Breachacha Castle, Coll: Excavations and Field Survey, 1965 – 8

by D. J. Turner and J. G. Dunbar

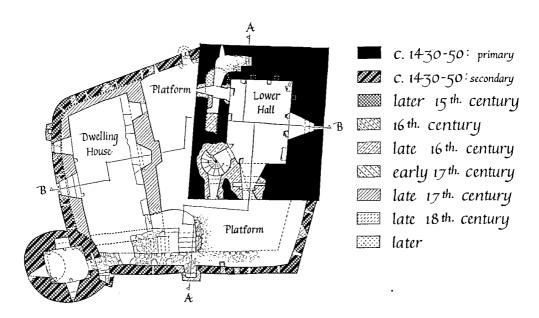
In 1965 Breachacha Castle, Isle of Coll, was purchased by Major N V MacLean Bristol, a descendant of the family of MacLean of Coll. Major Bristol decided to restore the castle for residential use, but suggested that the castle should first be resurveyed and, where appropriate, that excavation should be carried out. Restoration work was, in fact, re-phased to allow excavation to continue over four seasons under the direction of Mr Turner. Two extended visits were also made during this period by staff of the Royal Commission on the Ancient and Historical Monuments of Scotland, who completed a survey of the standing buildings under the direction of Mr Dunbar. The excavations were financed in part by grants from the Society of Antiquaries of Scotland, and in part by the generosity of Major Bristol and others. It is a pleasure to record the excavator's gratitude for this support. Volunteer labour only was employed throughout, and the excavator is grateful also for the enthusiastic assistance of the many volunteers who took part. The Commissioners have agreed that the survey report prepared for the Commission should be freely used in the compilation of this paper, and all the drawings and photographs are Crown Copyright except figs 5-9, 12-14 and pl 17.

INTRODUCTION

The castle (pl 13, figs 1-4) stands upon a low rocky promontory at the head of Loch Breachacha, formerly called Loch-na-Chaisteal, about 3 miles from the SW tip of the island of Coll. The site enjoys certain natural defensive advantages, being protected by the sea on its E and S sides, and by an area of marshy ground to the W. On the N side, however, which forms the main landward-approach, the ground is today firm and open, rising gently towards an extensive tract of machair situated at an elevation of about 50 ft above sea-level. Thus the castle is not advantageously situated on the landward side.

The site has evidently been chosen primarily because of its accessibility to sea-borne traffic and the protection it can afford to beached vessels. Loch Breachacha itself forms a convenient anchorage, while small craft can be drawn up at high tide in the little sandy bay immediately to the SE of the castle, through which the Breachacha Water flows towards the sea. The promontory upon which the castle stands extends southwards as a rock spine along the western side of this bay, and at the outer extremity of the promontory there may be seen the remains of a roughly constructed breakwater, which appears formerly to have returned in an easterly direction to shelter the bay on its seaward side. Evidence obtained during the present excavations suggests that the level of the ground on the W side of the promontory has risen during comparatively recent times, and that the sea may formerly have come much closer to the castle on this side than it does today.

There appears to be no provision for water-supply within the castle, but there was a spring immediately to the N of it, while other springs discharge along the adjacent foreshore.



First-Floor Plan

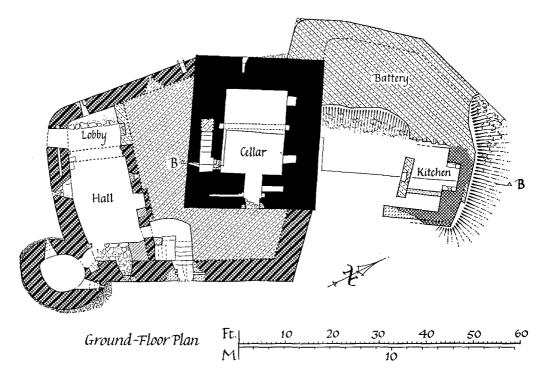
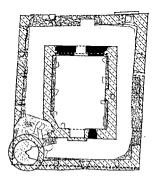


Fig 1 Ground- and first-floor plans of castle

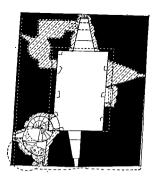
SUMMARY OF ARCHITECTURAL DEVELOPMENT

The architectural development of the castle is complex, and in some details obscure, but the main phases of construction appear to be as follows.

