vertically through some six or seven courses, then setting back sharply from a bevelled moulding for three courses, after which the tower is continued with unbroken verticality to the summit.

Since my previous account was published, further excavation has disclosed the complete ground-plan of the gatehouse, so far as it is preserved. This has been a large and notable structure, consisting of an oblong block, 68 feet 6 inches in breadth, passing out frontally into two great round half-engaged towers, 33 feet in basal diameter, between which lies the trance, 8 feet in width. The total over-all depth of the gatehouse is 61 feet. The tower walls are 9 feet 6 inches thick, and show a different profile from the others in the castle (fig. 12), steeply battering directly from the ground to a height of six courses. As originally built, the basement of each tower contained an oblong, unvaulted chamber, with a semicircular bow towards the field. Behind each, in the rearward portion of the gatehouse, is a lodge of greater breadth, obtained by thinning off the walls of the trance. In the west lodge is a remarkable fireplace (fig. 8), 7 feet 8½ inches wide, with heavily chamfered jambs 4 feet 9 inches high, curved out below and also above to carry the hood,



[Photo G. P. H. Watson.

Fig. 7. Kildrummy Castle: south side of plinth, Maule Tower.

which has perished. The segmental backing of the fireplace appears to be an insertion. This fireplace is of unmistakably Edwardian type, and can be assigned without hesitation to about the year 1300.¹ The gatehouse bears evidence of successive alterations. At first the partition walls between the rearward lodges and the tower basements seem to have been of wood, with a central stone pier (having a splayed plinth) to carry the floor above; but at a later date stone gorge walls and doors were built. In the gorge wall in the east tower a stone with fluted piscina bowl has been re-used. The basement of this tower, owing to the generally eastward slope of the ground, is at a lower level than that of



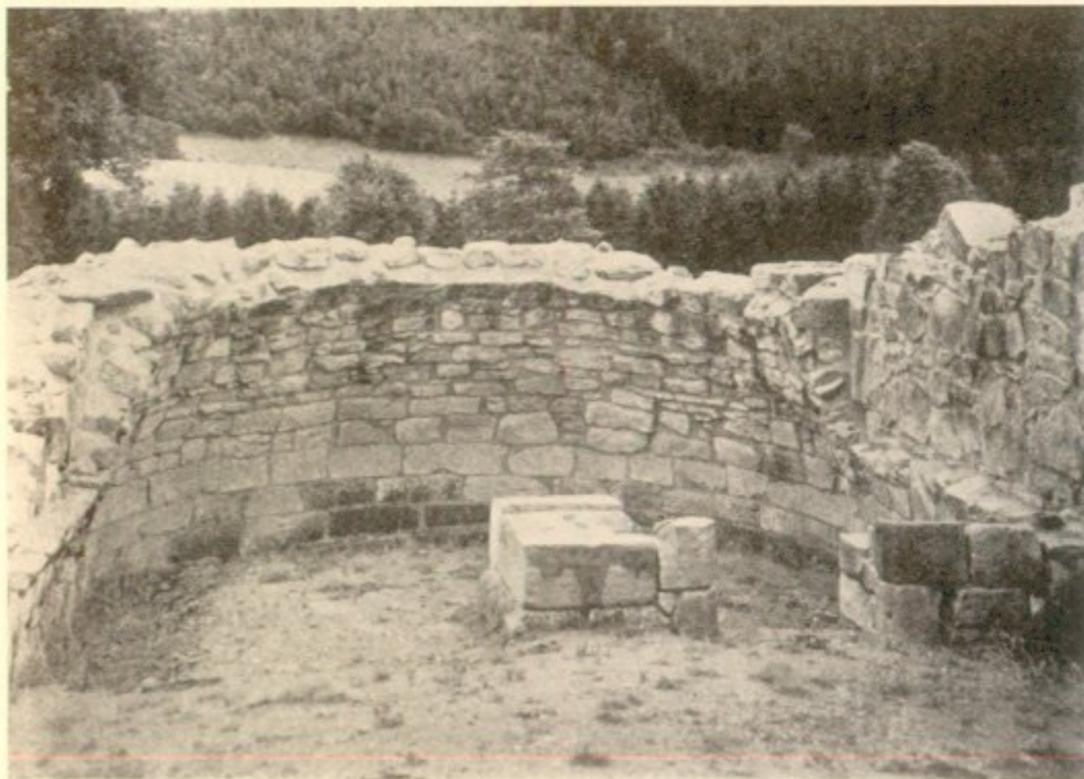
[Photo C. R. Marshall.

Fig. 8. Kildrummy Castle: Fireplace in West Lodge of Gatehouse.
(The upper two stones of the left jamb are restored.)

the west tower. Hence it occurred that when the gorge walls were built, in the west tower (fig. 10) they were run up against and incorpor-

¹ The same type of fireplace is found, among other buildings, at Carnarvon Castle (fig. 9), in work dating from 1285-9; at Conway Castle, begun in 1285; in the solar of Ludlow Castle, *circa* 1283-92; and in the Byward Tower at the Tower of London, also built by Edward I. As to the remoter *provenance* of this type of fireplace, it may be remarked that an example occurs in the Tour de Sel at Aigues Mortes, in work assigned to *post* 1239; see C. H. Bothamley on "The Walled Town of Aigues Mortes," in *Archæological Journal*, vol. lxxiii. (1916), p. 258, and Plate xiii. No. 4. The occurrence of the type in Britain may thus be due to Edward the First's connection with Aquitaine.

The only other Scottish fireplace at all resembling this one at Kildrummy with which I am acquainted occurs at St Andrews Castle, in a part of the building assignable to the sixteenth century; but the condition of the jambs of the fireplace suggests that it was rebuilt into its present position from some older building. It was doubtless originally made during the English occupation of the castle.



[Photo C. R. Marshall.]

Fig. 10. Kildrummy Castle: Interior of West Gatehouse Tower.



[Photo C. R. Marshall.]

Fig. 11. Kildrummy Castle: Interior of East Gatehouse Tower.

ated the older pier, but in the east tower (fig. 11) the pier was taken down and the gorge wall carried right across the tower at the lower level, the materials of the pier being roughly reinserted, with the splay cut away on the south side so as to obtain a flush facing. At a still later period, vaults were inserted in both towers, and their basements, thus covered in, seem to have been filled with a solid packing of dry rubble, doubtless

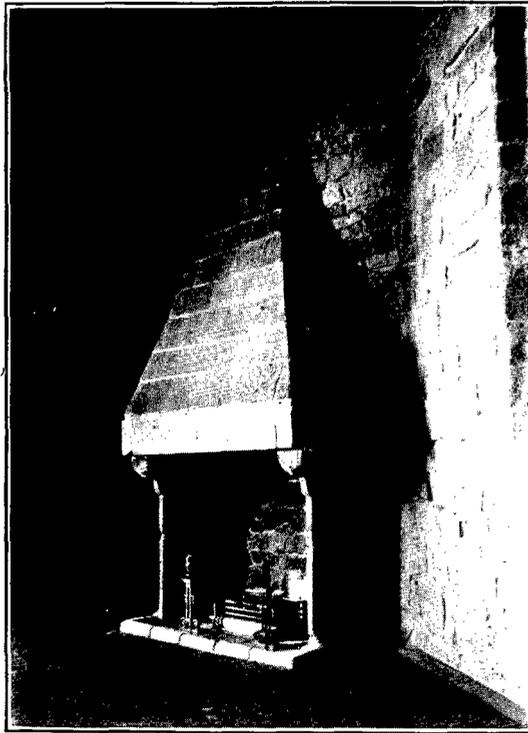


Fig. 9. Fireplace in Eagle Tower, Carnarvon Castle.¹

to render them proof against artillery. The floor of the east tower (fig. 11) is paved with herring-bone ashlar, older than the inserted vaulting, under which the pavement runs. A large forework was also built, prolonging the trance, and containing an outer gate 27 feet in advance of the original one, and a middle gate between the two. Beyond this outer gate the walls of the forework are continued as abutments for the drawbridge, the axle of which turned, doubtless within a lead jacket, in sockets

¹ This illustration is reproduced, by permission of Sir E. Vincent Evans, LL.D., from the *Transactions of the Honourable Society of Cymmrodorion*, 1915-6.

provided for the purpose; while the bridge when down rested on each side upon a carefully constructed bench, and spanned a masonry-lined pit. Behind the outer gate on the east side was a side gate (figs. 12 and 13), afterwards built up.¹ On the opposite side a square turret contains the newel stair up to the room whence the bridge was worked. Probably



[Photo G. P. H. Watson.]

Fig. 12. Kildrummy Castle: Barbican and Side Gate.²

when the forework was added, or subsequently, the original outer portal of the castle, between the two towers, was refashioned: its portcullis, which at first it must have possessed, was taken out, and a double gate was substituted. The disturbance of masonry here is still very evident.