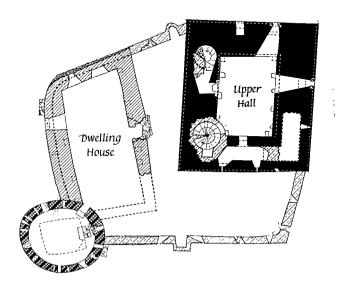
The oldest surviving portion of the castle is the tower-house, which was probably erected during the first half of the fifteenth century. This was a rectangular building of four main storeys having a parapeted wall-head within which there was a garret-chamber. The entrance-doorway



Garret-Floor Plan



Third-Floor Plan



Second-Floor Plan

Fig 2 Upper-floor plans of castle

was situated in the E wall¹ at approximately ground-floor level, while within the thickness of the S wall a staircase rose to the full height of the building. Each storey contained a single main apartment, and there was also an associated series of mural chambers and garderobes.

After the completion of the lower stages of the tower-house, but probably as part of the same scheme of building operations, the S and E sides of the tower were enclosed by a curtain-wall surmounted by a crenellated parapet. Against the S wall of the courtyard thus formed there was built a single-storeved hall, and at the SE angle of the curtain-wall a cylindrical flanking-tower two storeys in height. The curtain was pierced by two entrance-doorways, of which the first, at the centre of the E wall, was conveniently placed to give access to the tower-house, while the second, situated at the W end of the S curtain, entered behind the W wall of the hall. Subsequently, however, the SW corner of the courtyard was enclosed on its N side to form an entrance-lobby. A small lean-to building probably occupied the NW corner of the courtyard abutting the towerhouse, while ancillary buildings of turf or dry-stone construction may have stood within an outer enclosure beyond the curtain-wall. This outer enclosure also contained at least one building of stone and lime, namely a kitchen situated immediately to the N of the tower-house, adjacent to the spring mentioned above. This was presumably erected some time during the period between the completion of the tower-house and courtyard and the commencement of a major scheme of reconstruction towards the end of the sixteenth century.

During the course of these late sixteenth-century alterations the original mural staircase in the tower-house was blocked up, and a new turnpike-staircase constructed in the SE angle between first-floor and parapet-levels. The third floor and upperworks of the tower were remodelled, while at the same time a new entrance-doorway was formed in the E wall at first-floor level, the original ground-floor opening being either blocked up or restricted in height. Within the courtyard the original parapet and parapet-walk were raised several feet in height and boxmachicolations were constructed above the two entrance-doorways. The entire open area of the courtyard was filled with sand and boulders, thus forming platforms along the S and E sides of the tower-house between ground- and first-floor levels. Prior to this, differences in ground-level on the site had ensured that the ground-floor entrance in the E wall of the tower was elevated several feet above the level of the courtvard outside.

These alterations necessitated some re-organisation of the access-arrangements. Henceforward the doorway in the E curtain constituted the principal entrance, giving access, by means of a somewhat awkwardly contrived open-well staircase, to the E parapet-walk and thence via the E platform to the tower-house. This new staircase appears to have encroached upon the NE corner of the hall, and it may have been at this period that compensatory space was provided by breaking down the original W wall of the hall and taking in the area of the now superseded entrance-lobby in the SW corner of the courtyard.

The next phase in the development of the castle appears to have been carried out early in the seventeenth century, when the main work undertaken was the construction of an artillery defence on the N side of the tower-house to protect the vulnerable landward-approach. This was intended to comprise a low forework, or battery, of multangular plan embracing the kitchen-area, but only the W portion of the battery was completed. To the same period there may also be ascribed a further remodelling of the upperworks of the tower-house in which the stair-head was altered to make room for a small turret corbelled out at the SE angle, while the parapet and the roof of the garret-chamber were raised in height.

¹ The cardinal points of the compass are used for convenience of description; the true orientation is shown on the plans (figs 1 and 2).

The last major alterations to the structure were probably carried out some time during the second half of the seventeenth century, when the early hall was superseded by a substantial three-storeyed dwelling-house constructed upon the same site. This house incorporated a good deal of early masonry in the lower portions of its walls, and was lit on its S side by windows struck through the parapet of the old curtain-wall. Access to the interior was obtained by means of the existing doorways in the curtain-wall, the upper floors being reached from the well-staircase and associated platforms.