The pit (figs. 14 and 15) measures 21 feet 2 inches in length and 8 feet

¹ This infilling has now been taken out, as shown in fig. 12.

² This illustration is reproduced from Mr W. M. Mackenzie's recent book *The Mediæval Castle in Scotland*, by kind permission of the publishers, Messrs Methuen & Co., Ltd.

10 inches in breadth, and is 8 feet deep. It is built in two sections, clearly marked off by a vertical joint in the masonry on either side. The inner portion, 8 feet 6 inches on the east side and 6 feet 10 inches on the west side, appears to be an extension, and during peaceful conditions must have been boarded over, otherwise access could not be gained to the side-gate and the newel stair. It is noticeable that the masonry of the barbican walls above the pit is continuous throughout its length, suggesting that the extension of the pit was an alteration made while the



[Photo W. Norrie.

Fig. 13. Kildrummy Castle: View of Side Gate as excavated, showing later infilling.

barbican was in course of construction. On the west side the wall of the pit beyond the joint is recessed back 5 inches, so that two rows of continuous corbelling are required to carry the bench for the bridge on this side; whereas, on the other side, the set-back does not exceed 3 inches, and only one corbel-course is necessary. The side walls of the pit are formed in good coursed rubble; the masonry of the two ends is in beautiful ashlar of close-jointed blocks in courses averaging 9 inches in height: the inner end wall is doubly battered against the slope of the ground. The pit drains by a central stone-built gutter emerging at the outer end by a sluice which is carefully checked for an iron grating. In the south wall at this end is another sluice, which has been provided with



[Photo C. R. Marshall.]

Fig. 14. Kildrummy Castle: Gatehouse Pit, looking inwards.



[Photo C. R. Marshall.]

Fig. 15. Kildrummy Castle: Gatehouse Pit, looking outwards.

an iron grating moving up and down in a well-wrought chase cut in two projecting stones.

From the inner portal of the gatehouse, abutments about 4 feet thick extend back on either side some 7 feet into the courtyard. These abutments are of one build with the gatehouse, and probably carried an arch with a *meurtrière* over the portal, just as in the rearward extension of the gatehouse at Caerlaverock Castle. As there is no evidence of any communication between the basement and the upper floors of the gatehouse, it is possible that this was supplied by external wooden stairs rising on either side along the inner face to a platform carried by these abutments.¹ From the first floor upwards, access may have been gained by a vice in the consolidation which fills up the re-entrant angle between the gatehouse and the west curtain; such a stair would also conveniently have served the garderobes here. The arrangement on the other side of the gatehouse may have been similar.

The earliest of these successive modifications that have brought the gatehouse into its present state, namely the building of the stone gorge walls in the two towers, was probably done about the end of the fourteenth century; the masonry is of a kind found nowhere else in the castle, very much joggled, and resembles masonry of this type in the Church of Bothwell, founded in 1398, and in the contemporary work at Bothwell Castle.² Perhaps the fact is not without significance that Kildrummy about this time (1374-88) was in the hands of the Douglasses, who also owned the barony of Bothwell. As pointed out in my previous account,³ the forework is evidently the building whose cost is detailed in the *Exchequer Rolls* for 1436-8, and the alteration of the original outer gate, between the towers, is probably contemporary, or shortly afterwards: at all events it was a step following upon the construction of the new advanced entrance. The vaulting of the two towers, and packing their bases against cannon fire, was doubtless done at some of the periods in the fifteenth century when we know from the *Exchequer Rolls* that building was in progress;⁴ and the blocking of the side gate illustrates the same tendency towards consolidation, which indeed is a marked feature of fifteenth-century development at other gatehouses, such as those of Tantallon and Caerlaverock. Probably in the seventeenth century, the final stage was reached when the drawbridge passed out of use, the pit being filled in, and a stepped and cobbled causeway carried right through the trance into the courtyard.

¹ One imagines an upper platform somewhat of the pattern of that which is thrown across the rear portal of the great gatehouse at Pembroke Castle.

² See my paper on "The Architectural History of Bothwell Castle," in *Proceedings*, vol. lix. p. 179, note 2.

³ *Castle of Kildrummy*, pp. 214-6.

⁴ *Op. cit.*, pp. 218, 225.

In its final form the total length of the entrance passage, from the outer end of the pit to the inner end of the rearward abutments, was about 88 feet. Thus all attack was effectively canalised, and the long narrow trance was defended by a drawbridge and by three pairs of folding gates, with probably a fourth pair closing against the courtyard. Doubtless also there would be the usual *meurtrières* opening in the flooring above.

Along the inside of the north curtain is set the great hall, with the kitchen at its lower or eastern end, and the solar or great chamber at its upper end, next the Snow Tower. The hall is of one contemporary build with the curtain.¹ It measures 71 feet 3 inches by 40 feet 6 inches, within walls 6 feet thick. Towards the north it was lit by three large windows, with a smaller loop at the east end lighting the screens. The dais window on this side was of two lights, and was secured by an inner barred shutter. On the south side are two lesser windows, furnished with side benches, and also another dais window, 3 feet 10½ inches in daylight width. The inner jamb of this window shows a semicircular hollow sunk in a broad splay, and terminated in a broach stop below, and a grotesque corbel mask above (see fig. 20, No. 7). At Maryculter Church, built in 1287, and at Cowie Church, which was consecrated in 1276, the same hollow jamb-moulding is found (see fig. 20, No. 9).² The external reveal of this window has been much altered, and was apparently converted into a door. At present its external moulding shows the wide casement of the fifteenth century (fig. 20, No. 8). No loop lights the screens on this side, and a recess here doubtless indicates the position of the door. On the inside wall at this point is a socket, perhaps for an iron rail apparently connected with the screen. The east wall of the hall, which is now reduced to a mere foundation, must have possessed two doors, one leading into the kitchen and the other descending by wooden steps into the passage between the kitchen and the chapel, which is the only means of access to the Warden's Tower and the north postern. The floor of the hall was of wood, with a shallow basement below. The span of 40 feet is too great for single timbers, so that there must have been dwarf walls, or a row of posts, as in the late thirteenth-century hall at Ludlow Castle. A hole as if for a handrail, beside the north-east stair door, and a bench below, may indicate a wooden ladder descending into the basement, which was apparently unlighted. The ledge on which the

¹ So also at Carnarvon Castle the hall, although never completed, is of one build with the curtain against which it is set, and therefore was designed from the outset, being part of the first work at the castle, 1285-91—see C. R. Peers on "Carnarvon Castle" in *Transactions of the Honourable Society of Cymmrodorion*, 1915-6, p. 12.

² See Dr W. Kelly in *Transactions of the Aberdeen Ecclesiological Society*, vol. i. (1886-9) part i. p. 28.

hall floor rested is formed by an ordinary scarcement along the south wall; but along the north wall this ledge appears as a projecting bench, now much damaged. The scarcement on the south side appears to be the result of an alteration; probably the hall floor has been heightened, and the bench on the north side was made available to suit the new level. In the hall there is no trace of a fireplace. At the north-east corner a newel stair led up to the battlement walk of the north curtain, and doubtless also to a gallery over the screens. From this gallery access would be obtained to the chapel. At the diagonally opposite



[Photo W. Norrie.]

Fig. 16. Kildrummy Castle: South Wall of Hall; Warden's Tower in rear.

corner of the hall another newel stair, well secured, served the lord's private apartments. On the exterior of the south wall was originally a plinth consisting of a bowtell above a plain chamfer. To this wall has been applied a comparatively modern building, probably of the eighteenth century, with dry walls made up of old fragments, and two partitions of similar unsubstantial materials. The floor of this building is paved with slabs of the handsome Correen stone (andalusite mica-schist), so commonly found in old Aberdeenshire farm buildings. After this late building was added, the plinth along the exterior face of the hall was cloured away to gain extra space, but remains intact at the points where the partitions butt against it (fig. 16).

The kitchen, about 24 feet square, still retains traces of its fireplace, with aumbry, sink, and drain, all in the north curtain. The solar has been almost entirely rebuilt, apparently by the first Lord Elphinstone (1508-13), the structure now occupying its place (fig. 17) being a tower-house of the L-plan, with vaulted basement and crow-stepped gable erected on the old curtain wall. A relic of the earlier arrangement is a high window overlooking the hall from the first floor of the old solar



[*Photo W. Norrie.*

Fig. 17. Kildrummy Castle: Elphinstone Tower and Hall, seen from Courtyard.

apartments, so that the lord could keep an eye on all that was going on.¹ At the north-west corner of the hall, remains of a straight mural stair, ascending westward, are visible at a high level in the north curtain.

On the east side of the courtyard is the chapel, measuring some 47 feet by 19 feet. Its position, with the hall between it and the private apartments, is paralleled at the Welsh thirteenth-century castle of

¹ As at Doune Castle, Dirleton Castle, and the (now destroyed) House of the Knights Hospitallers at Linlithgow. There are English examples at Ludlow Castle, Dudley Castle, Penshurst Place, and Great Chalfield Manor.

Caerphilly. In order to secure correct orientation it is set obliquely in the curtain, which its east end overrides. The floor of the chapel was



[Photo W. Norrie.

Fig. 18. Kildrummy Castle: View of East Front, showing Chapel Gable.

of wood, and the undercroft was entered by a door on the south side against the curtain. The east window (fig. 18) consists of three tall lancets, 14 feet 6 inches in daylight height, rising from a moulded string, and having above them a fourth smaller lancet which in its

present form appears to be a rebuild of the fifteenth century. Externally the three windows are wrought with a plain double chamfer, but inside (fig. 19) the widely splayed scoinsons are closed above with moulded bonnet-headed rear-arches springing from filleted wall-shafts with caps and bases. Round the outermost arch-mould has been a trail of dogtooth, now greatly wasted. All this detail (fig. 20) is of very good



[Photo W. Norrie.]

Fig. 19. Kildrummy Castle: Chapel Window, interior view. (This view shows the peeling of the wall-facing in the basement up to the level of the chapel floor; also the roof-raggle in the north wall, the wall-shaft cut to receive a water-table, and the inserted joist-holes, all belonging to the later lean-to erection.)

mid-thirteenth century type. At the north-east corner of the chancel is an aumbry, and beside it a door opens into a small vestry with a garderobe, constructed in a special abutment against the shoulder of the gable. Probably there was a gallery at the west end of the chapel, entered from the corresponding gallery over the screens in the hall, which in its turn would be reached by the stair in the north curtain.

There is clear evidence that the chapel is an afterthought, thrust out through the curtain; but as the detail of the east window is of distinctly thirteenth-century type, it is no less evident that the alteration was an

early one, probably while the castle was in course of erection. The proof that the out-thrusting of the chapel gable is secondary may be

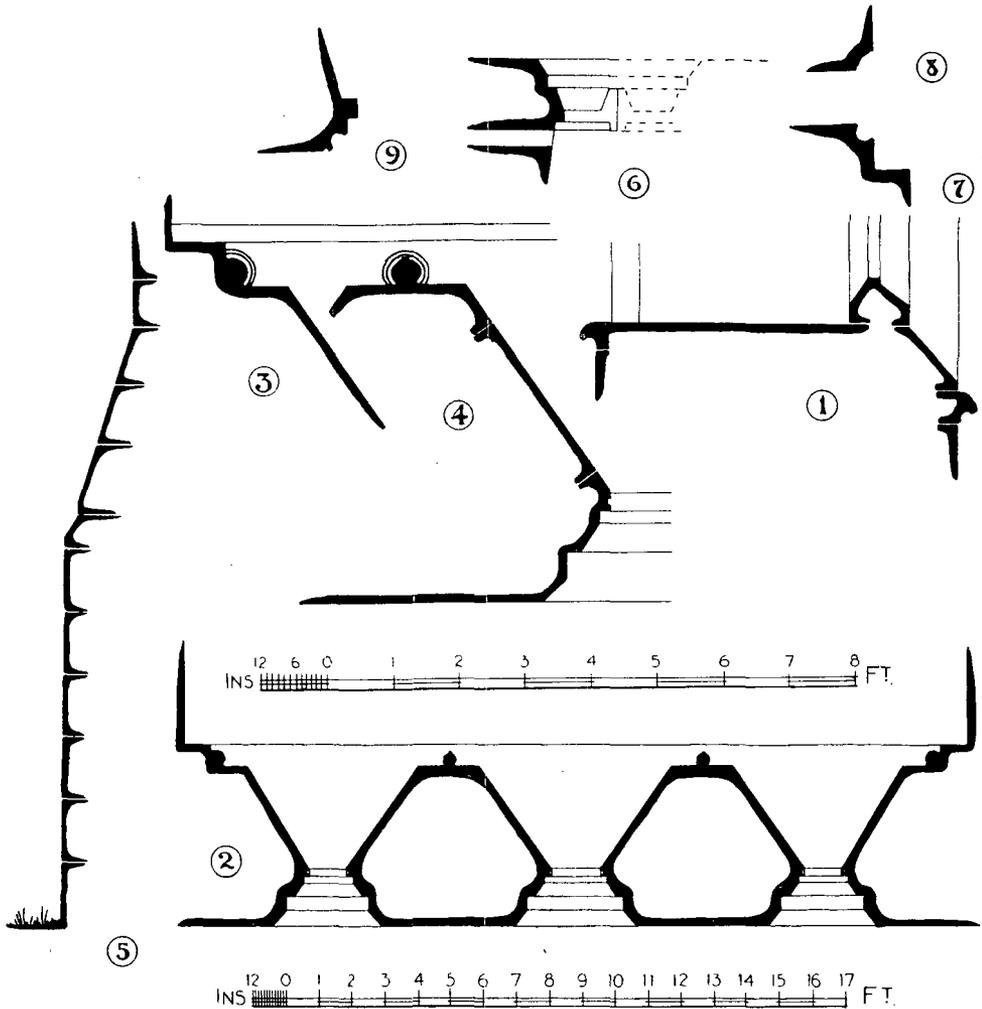


Fig. 20. Kildrummy Castle: Moulded detail—(1), Section through Chapel Window; (2), Plan of Chapel Window; (3 and 4), Enlarged Plans of Chapel Window; (5), Profile of Base of Warden's Tower; (6), Plan of West Window, south wall of Hall; (7), Moulding at interior of reveal, east jamb of West Window; (8), Moulding at exterior reveal; (9), Moulding on Door of Maryculter Church.

briefly set forth. Externally on the south side the joint, which is packed in with small chips, is clearly visible where the curtain wall meets the

ERRATUM.

Fig. 20, No. 6, is a plan of the west window in the *north* wall of the hall; Nos. 7 and 8 refer to the corresponding window in the *south* wall.

chapel. On the north side the breach made in the curtain was a larger one: the joint occurs at a distance of 10 feet north of the chapel, and the chapel gable and the rebuilt portion of the curtain form a structural unit.¹ For some reason not apparent, the rebuilt part of the curtain is set back 7 inches behind the older face. On the inside, the footing of the old curtain remains *in situ*, and is carried right through the interior of the chapel; and the splicing of the wall, where the breach took place, is quite evident at a low level on the north side below the vestry. Lastly in the chain of evidence, the interior side walls of the chapel butt without bond against the inner face of the curtain.

At a late date the chapel was desecrated, and a two-storeyed lean-to of confined dimensions was built against the inside of the east gable, the ashlar facing being torn out to gain space, and rough holes dug in the hearting for the joists, while the shafts of the windows were cut away to receive the wall-plate.²

It is curious that no traces exist to reveal the structure of the hall roof where it abutted upon the lofty solar wall. The chapel has not been vaulted, but there is otherwise no evidence as to how its roof was managed. Probably it was of the simple trussed-rafter type, without tie-beams, and either open or boarded, which was usual in smaller churches of the thirteenth century. The *Exchequer Rolls* show that the roof was renewed in 1437-8, being at that date covered with tiles.³ At Carnarvon Castle, as originally built, the granary only was slated, the other buildings, including the spacious hall, being thatched.⁴

Along the west curtain were lean-to constructions, indicated by the foundations shown on plan (fig. 31), and by the corbels and weather-table for a wall-plate (fig. 21). At the south-east corner of the courtyard is a bakehouse with three ovens, probably of the fifteenth century; a fourth oven has been inserted in the adjoining Brux Tower. The courtyard is cobbled, sloping towards the south.

In the north curtain, close against the Warden's Tower, is a port-cullised postern, leading out to a small triangular area of ground from which, without any apparent direct contact with the castle, a vaulted underground passage led down to the burn in Back Den. The vault has

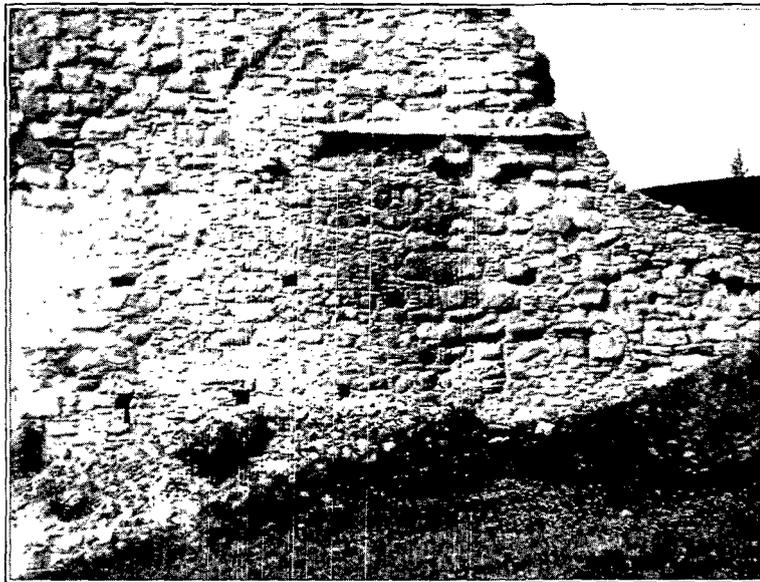
¹ See Mr C. S. T. Calder's Note appended to this paper.