About the year 1750 the castle was superseded by a new house erected upon an adjacent site, but some at least of the buildings remained in occupation for a considerable period thereafter, and the roof of the tower-house was still intact in 1843 (NSA, VII (Argyll), 207; cf also pl 16a). One of the buildings thus occupied was the old kitchen on the N side of the tower-house. to which alterations were made during the course of the eighteenth and nineteenth centuries. Certain minor items of repair and restoration were carried out elsewhere in the castle by the proprietor, General Stewart, in about 1930-8 (Simpson 1941, 54).

DESCRIPTION

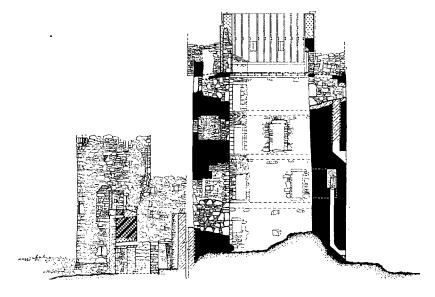
The Tower-house

The tower (figs 1-2) is oblong on plan and measures about 32 ft 6 in from E to W by 28 ft transversely over walls some 7 ft 6 in in thickness at ground-floor level; it rises to a height of about 44 ft. A remarkable feature of the construction is that the walls in general measure about 1 ft more in thickness at third-floor level than at ground level, the upper portion of the inner wall-face showing a marked inward inclination whilst the outer wall-face tends to bulge out (cf figs 3-4). The masonry is of local metamorphic rock bound with shelly lime mortar and showing an abundance of pinnings. Many of the larger facing-stones comprise boulders set on edge, a feature found throughout the greater part of the castle. The original door- and windowopenings, and likewise the quoins, are formed from the same materials as the body of the walls. but many of the later openings have dressed margins of greenish-yellow sandstone quarried from the Carsaig beds on Mull (Simpson 1941, 34). These latter openings have chamfered arrises, and the windows show glazing-grooves and bar-sockets.

The walls, which were formerly harled (pl 17a), can be seen to be resting in part upon the underlying rock. Excavation within the tower showed that the surface of the rock is highly irregular, and that there is at least one deep V-shaped depression running transversely to its long axis (fig 6). This declivity was found to be filled with sand covered by loose stones, but it is probable that only the stones were laid by the castle-builders, and that the sand was already in the declivity when building started. Part of the S wall of the tower rests directly on the loose stones of the fill. Towards the SE angle the facework of the E and, more particularly, of the S walls shows traces of repair and reconstruction, which may have become necessary in consequence of the insertion of the turnpike-stair within this corner of the building.

The original entrance-doorway in the E wall appears to have been lintelled beneath a relieving-arch, the inner portion of the opening having been roofed with a segmental-headed vault. The external facework of the entrance has been restored, except at the foot, where there may be seen some of the blocking inserted when the doorway was closed up or restricted in height at the end of the sixteenth century. Within the doorway, which is rebated, there is provision for two draw-bars, the inner one having no counter-socket.

The outer face of the E wall is set on the edge of a steeply plunging rock-face (fig 6), and originally the threshold of the doorway lay about 6 ft above the level of the courtyard, access



Developed Section A.A.

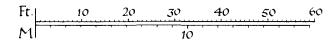
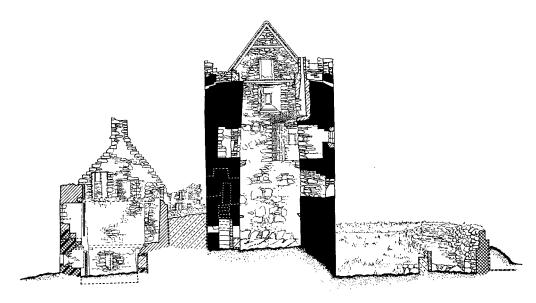


Fig 3 Section and elevation of castle from E to W



Developed Section B.B.

Fig 4 Section and elevation of castle from S to N

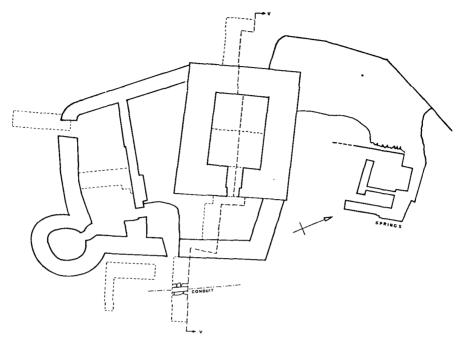


Fig. 5 Key-plan of excavations, 1965-8

presumably having been obtained by means of a timber forestair. The courtyard infilling comprises clean sand topped with a layer of small boulders 1 ft to 1 ft 6 in deep, which forms a platform approximately 2 ft below the level of the curtain wall-walk. Subsequent deposition has covered both this platform and the wall-walk. It proved impracticable to excavate to the base of the sand infilling, but two pilot holes showed that it extended to at least 8 ft below the level of the wall-walk.

There are no window-openings in the ground-floor chamber of the tower, which was presumably a store-cellar. The N wall incorporates two aumbries, while about midway along the N and S walls, and at a height of about 1 ft above threshold-level, there are opposed socketholes evidently designed to house a stout timber beam. The purpose of this beam is uncertain, but it may have carried a framework supporting a brazier-hearth on the floor above. Alternatively the sockets may have formed a seating for a mechanism associated with a draw-well now concealed by the debris that fills the lowermost part of the chamber. At the E end of the S wall a lintelled doorway, now partly blocked (pl 15a), formerly gave access to the bottom of the mural staircase. This portion of the stair rose in a straight flight, but the upper treads are now blocked, as is also the window that formerly lit the entrance-landing.

A rudimentary scarcement exists at the base of the E wall at a depth below the threshold varying from 1 ft 9 in to 2 ft 3 in, but this does not extend along the whole length of the wall (pl 14a). A similar scarcement was found at the E end of the N wall. In the SE angle of the chamber at a depth of 3 ft below the threshold there is a hard mortar-fillet, and further traces of a mortar-fillet were found adhering to the E end of the S wall at the same level at other points. Resting on the loose stone infill at the bottom of the tower was found an occupation-layer, approximately 9 in deep and consisting of peaty material interleaved with clay. It contained

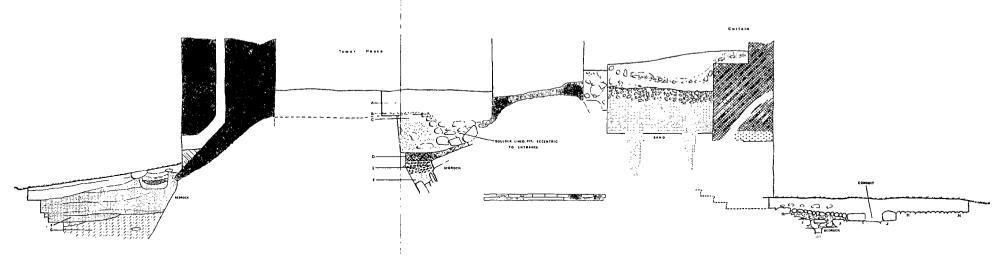


Fig. 6 Section through tower-house and courtyard from W to E

A	C
А	Guano

B Debris, roofing slate, etc.

C Mortary soil
D Occupation deposit

E Loose stones

F Sand

G Silt

H Cobble pavement

J Slab pavement

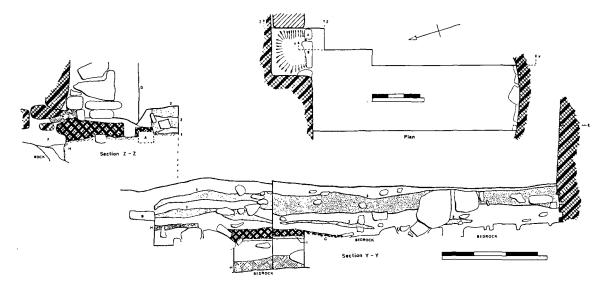
Keys to excavated sections (figs 7 and 9)

Fig 7 A B Curb stones C D Line of wall face E Outer wall F Void from boulder collapsed out of Period I wall G Occupation deposit H Clay 1 15th century mortared floor 2 3 Curb stones C 2 Unshaded strata, apart from bedrock, consist of sterile brown sandy loams.

Fig 9

- A Phase I pebble floor
- B Occupation deposits
- C Large stones (Phase II?)
- D Phase II cobble
- E Dwarf wall reducing size of fireplace
- F Phase III cobble (rounded)
- G Phase III cobble (angular)
- H Base of Phase IV timber post

(Phase IV strata within the Frenchman's House not shown)



Plan and section of courtyard-hall. (For key see p. 162.)

considerable domestic bone refuse as well as sherds etc. If the scarcement supported a poorly made timber floor, the occupation-layer, some 2 ft 6 in beneath, could have been formed by material falling through, but the mortar-fillet is difficult to explain, and there is no apparent support for the floor where it may be thought to have butted against the S wall.