² The chapel is said to have been "occupied as a place of worship so late as the year 1733" (A. Laing, *The Caledonian Itinerary*, vol. i. p. 253). If this is true, the subsequent lean-to is probably to be linked up with the evidences of eighteenth-century occupation suggested by the range of buildings along the south side of the hall. I think there can be little doubt that the castle area was occupied by agricultural buildings after its final dismantling. The lean-to in the chapel can hardly have been anything more than a shed suitable for such a purpose.

³ *Exchequer Rolls of Scotland*, vol. v. p. 59.

⁴ C. R. Peers in *Trans. Cymmrodorion Soc.*, 1915-6, p. 9.

fallen, but the deep trench of the passage remains throughout its length (fig. 22), and at the top the ashlar wall is exposed on the side next the castle. It has already been observed (p. 50) that there is no direct communication between either the Warden's Tower or the postern and the castle courtyard, from which they could be reached only through the hall by the passage between the chapel and the kitchen. The portcullis chamber of the postern was probably reached from the newel stair in the Warden's Tower. In the east curtain wall to the south of this



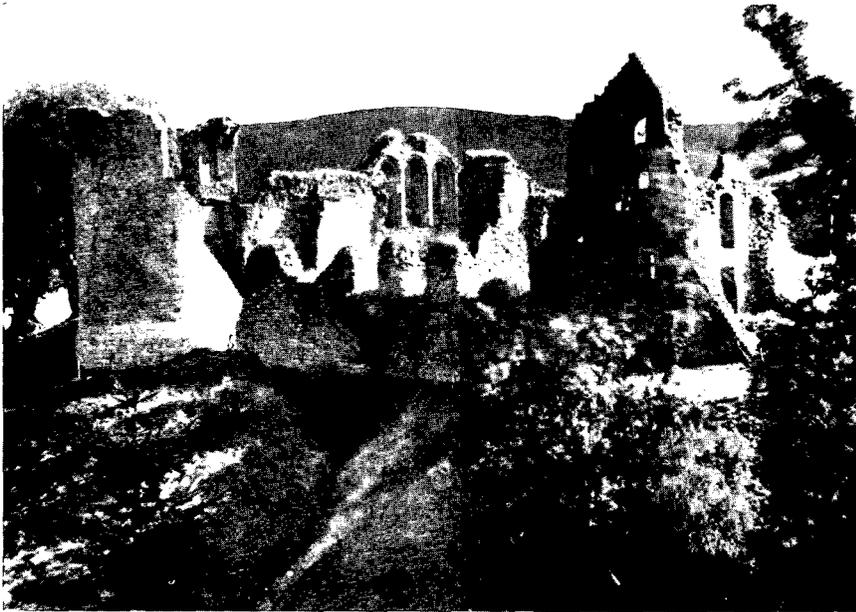
[Photo W. Norrie.]

Fig. 21. Kildrummy Castle: Interior view of West Curtain. (The two rows of putlog-holes are modern.)

tower was another postern, leading out to the *lices* on the broad area between the castle and the ditch, which area was enclosed by a *chemise*. This postern is now built up, but the portcullis chamber overhead still partly remains, and was reached from the Warden's Tower.

As usual in thirteenth-century castles, we find at Kildrummy the most careful regard for sanitation. From the number and size of the garderobes we may argue the presence of a fairly large permanent household. The garderobe in the chapel, and that in the prison of the Warden's Tower, have already been mentioned. The latter is the only garderobe within the compass of a tower. In connection with all the other towers the garderobes are arranged in the curtain walls adjoining, and must

have been reached by mural passages. The shaft of each garderobe (fig. 23) descends vertically in the thickness of the wall, and discharges at its base in a buttress through a vent divided by a central post, in order to prevent ingress or egress by so unsavoury a means.¹ One garderobe, at the south-west angle, vents through a single opening.² In connection with the west gatehouse tower, what appears to be a garderobe of a different type is found, consisting of vertical shaft, at the base of which a culvert is carried right through the curtain from back to



[Photo C. R. Marshall.]

Fig. 22. Kildrummy Castle : General view from north-west.

front. The garderobe at the south-west angle also has a culvert carried through the curtain. It would seem that the drainage of this part of the courtyard was collected into a runnel, and carried along the inner

¹ Such a precaution was not extravagant. A case of prisoners escaping from the keep at Newcastle by a latrine is instanced in J. H. Parker and Turner, *Domestic Architecture in England in the Fourteenth Century*, p. 19. Alexander I., surprised by the men of the Mearns and Moray while building a hall (*palatium*) at Lyff, near Dundee, in 1107, escaped *per latrinam*, *Joannis Forduni Scotichronicon*, bk. v. chap. xxxvi. (ed. W. Goodall, vol. i. p. 285). The hole down which, according to the well-known story, Montrose refused to climb in order to escape from Pitcaule Castle (see *New Statistical Account*, vol. xii. pp. 564-5) was perhaps a garderobe shaft.

² The corresponding garderobe in the south-east curtain has probably been of similar design.

side of the curtain, discharging through the culverts, so that the two garderobe shafts were constantly flushed. The shaft next the gatehouse is placed in a special interior construction of the same build as the gatehouse, but separated from the curtain to the westward by a joint distinctly visible on the interior, indicating that the gatehouse and curtain are not of contemporary date. Externally this joint is not in evidence, as the wall here seems to have been scabbled.



[Photo C. R. Marshall.]

Fig. 23. Kildrummy Castle: Garderobe in south-west Curtain next Maule Tower.

Although the castle through all its vicissitudes has preserved its thirteenth-century plan and its original unity of design, it is apparent, even on the most superficial examination, that the buildings at various stages in their stormy history have undergone very considerable reconstruction and repair. The north curtain, with the hall set against it, the remnants of an ancient solar embodied in the Elphinstone Tower, the chapel gable, and the six round towers, are all faced with most excellent freestone ashlar (fig. 24). The plinth on the towers is continued also along the north curtain, and is stepped up at either end to accommodate with the levels of the ground. In this curtain, the Snow Tower,¹ and the great hall is found what appears to be the oldest masonry in the castle (see fig. 22), consisting of more or less cubical, wide-jointed ashlar of quasi-Norman aspect. The curtains on the east side (fig. 18), and that on the south-west, have been much patched at various periods, but were clearly of inferior finish from the outset. The base of the south-west curtain has recently been exposed, and is a roughly constructed plinth of small stones. In spite of their inferior character, however, I see no reason for disbelieving that these curtains are not substantially original work; they bond in with the towers, and the garderobe shafts everywhere are of the same pattern. It is quite a common thing in mediæval castles for the towers to be carried out in masonry superior to that of the curtain

¹ I have now ascertained that the piece of cubical, wide-jointed ashlar facing on the north side of the Snow Tower, discussed at p. 127 of my *Castle of Kildrummy*, is a repair carried out with old stones about the beginning of this century.

walls.¹ The finer masonry and plinth in the north curtain are perhaps to be explained on the assumption that the castle was begun in a more ambitious style than it was found possible to sustain.

The west curtain shows masonry of totally different type (fig. 25), extremely rude, with stones of all sizes and slopes thrown together,



Photo W. Norrie.

Fig. 24. Kildrummy Castle: View of Chapel Window and Warden's Tower.

but containing a good deal of original ashlar blocks re-used. It rises from a base consisting of two courses of larger oblong blocks without batter. This wall is clearly an early reconstruction; the joints between it and the older Snow and Maule Towers are very evident (figs. 25 and 26), and on the inside of the curtain near its north end a fragment of the

¹ For example at Dirleton and Bothwell. In the outer ward at Corfe Castle, which is documented as the work of Edward I., the towers are beautifully finished in ashlar, while the intervening curtains are of rougher work. At Harlech, where the masonry throughout is of rubble, the work in the towers is far better than in the curtains.



[Photo C. R. Marshall.]

Fig. 25. Kildrummy Castle: West Curtain and Maule Tower.



[Photo W. Norrie.]

Fig. 26. Kildrummy Castle: Interior view of junction of Snow Tower (thirteenth century), with rebuilt West Curtain. Note mason's mark (outlined in chalk) in middle course of tower.

older foundation has recently been exposed (see plan, fig. 31). Very probably the curtain in its present form may date from the reconstruction of the castle after its dismantling by the English in 1306. Barbour tells us how Prince Edward on that occasion caused "all a quarter" of the castle to be "tumlit doune"; and Mr W. Mackay Mackenzie has pointed out that this phraseology signifies a casting down of one side of the fortified enclosure.¹ The evidence of the fabric here stands in complete harmony with the literary record.