Above the occupation-layer was a deep deposit of mortary soil containing many large boulders and considerable lenses of brown loam. This deposit certainly derived from the late sixteenth-century reconstruction of the tower, and its compacted surface formed a mortar floor to the cellar after this date and sealed the partial blocking of the entrance to the original mural stair. Fragments of a broken Spanish costrel of red micaceous ware were recovered from various levels within the mortary layer. Just inside the entrance, but off-centre and not entirely blocking it, was a shallow, roughly conical pit very crudely lined with boulders. Presumably this was normally kept covered with timber, but its purpose is obscure.

In the original arrangement the first-floor apartment, or lower hall, was lit by tall slitwindows in the N and E walls, but the E window was converted into an entrance-doorway during the late sixteenth-century reconstruction of the tower-house. The N window remains in its original condition, the deeply splayed embrasure being ceiled with a segmental arch and lintelled towards its outer extremity. The E window appears to have been lintelled throughout, but the original arrangement is now obscured by the inserted doorway (pl 14a). The doorway itself was formed by side-posts pegged to a substantial timber lintel, which remains in position, while within the doorway there is provision for a draw-bar.

The floor of the lower hall rested upon timbers supported on roughly formed stone corbels, an arrangement which was repeated in the upper levels of the tower. Neither on this floor, nor on any other, was there any chimneyed fireplace in the original arrangement, and heating was probably provided by braziers. The two socket-holes situated high up in the W wall, and another at the same level in the N wall, may have carried timbers supporting a brazier-hearth at secondfloor level. Towards the W end of the S wall a lintelled doorway gave access to the original mural staircase, which was lit at this level by a slit-window, now much restored. From the stair-landing access is obtained to a garderobe in the SW angle, which is provided with a small window and a vent-shaft discharging at the base of the W wall. The stair itself formerly spiralled upwards to second-floor level, but is now blocked up.

A doorway in the SE corner (pl 14a) gives access to the foot of the turnpike-staircase that was constructed within this angle of the tower in the late sixteenth century, additional space for this purpose having been contrived by bridging the inner re-entrant angle of the main E and S walls. The stair has a diameter of about 3 ft and is roughly constructed, some of the treads being of sandstone and others of local rubble; a number of treads have been restored in timber. There is no attempt at a newel. The jambs of the entrance-doorway have also been restored, but the lintel remains and exhibits a chamfer and dog-tooth moulding (pl 15b). An inserted window in the E wall lights the lowest flight of the stair.

The second-floor apartment, or upper hall, is lit by windows in the N and W walls. The segmental-arched window-embrasures appear to be substantially original, but the daylight-openings have been renewed in the late sixteenth century; the N window-embrasure is ceiled beneath the arch-head with slab-lintels. A narrow doorway in the E wall admits to a small mural chamber lit by two crosslet-loops. In the original arrangement this chamber was probably more extensive than it is today, for it appears to have been curtailed on the S by the inserted mural staircase, and on the N by a wall which may seal off a return in the NE corner of the tower. Alternatively, this N section of the chamber, which was lit by a slit-window in the N wall, may have formed a separate apartment reached directly from the upper hall by means of a doorway situated either in the N wall, or in the E side of the adjacent window-embrasure.

A doorway in the S wall gives access to the former mural stair via a small vestibule.¹ The loose rubble with which the stairway was filled at the end of the sixteenth century has now been removed to show a number of the descending treads. The upwards flight, which appears to have risen spiral-wise to the third floor, is now sealed off. The stair is narrower and steeper than the inserted one in the SE angle and, like this latter, has no newel. A slit-window which formerly lit the stair between second- and third-floor levels can be seen blocked up in the external wall-face. The entrance-doorway giving access to the inserted turnpike-stair at this level is rebated for an inward-opening door, but many of the sandstone rybats have been removed. Between second- and third-floor levels the turnpike-stair incorporates a spacious aumbry in its E wall.

The third-floor apartment is entered from the inserted turnpike-stair through a doorway similar in type to the one immediately below, and is lit by windows in the E and W walls. Originally, however, the chamber was entered from the mural stair at the W end of the S wall, and was lit by windows in the E and N walls. From the original stair-landing access was obtained to a latrine situated towards the S end of the W wall. When the new turnpike-staircase was inserted the mural stair and adjacent latrine were blocked up and a new window constructed in the W wall. The vent-chute that served this latrine remains visible in the external wall-face. At the same time the window in the N wall was blocked up and a shallow-backed fireplace inserted immediately to the E of the former window-embrasure. This fireplace is roughly formed of local stone and has square-cut jambs and a lintelled head. The E window appears to have remained undisturbed at this period, but at some later date the outer sill, and perhaps also the head, of the daylight-opening were raised in height.