The architectural detail of the buildings throughout has been of an exceptionally high order. A large number of carved fragments have been recovered in the course of the excavations. These include richly moulded mullions and transoms, voussoirs, caps, rybats, and other pieces ranging from the thirteenth to the fifteenth centuries, while a number of Renaissance pediments and finials indicate that the tradition of ornate building was well maintained under the Elphinstones in the late sixteenth and early seventeenth centuries. One fragment of an inscribed stone shows the letters M.B. in raised late Gothic characters; another has the letter A on a panel within an ornamental frame of late pattern. With these evidences of fine craftsmanship must also be associated the beautiful fourteenth-century sepulchral slab with an eight-pointed cross of calvary, now lying forlorn in two pieces outside the north curtain near the postern gate.

The general appearance of the castle before the Snow Tower fell in 1805 is shown by a water-colour painting formerly at Clova House (fig. 27).

III. THE ARCHITECTURAL PROBLEM.

In my former account I drew attention to the different profile of the two gateway towers, and suggested that these towers are "distinctly later" than the others.² Since then the completed excavation of the gatehouse has thrown new and searching light upon this important question. Despite its fragmentary condition, it is now clear that this gatehouse belongs to a type otherwise unknown in the thirteenth-century castles of Scotland. Among the latter the entry is usually, as at Inverlochy and Lochindorb, merely a portal in the curtain wall, which may be locally thickened in order to admit a portcullis chamber above. In more developed cases, as at Rothesay, the entry is through a square gate-tower. At Kirkcudbright, Tibbers, Coull, and Bothwell we find a still more elaborate entrance, consisting of a passage between two towers, with porters' lodges in the rear. But even at Bothwell, it is

¹ *The Medieval Castle in Scotland*, p. 59.

² *Castle of Kildrummy*, pp. 111, 129.

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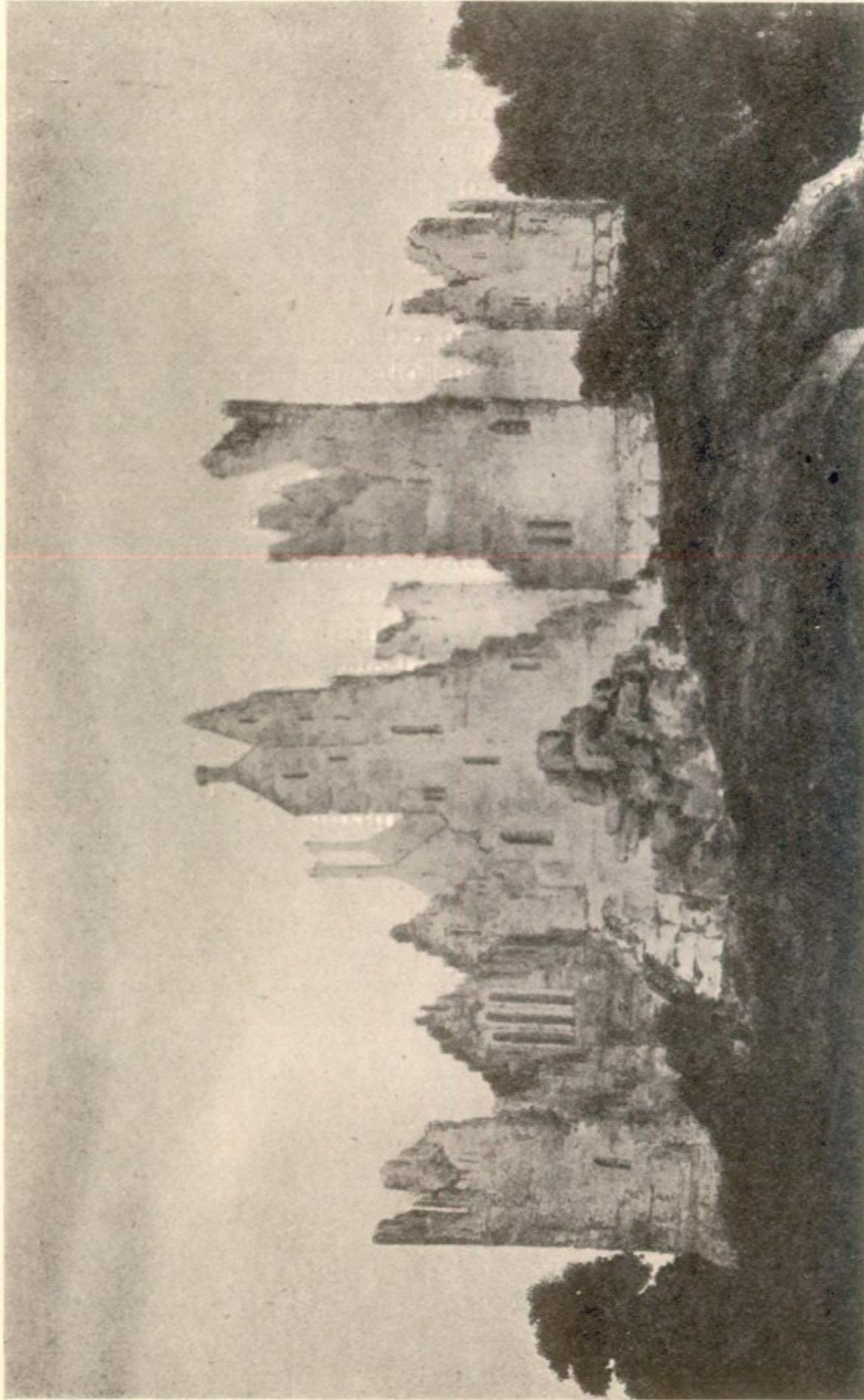


Fig. 27. Kildrummy Castle: General view from north, circa 1800. 1, Warden's Tower; 2, Chapel; 3, Brux Tower; 4, Chimneys of Bakehouse; 5, Elphinstone Tower; 6, one of the Gate-towers; 7, Snow Tower; 8, Maule Tower.

clear from a glance at the plan¹ that we have something very different and far less important than the Kildrummy gatehouse. The latter has formed a great self-contained unit, a "gemel tower" in mediæval parlance—that is, a large isolated rectangular block with twin towers to the front, trance and porters' lodges between them below, and (no doubt) apartments of considerable size and distinction on the upper floors. It will at once be recognised that this is the type of gatehouse found in the great Edwardian castles of Wales, as at Harlech, Beaumaris, Llanstephan, Aberystwyth, Kidwelly, and Caerphilly. It is amid these castles that the inspiration of the Kildrummy gatehouse must surely be sought. With this consideration the Edwardian fireplace is in entire harmony; and it may be mentioned also that the special profile found in the gate towers, where a sloping plinth rises straight from the founds, is that normally adopted in the Welsh castles.

Nor rests the matter here. In studying the Welsh gatehouses, which vary greatly in detail, I have been strongly impressed with the close resemblance between that of Harlech Castle and the gatehouse at Kildrummy (fig. 28). Except for one major point—the omission at Kildrummy of the rearward stair-towers—the two plans are practically identical. In each we have the oblong self-contained gatehouse block with twin towers in front, whose outlines pass smoothly into the walls of the trance between them, but on the other sides form a sharp re-entrant with the curtains. In each, the towers contain an apsidal chamber, behind which, in the rearward part of the gatehouse, a larger room is formed by encroaching upon the trance wall. At Harlech, as at Kildrummy, one of these rearward rooms has a fireplace. In neither gatehouse has the basement any vaulting. In both, the garderobes are contrived at the re-entrant angles between the towers and the curtain. But this is not all. From the plans and table of measurements submitted herewith, the very remarkable fact emerges that the two gatehouses are not merely closely similar in their arrangements, but they are almost identical in dimensions. Except for the absence at Kildrummy of the rear towers, and for minor variations in detail, the same measured drawings may almost have been used by the builder of each. It is difficult to believe that such a coincidence can be merely an accident. In this connection it becomes important to ascertain whether there are any known links between Edward the First's building operations in Wales and in Scotland. Fortunately the documentary evidence is not altogether silent upon this point. Edward's master of work in North Wales, between 1279 and 1299, who had the building of Rhuddlan, Harlech, Conway, and Beaumaris Castles in his charge, and from July 3, 1290 to December 28,

¹ See *Proceedings*, vol. lix. p. 173.