The original arrangements at parapet-level are not easy to determine. In all probability, however, the mural stair in the S wall continued upwards to give access to the parapet-walk,

¹ When Boswell and Johnson visited the castle in 1773 this vestibule was being utilised by the Laird of Coll as a prison (Pottle 1936, 266-7).

perhaps terminating in a cap-house at the SW angle. The tower appears to have been covered by a pitched roof surmounting a low garret-chamber entered from the W parapet-walk. Lighting was presumably obtained by means of dormer-windows or roof-lights. The parapet-walk itself was probably much as it is today, being composed of massive slabs of slate laid alternately in ridges and runnels, the latter discharging through the parapet by means of weep-holes. Some of the weep-holes have subsequently been replaced by sandstone drain-spouts, and a number of the slate slabs may likewise have been renewed. The parapet itself seems to have had a thickness of 2 ft 6 in and a height of at least 3 ft. At each end of the W walk the parapet is seen to be offset a few inches, the S offset having perhaps been associated with a cap-house, and the N one with a garderobe, of which the vent-chute, now blocked, is still visible externally (cf also pl 16a.)

During the course of the late sixteenth-century reconstruction of the upperworks the original stair was superseded by the new turnpike-stair in the SE angle, which was carried up to terminate in a cap-house giving access to the S parapet-walk. The upper flight of the stair was lit by means of a window in the E wall, of which considerable traces still remain.

During the early seventeenth-century alterations the garret-chamber was raised about 2 ft in height, low lateral walls being constructed within the thickness of the parapet-walk, and the gables being correspondingly raised. At the same time a lintelled fireplace, having roll-moulded jambs of sandstone, was formed in the E gable. The outline of the earlier gable-heads is clearly visible in the masonry of the W gable-wall (pl 15c), and less clearly at the N end of the E gablewall. At this period, too, the cap-house of the turnpike-stair was remodelled so that it gave access to the E parapet-walk, whence a further flight of roughly formed steps led upwards to a circular look-out stance corbelled out over the stair-head. The stair-head itself was vaulted and a new window was formed in the S wall to replace the earlier one in the E wall, which was now blocked up. Finally, the parapet was partially rebuilt, being raised to a height of about 5 ft and provided with a series of splayed gun-loops. In general this later parapet-wall is thinner than the original one, while along the E side of the tower it is roughly corbelled out from the main wallface. The original garderobe at the NW angle was remodelled at this period, but subsequently fell into disuse and was blocked up. At the NE angle of the parapet-walk there is a rough stone seating, perhaps a shelter for a sentinel.

The curtain-wall and courtyard-buildings

The masonry of the original portions of the curtain-wall is generally similar in character to that of the tower-house, but parts of the outer facework of the E and S curtains incorporate particularly massive boulders. The curtain-wall was harled and it is noticeable that the harling of the W curtain has been keyed to the underlying masonry by means of closely-studded nails. The wall varies in thickness from 3 ft 6 in to 5 ft and in the original arrangement incorporated a parapet-walk situated at an average height of about 11 ft above ground-level. This walk was drained by a series of weep-holes, above which there rose a parapet some 5 ft in height, pierced with alternate crenelles and open slit-embrasures. Most of the weep-holes still remain, while blocked-up crenelles and embrasures can be seen in the N, W and E sections of the curtain. The parapet-walk seems to have been continuous, except at the SE angle, where it was interrupted by the round tower, which was entered at this level only from the E walk. Access to the parapetwalk from within the courtyard was presumably obtained by means of steps, but the position of these is uncertain. The parapet-walk of the W curtain was equipped with a latrine placed close to the junction of the curtain and the SW angle of the tower-house (pl 14b), the vent-chute discharging through the wall below. The two entrance-doorways giving access to the courtyard were provided with draw-bars. The doorway in the E curtain, which was virtually rebuilt by General Stewart, appears to have been equipped with a small squint-window, and may at one time have been surmounted by a commemorative panel (Sinclair 1899, 368-9).