1293, was himself Constable of Harlech Castle, was James de Sancto Georgio.¹ Now from a letter of Edward, dated June 30, 1302, it appears

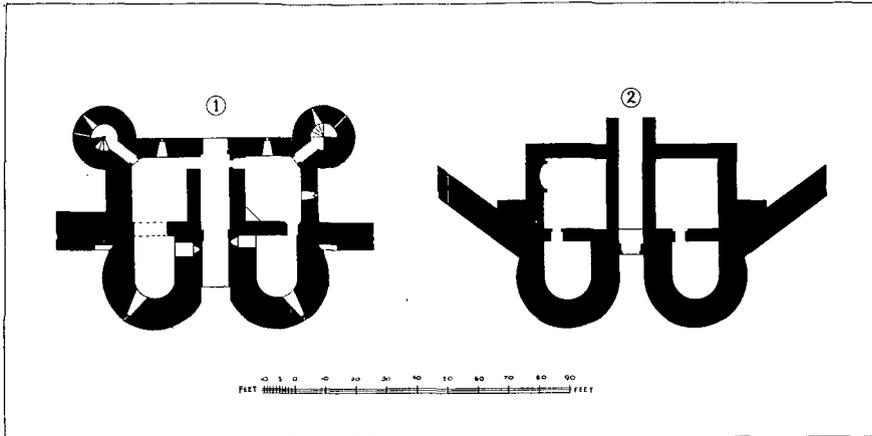


Fig. 28. Gatehouses at Harlech and Kildrummy Castles, drawn to same scale.

Measurements.	Harlech.	Kildrummy.
Total over-all breadth (excluding rear towers)	69 feet	68 feet 6 inches.
Total over-all depth (excluding rear portal)	62 feet	61 feet.
Diameter of towers	34 feet	33 feet.
Thickness of tower walls	9 feet 6 inches	9 feet 6 inches.
Length of rooms in tower	20 feet 6 inches	20 feet 6 inches.
Breadth of rooms in tower	14 feet	15 feet.
Length of rear room	22 feet 6 inches	22 feet 9 inches.
Breadth of rear room	21 feet	20 feet.
Thickness of back walls of rear room	5 feet	5 feet.
Thickness of trance walls of rear room	4 feet	3 feet 6 inches.
Width of trance	8 feet	8 feet.
Thickness of rear wall of room in towers	4 feet	3 feet 6 inches.

that Master James de Sancto Georgio was master of works at Linlithgow, where the famous "Peel" was then in course of erection.² And on

¹ For James de Sancto Georgio see J. E. Morris, *The Welsh Wars of Edward I.*, pp. 145, 219, 268-9; also *Calendar of Chancery Rolls, 1277-1326*, pp. 178, 182, 275, 326, 353; *Calendar of Close Rolls, 1288-96*, p. 423; *ibid.*, 1296-1302, p. 239. Morris describes him as the architect of the castles with which he was connected; and in this view he has been followed by Harold Hughes (*Archæologia Cambrensis*, vol. xiii., 6th Series, 1913, pp. 276-7), and C. R. Peers (*Trans. Cymmrodorion Soc.*, 1915-16, p. 29), who describes James de Sancto Georgio as "master-mason." But all the entries refer to him as "master of work," *i.e.*, the man who had the business oversight of the castle-building. He is never referred to as a master-mason, and it is clear that, although charged with the administrative and financial responsibility for the work, he was not himself the architect. According to the *Ancient Monuments Commission, Report on Flintshire*, pp. 26 and 28, the architect of Flint and Rhuddlan Castles (both built in 1277) was one Richard, "who is known to have constructed several of the great military works of the reign of Edward I." Harlech Castle is ascribed by G. T. Clark (*Medieval Military Architecture*, vol. ii. p. 79) to Henry de Elreton, but I do not know on what authority. Harlech is akin to Rhuddlan and Beaumaris rather than to Carnarvon.

² J. Bain, *Calendar of Documents Relating to Scotland*, vol. ii. No. 1308.

October 8, 1299, the roll of a court held at Linlithgow shows that James de Sancto Georgio was at that time deputy-governor of the town, his chief being William de Felton, who, it is significant to note, had been constable of Beaumaris Castle in 1296, with James of St George under him as master of works.¹ As the latter was engaged both at Beaumaris and Linlithgow in 1299, it is clear that his transference to Scotland took place in that year. Again, the master-mason employed in building the magnificent castle of Carnarvon was Walter of Hereford. He appears in charge of the work there from 1288 onwards, and by 1315 had been succeeded by his deputy, Henry of Elreton.² Now in March, 1304, we find that Walter of Hereford, master-mason, was working on Edinburgh Castle.³ From the above facts it is clear that Edward I. employed the same administrative and technical staffs on his fortifications in Wales and in Scotland; and it is accordingly most suggestive to find in the gatehouse at Kildrummy, and the windows inserted in the Warden's Tower, such unmistakable links with the Welsh fortresses. It is indeed abundantly clear that the "Hammer of the Scots" has left his mark most legibly upon our "noblest of northern castles."

If then we are agreed that the gatehouse at Kildrummy is Edwardian, the question at once emerges: what preceded it? That the entry was always in this quarter is self-evident. There may have been originally two towers here, with the portal between them, as at Bothwell. Or the two curtains may have come together upon a square gate-tower, as at Rothesay. All that can now be said is that there is no evidence for either of these views. A third possibility must not be left out of account, namely, *that the present gatehouse never had any predecessor*; that the design of the castle, in fact, was not completed till the Edwardian gatehouse was built. In my former account I drew attention to the distinct masonry evidence that the erection of the castle occupied an appreciable period of time, and that the engineers, as they naturally would, began their operations on the back or north side, and worked round towards the front. At one of the Welsh castles, Kidwelly (fig. 29), there occurs a remarkable parallel instance of a gatehouse forming an integral part of the original design, but not completed until a later date. It is clear from the most cursory glance at the plan of this castle that its great

¹ J. Stevenson, *Documents Illustrative of the History of Scotland*, vol. ii. p. 393. For William de Felton, see Morris, *op. cit.*, p. 263. His connection with Scotland appears to date from the Falkirk campaign (1298), in which he was summoned to serve with thirteen valets. He was in command of the infantry from Anglesey, *ibid.*, p. 287.

² See C. R. Peers on Carnarvon Castle in *Trans. Cymmrodorion Soc.*, 1915-16, pp. 7, 10, 15.

³ Bain's *Calendar*, vol. ii. No. 1536. In a list of the garrison of Stirling Castle "probably at its surrender to the Scots in 1299," occurs the name of "Richard the mason" and two companions. In the total list of about ninety people, only one man, William of Lanark, bears a distinctively Scottish name (*ibid.*, No. 1119). Is this Richard the architect of Flint and Rhuddlan?

gatehouse was conceived from the outset where and as it now stands; the whole plan is hinged upon it, and the entry to the inner enclosure is left almost undefended in reliance on the formidable outer gatehouse. Yet while the rest of the castle is substantially of the later thirteenth century, the Perpendicular details of the gatehouse make it equally evident that this part was not built until a full century later. We can only conclude that during the interval a temporary defence, of palisaded earthwork possibly, must have supplied its place. Something of the same kind may well have been the case at Kildrummy. I conceive that the gatehouse here was built in the time of

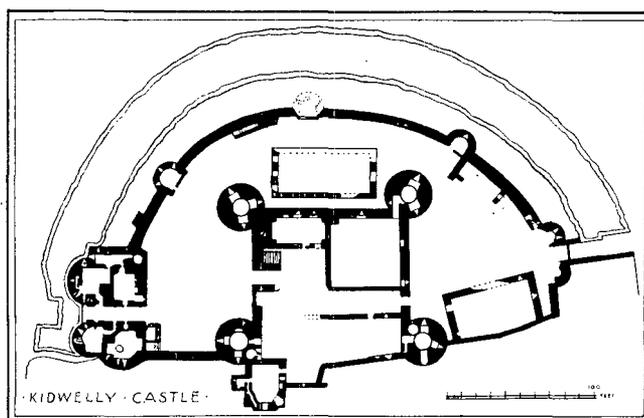


Fig. 29. Plan of Kidwelly Castle, Carmarthenshire.

Edward I., as the finishing touch to a long process of construction upon one original design.

In his recent Rhind Lectures on *The Medieval Castle in Scotland*,¹ Mr W. Mackay Mackenzie, F.S.A.Scot., expressed serious doubts as to whether Kildrummy Castle, as we now see it, is the building existing in the thirteenth century, and besieged by Edward of Carnarvon in 1306. After summarising Barbour's account of the siege, Mr Mackenzie comments as follows: "It is plain that the idea of Kildrummy in 1306, which Barbour had in his mind, is not that of the place we see to-day." But there is really nothing in Barbour's description that is incompatible with the present castle. His language is fairly general. The parts of the castle specifically mentioned are the "barras hald"; the "mekill hall," which was used as a granary during the defence, and through whose "thik burd" the conflagration started by Osborn appeared "ferst as a

¹ Published in 1927; for Kildrummy see pp. 55-61.

sterne, syne as a moyne"—a phrase which perhaps suggests that its wooden roof became ignited, but certainly does not justify Mr Mackenzie's assumption that the entire building was of timber; the curtain wall—

“that at that tym wes batallit all
Within, rycht as it wes with-out”;

and the “yhet,” which was burned, but which the active defenders “muryt up” again.¹ Further it may be noted that Barbour thrice dwells with special emphasis on the great strength of the castle.²

Mr Mackenzie is disposed to lay much stress upon the detail which the poet mentions about the wall “at that time” being embattled on both sides. “This battling,” he writes, was of the Kildrummy “‘at that tym,’ not of the place when he wrote; there had obviously been some reconstruction.” But to sweep away the present Kildrummy on the strength of so slight and incidental a phrase seems to me an altogether unwarranted procedure. If any significance at all is to be attached to the three words, they may signify (as I have already suggested) merely some temporary defence, such as a timber hoarding covered with drenched skins, which afforded the defenders brief and precarious shelter from the flames. At all events, the remark is certainly not sufficient to justify Mr Mackenzie's suggestion that Barbour had in his mind a castle radically different from the one he knew when writing about 1380. Commenting on the fact that the Snow Tower was vaulted on every floor, Mr Mackenzie observes that “with a fireproof tower of this sort in existence, it would have been strange for Barbour to say that the garrison saved themselves from the fire only by taking refuge within the double embattlements of the wall.” But surely this is straining Barbour's evidence to breaking point. After all, he gives us very little detail as to the actual course of the conflagration. Likely enough the rapid onset of the flames may have prevented the defenders dispersed along the wall-heads from escaping into the Snow Tower. It is clear from an examination of the castle to-day that there has never been a complete passage all round the *enceinte* at the parapet level. The garrison would thus have to descend the spiral stairs and endeavour to make their way across the courtyard through a raging mass of flames.

On the general question raised by Mr Mackenzie I would merely offer the following criticism. It seems to me that all arguments against the thirteenth-century date of the present Kildrummy Castle are bound

¹ See Barbour's *Bruce*, bk. iv. lines 59-175 (ed. W. M. Mackenzie, pp. 58-61).

² *Ibid.*, bk. iii. lines 335-42; bk. iv. lines 65-6, 101-4 (ed. W. M. Mackenzie, pp. 44, 58, 59).

to break down utterly upon the bedrock question of the plan. Studying this in all its aspects, one becomes strongly impressed with two facts. The first is its unity of design, in which all parts are adjusted and coordinated in harmony as a coherent whole—with the single exception of the chapel, whose abnormality is sufficiently explained, I think, by the desire for correct orientation. In any case the chapel—undoubtedly a thirteenth-century building—is obviously later than the curtain through which it is thrust out. Its orientation in the curtain is after all no more abnormal than its presence where it is, and the great prominence given to its east end in the *enceinte*. The whole character of the chapel, indeed, is unique; and I think a quite sufficient explanation is to be obtained if we remember that the castle had an ecclesiastical founder. The second fact is the completely thirteenth-century nature of the design, with its great donjon, single envelope, and simple arrangement of the interior buildings. Whatever sectional reconstruction may have taken place in its long and stormy history, the above two facts completely justify, in my opinion, the view that the castle as we know it to-day is substantially the castle so gallantly defended by Nigel Bruce in 1306. Moreover, the evidence of plan is reinforced by the evidence of detail. All the mouldings and other details of the chapel, the style and proportion of its lancet windows, the mouldings and plinth of the hall, the profile of the bases of the towers, and a great deal of the carved fragments now assembled in the Elphinstone Tower, are all distinctly of thirteenth-century character. Nor can we overlook the evidence supplied by the insertion of Edwardian windows in an older tower, and the presence of an Edwardian gatehouse which is clearly secondary.

Apart from obvious additions, and from inevitable reconstruction and patching in detail, I feel strongly how impossible it is to imagine that the building as we see it could be the product of the absorption of thirteenth-century remnants in a piecemeal reconstruction of the fourteenth and fifteenth centuries. The more closely I study the Kildrummy ruins, the profounder grows my conviction of the fact that the two leading characteristics of the building are the unity and the thirteenth-century nature of its design. Mr Mackenzie closes his very stimulating discussion somewhat negatively by observing that “one is perhaps justified in suggesting that probably rather more fourteenth- and fifteenth-century work subsists in Kildrummy than has hitherto been suggested.” With such a verdict I am well enough inclined to agree; but I stipulate that rebuilding, where it has taken place, has followed the original lines of the thirteenth century.

I have to record my special thanks to Mr James S. Richardson,

F.S.A.Scot., H.M. Inspector of Ancient Monuments, who has done me the favour to go most carefully over the ruins with me, so that I have had the great advantage of his exceptional knowledge of mediæval architecture in checking my own views, which, in not a few important details, have undergone modification as a result of Mr Richardson's criticism. It is a pleasure also to acknowledge my indebtedness to my colleague, Professor C. R. Marshall, M.D., LL.D., of Aberdeen University, for his beautiful series of photographs; to Mr Thornton L. Taylor, who assisted me in surveying the ruins; and to Mr J. Fenton Wyness, A.R.I.B.A., F.S.A.Scot., who has prepared the measured drawings under my direction. Nor would it be seemly to omit due recognition of the courtesy which I have received from the proprietor, Colonel James Ogston of Kildrummy, who has accorded me every facility for examining, measuring, and photographing the ruins at all stages of the long-continued work of excavation and repair.

For much information on points of detail in regard to Harlech Castle, and for the gift of sun-prints taken from his large-scale measured drawings of its gatehouse, I am obliged to Mr H. Harold Hughes, F.S.A., R.C.A., A.R.I.B.A.

Since the foregoing was in type, I have been favoured with a most interesting communication from Mr C. S. T. Calder, F.S.A.Scot., of the staff of the Scottish Royal Commission on Ancient Monuments. Mr Calder offers an explanation of the anomalies in the lay-out of the chapel which seems to me so exactly to meet the circumstances that I have great pleasure in appending Mr Calder's communication herewith.

ADDITIONAL NOTE. BY C. S. T. CALDER, F.S.A.SCOT.,
23rd January 1928.

From a study of the plan of Kildrummy Castle it is observed that a breach has been made in the curtain wall between the Warden's and Brux Towers for the reception of the eastern end of the chapel. It is also noticed that this end does not fairly fit the breach intended for it, as might be expected, but superimposes on the curtain at the south side and leaves a gap on the north side. (Fig. 30, sketch A.)

In my opinion, this point represents a change of design immediately after operations had begun; and, on the evidence of the now lop-sided breach, I would suggest that the first intention was to lay out the chapel rectangularly to the existing walls and fill the opening squarely. (Fig. 30, sketch B.)

To accommodate the widely splayed east windows, a slap in the

curtain was necessary, at least as far as the sills, and it required comparatively little extra effort to make an extension beyond the curtain, and gain the increased internal accommodation within the chapel, which was evidently desired.

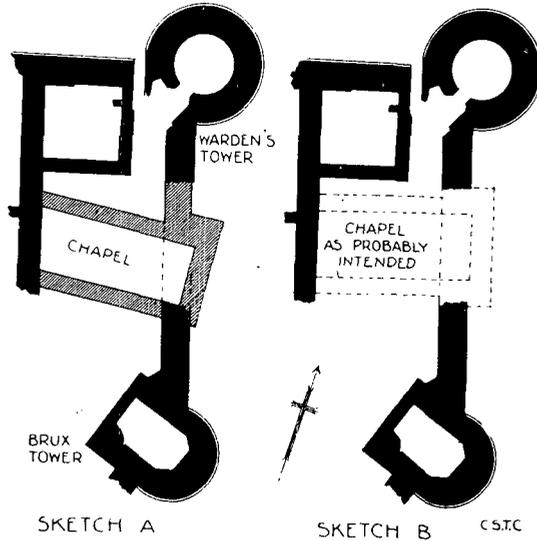


Fig. 30. Kildrummy Castle: Sketch Plans to show alteration in lay-out of Chapel.

A windowed gable on the lines of the first conception, sketch B, presents an element of weakness, as it cannot be effectually covered by the field of fire from the adjacent parapets or towers. To surmount this difficulty and enfilade the eastern wall by swinging the chapel southwards is a probable explanation for the departure from the original project, the southward inclination being made in preference to northward, to obtain a truer orientation.

MONDAY, 9th January 1928.

PROFESSOR THOMAS H. BRYCE, M.D., F.R.S.,
in the Chair.

A Ballot having been taken, the following were elected Fellows:—

JAMES FLETT, A.I.A.A., Hillhead, Bankend Road, Dumfries.

Miss I. F. GRANT, Balnespick, Tomatin, Inverness-shire.

ALLAN MACFARLANE HENDERSON, W.S., 23 Grosvenor Street.

WILLIAM E. F. MACMILLAN, F.S.A., 42 Onslow Square, London, S.W.7.

ROBERT CLARK MORRISON, 5 Atholl Place.

JOHN D. ROSS, LL.D., 8758 95th Street, Woodhaven, N.Y., U.S.A.