During the late sixteenth-century scheme of reconstruction the parapet was raised in height by between 2 ft and 3 ft on all sides except the S, where it was raised by about 4 ft 6 in. The greater part of the new work is faced with smaller stones than are used in facework elsewhere in the castle. Most of the original parapet-openings were closed up, and new openings were provided in the form of obliquely aligned loops suitable for firearm defence. At the same time box-machicolations were constructed above the two entance-doorways, the one over the E doorway being provided with a peep-hole overlooking the S section of the adjacent curtain-wall. The N parapet and the N section of the E parapet, which together protected the new first-floor entrance to the tower-house, seem to have been manned from timber walks set about 5 ft above the adjacent courtyard-platform, the platform itself being carried up to a height 2 ft below the original parapet-walk. A projecting stone shelf, which may have helped to support this timber walk, can be seen within the NE angle of the courtyard-platform, while a socket-hole visible in the adjacent wall of the tower-house may have served a similar purpose.

The S parapet appears to have been manned from a stone walk set about 3 ft above the original one, and drained by a weep-hole and a sandstone drain-spout which still survive, although now blocked up. Any openings that may have existed in either the earlier or the later parapet in this quarter have been obliterated by the inserted windows of the seventeenth-century dwelling-house. The N section of the W parapet was manned from the adjacent courtyard-platform, the latrine in the NW corner being raised in height and provided with an overhanging vent-chute (pl 14b) to replace the original one, which was now blocked up. This chute collapsed in 1967–8. The arrangements in the S sections of the E and W parapets are not altogether clear, but a blocked-up gun-loop of this period can be seen about midway along the W curtain.

Turning now to the buildings within the S quarter of the courtyard, the original hall appears to have measured internally about 22 ft from E to W by 12 ft 6 in transversely. This building was single-storeyed and its low-pitched roof rose within the surrounding parapet-walk. It was entered from a doorway situated towards the E end of the N wall, and was lit by windows in the N, E and S walls, and perhaps also through the W wall. Of these openings, the double-splayed window in the S wall and the N doorway still survive, the latter having been somewhat altered and restored. The E window, of which the daylight-opening was renewed with sandstone dressings in the sixteenth century, and the N window are now blocked, while any openings that may have existed in the W wall were lost when the wall was demolished. A second doorway, situated in the SE corner, gave access to the ground-floor chamber of the round tower.

Towards the centre of the N wall there was a recess some 5 ft in width of which considerable traces still remain. This recess has the appearance of a fireplace, but excavation showed that occupation-layers, consisting of carbonised material alternating with bands of sandy clay, resting on the lowest of three floors to the hall ran right into it (figs 5 and 7). Thus, the purpose of the recess remains uncertain. Above these occupation layers a very rough floor of crude mortared cobbling had been laid down, while at the same time the recess was restricted in width to approximately 3 ft 6 in and its outer edge delineated by a flimsy row of curb-stones. The third floor, also of poorly mortared cobble, was probably laid down when the late seventeenth-century dwelling-house was erected. At some stage, possibly in recent times, the deposits within the

¹ The original parapet and parapet-walk of the S curtain appear to have been between 1 ft and 2 ft lower than those of the remaining sections of the curtain-wall.

restricted recess and behind the curb-stone, were disturbed by the excavation of a small pit (fig 7).1

In addition to the hall the courtyard may also have contained a small building constructed against the inner face of the N portion of the W curtain. So much at least is suggested by the existence of a blocked-up window situated low down in this section of the curtain-wall. The SW corner of the courtyard, however, appears at first to have been unroofed, but at a comparatively early date the N wall of the hall was extended westwards to meet the inner face of the W curtainwall, thus forming a small entrance-lobby associated with the S doorway to the courtyard. In the W wall of this lobby there is a mural recess, perhaps originally intended as a seat, but which at some later period has been pierced at its base to form a sink-outlet or peep-hole. A doorway in the N wall of the lobby gave access to the courtyard beyond, but this was blocked up when the ground-level was raised in the late sixteenth century. It may have been at this period that the W wall of the hall was demolished, thus increasing its length by the width of the former entrancelobby.