ALLAN WILLIAMS, Brook Cottage, Newcastle, Co. Down, Ireland.

ROBERT F. WILLIAMSON, 4 Grange Terrace.

The following Donations to the Museum were intimated and thanks voted to the Donors:—

(1) By Dr J. C. SIMPSON, Gracemount Farm, Liberton.

Stone Axe-hammer of Basalt (fig. 1) with deep semicircular indenta-

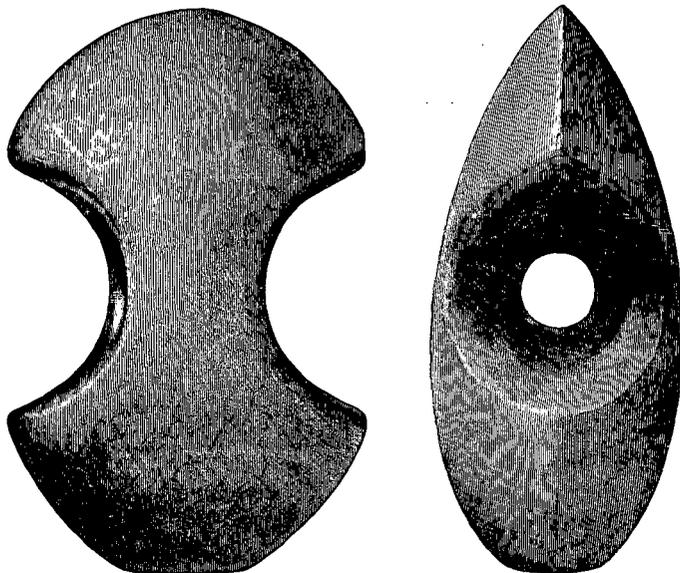


Fig. 1. Stone Axe-hammer from Wick Harbour.

tions on the top and bottom edges, measuring $4\frac{3}{8}$ inches long, $2\frac{5}{16}$ inches deep, and $2\frac{1}{16}$ inches thick; the perforation is bi-conical and measures $\frac{9}{16}$ inch in diameter at the centre. Dredged up in Wick Harbour from the bed of the estuary of the river of Wick, near the back of the North Quay.

Stone Axe with flattened top and bottom edges, measuring $6\frac{5}{8}$ inches by $2\frac{9}{16}$ inches by $1\frac{3}{8}$ inch; Flat Bronze Axe with very slight flanges and faint thickening at centre, measuring $5\frac{3}{4}$ inches in length, one of the horns of the cutting edge being broken off; and cutting end of a Flat Bronze Axe, measuring $2\frac{1}{16}$ inches across the cutting edge. From Caithness; exact locality unknown.

Combined Lamp and Candlestick of sandstone, measuring 6 inches by $5\frac{3}{4}$ inches by $2\frac{1}{4}$ inches. There is a large square cavity for oil on the top, and a sloping spout for the wick leading out of it at one corner; in each of the other three corners is a circular socket, $\frac{1}{16}$ inch in diameter, for a candle. Found, while cutting peats, in a moss at Kilminster, near Wick.

Stone Adze from New Zealand.

(2) By Miss MORAG MACLAGAN, F.S.A.Scot.

Collection of Old Blankets, specimens of Hand-woven Fabrics, and Wools dyed with native dyes, chiefly from the Highlands and Hebrides; Lint Skutch from Islay, and Wooden Beetle from the Hebrides.

(3) By CHARLES E. WHITELAW, I.A., F.S.A.Scot.

Lochaber Axe Head of Iron, from Rothie-Norman, Aberdeenshire.

(4) By SIMON BREMNER, Corresponding Member.

Stone Sinker with a groove round one end, 4 inches long, from Midtown, Freswick, Caithness.

Two Stone Sinkers, encircled by a single groove, measuring $4\frac{5}{16}$ inches and $3\frac{1}{2}$ inches in length, and a Bronze Needle and two Wire-headed Pins, from a kitchen midden on Freswick Links.

Bronze Needle (eye broken) and two small fragments of Sheet Bronze, also a wall fragment of a Vessel of dark drab-coloured Pottery (the wall is only $\frac{5}{16}$ inch thick at most), inverted at the mouth, devoid of ornamentation, but having on the exterior some marks as if made by grass. Found beside the excavated earth-house on Freswick Links.

Part of base of a large Stone Vessel, from Everley Broch, Caithness.

(5) By J. HEWAT CRAW, F.S.A.Scot.

Old smith-made Dutch Hoe, which belonged to David Blythe, Yetholm, King of the Gipsies, born in 1795.

(6) By A. BASHALL DAWSON, F.S.A.Scot.

Fire Mark of the Edinburgh Friendly Insurance Company, showing two hands clasped and number 8210. The mark retains its original gilding and blue paint, having never been nailed up on the house. In faded ink on the back is the name ALEXANDER PRINGLE, ESQ., WHITEBANK (Selkirk), to whom it was probably issued.

(7) By Dr T. WALKER-LOVE, F.S.A.Scot.

Small Clay Pot, light yellow in colour, measuring $1\frac{3}{8}$ inch in height and $1\frac{1}{16}$ inch in greatest diameter, found when road-making on Fannyside Moor, Cumbernauld, Dumbartonshire, in 1895.

(8) By Miss K. D. GOURLAY, Daughter of the Finder.

Crucifix of Bone (fig. 2), imperfect, dug up by Robert Gourlay in his garden at Kirkton of Craig, Montrose, Angus, about thirty-five or forty years ago.

(9) By WILLIAM BIGGAR, late Inspector of Police, Castle Douglas.

Life-preserver of Iron, with sharpened blades in the shaft which spring out when grasped by an assailant.

(10) By J. S. ELLIOTT, 12 Priestfield Road.

Pair of Polo Sticks, used about 1875 by the Luffness Polo Club.

(11) By the Representatives of the late CHARLES STEWART, W.S., F.S.A.Scot.

Fragment of Samian Bowl with panels bearing human figures and phallic emblems, found at Inveresk, Midlothian.

(12) By W. L. JOHNSON, Esq., of Strathaird, Skye.

Beaker of yellowish-brown ware (restored), measuring from 8 inches to $8\frac{1}{2}$ inches in height, $6\frac{1}{2}$ inches in external diameter at the mouth



Fig. 2. Bone Crucifix found at Kirkton of Craig, Angus. (†.)

6 inches at the neck, $6\frac{1}{2}$ inches at the bulge, and $3\frac{7}{8}$ inches across the bottom. The vessel is encircled by two bands of ornamentation consisting of chevrons, lozenges, and transverse lines incised with a blunt-pointed tool. Found in a cist with burnt human remains in a long cairn at Kilmarie, Skye. (See previous Communication by J. Graham Callander, F.S.A.Scot.)

(13) By D. C. MACKIE, F.S.A.Scot.

Fire Mark of Copper, of the Insurance Company of Scotland, displaying a crown above a sword and two sceptres crossed.

The following Donations of Books to the Library were intimated :—

(1) By Mrs M. E. CUNNINGTON, the Authoress.

The Pottery from the Long Barrow at West Kennet, Wilts. Devizes, 1927.

(2) By THE WYKEHAM PRESS.

National Ancient Monuments Year Book. Edited by John Swarbrick, F.R.I.B.A. Manchester, 1927.

(3) By Rev. A. M. MACFARLANE, F.S.A.Scot., the Author.

Sea Myths of the Hebrides: a Paper read to the Inverness Field Club. Inverness, 1927.

(4) By the CURATOR OF THE MANX MUSEUM.

Journal of the Manx Museum. Vol. i., No. 13.

(5) By the ACTING DIRECTOR, National Museum of Ireland.

Catalogue of Irish Gold Ornaments in the Collection of the Royal Irish Academy. By E. C. R. Armstrong, F.S.A. Dublin, 1920.

(6) By ROBERT MURDOCH LAWRENCE, F.S.A.Scot., the Author.

North-east Doric Dramas. Aberdeen, 1927.

(7) By RICHARD QUICK, F.S.A.Scot.

Russell-Cotes Art Gallery and Museum, Bournemouth. Fifth Annual Report.

Souvenir of the Irving Collection.

(8) By D. C. MACKIE, F.S.A.Scot.

Fire Marks and Insurance Office Fire Brigades. By Bertram Williams.
London, 1927.

(9) By Miss MORAG MACLAGAN, F.S.A.Scot.

Old Highland Weaver's Pattern and Carding Book.

It was announced that the following Books had been purchased for the Library:—

The Druids—A Study in Keltic Prehistory. By T. D. Kendrick, M.A.
British Museum, London, 1927.

Ancient Egyptian Metallurgy. By Major H. Garland, O.B.E., M.C.,
F.C.S., and Professor C. O. Bannister, M.Eng., A.R.S.M., F.I.C. London,
1927.

The following Communications were read:—