When the seventeenth-century dwelling-house came to be built above the earlier hall and entrance lobby, the S curtain-wall and the S section of the W curtain were again raised in height, the latter being carried up as a chimneyed and crow-stepped gable (pl 16a). The associated parapet-walks, and the box-machicolation above the S courtyard-doorway were built up and new windows were formed at first- and second-floor levels. These new openings, some of which have been restored, were constructed with dressed margins of Carsaig sandstone (Simpson 1941, 34). All the windows appear to have had chamfered arrises, and those in the S wall were barred. The N wall of the dwelling-house was not founded directly upon the N wall of the hall below. but rested partially upon the late sixteenth-century courtyard-platform, thus allowing the building an internal width of 13 ft 6 in. The E gable-wall, of which few traces now remain, appears to have been carried across some 3 ft within the E curtain-wall, giving the building an internal length of about 28 ft. Access to the ground-floor of the dwelling-house (the area formerly occupied by the hall and lobby), was obtained both from the doorway in the S curtain-wall and from the late sixteenth-century stair-lobby associated with the E courtyard-doorway. The first floor was reached by means of the staircase itself, which at this period, at any rate, seems to have risen against the inner face of the E curtain to give access both to the parapet-walk and to a doorway in the E gable-wall of the dwelling-house. An adjacent doorway in the N wall of the dwellinghouse at the same level apparently led to a timber floor spanning the stair-lobby below, and giving access to the courtyard-platforms. The original sixteenth-century arrangement of this staircase is not altogether clear, but it is possible that it gave direct access only to the parapet-walk of the E curtain.

The first floor of the dwelling-house appears to have comprised a single large apartment heated by means of a fireplace situated towards the centre of the N wall. This fireplace has been very much restored, but appears originally to have been lintelled beneath a relieving-arch. To the W of the fireplace a window, also much restored, looks out over the adjacent courtyardplatform. The second floor was probably entered by means of a doorway and associated forestair

¹ Dr Simpson (1941, 45) mentions that this recess had been converted into a kind of bin by building a low wall across it, and the wall may be seen in a photograph in the office of Ian Lindsay and Partners, Architects, Edinburgh. This feature had entirely disappeared by the summer of 1965, however, and the evidence is that the low wall was un-mortared and rested either on the third mortared cobblefloor or on debris accumulated above it.

at the E end of the N wall; there is a fireplace in the W gable-wall, and there may have been another in the missing E gable-wall. A staircase or ladder in the SE corner apparently led upwards to the parapet-walk of the adjacent round tower.

The flanking-tower

This tower (pl 13a) is contemporary with the curtain-wall and its masonry is of similar character, except inasmuch as the plan-form has imposed limitations upon the size of stone selected for the facework. Although generally circular on plan the tower is very irregular, particularly at its upper levels (cf fig 1); the walls show a pronounced batter at base. The tower rises to a height of two storeys and is surmounted by a parapet 5 ft 3 in in height, of which the coping is about 29 ft above ground-level. The flat-topped roof is drained by roughly formed weep-holes similar to those seen in the adjacent curtain-walls, and at the same level there is a series of three canted machicolations. The parapet itself is pierced by splayed embrasures, one of which overlooks the parapet-walk of the E curtain.

In the original arrangement the ground-floor chamber was entered by means of a doorway at the SE corner of the hall. This doorway was equipped with a draw-bar and there is an aumbry in the E jamb. The apartment is lit by two slit-windows which enfilade the E and S curtain-walls. At first-floor level the interior of the tower becomes rectangular on plan. This apartment was entered from the parapet-walk of the E curtain, and in the re-entrant angle between the curtain

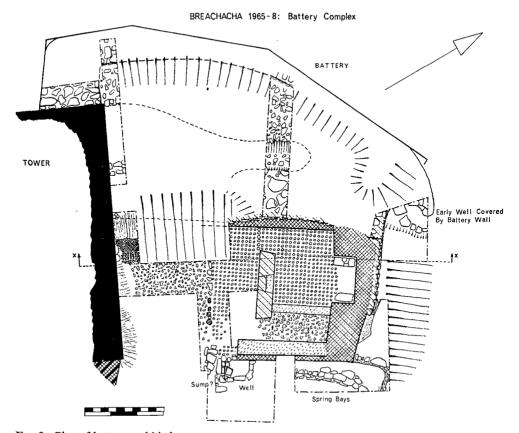


Fig. 8 Plan of battery and kitchen

and the tower there is a well-preserved garderobe supported on stone corbels. The doorway into the tower was secured by a draw-bar. The apartment within is barrel-vaulted, but the floor was of timber supported upon rough stone corbels. This was a dwelling-room and there is a lintelled fireplace in the W wall and windows in the E and S walls; all these openings are well formed with carefully selected slabs and boulders of local rock. The fireplace-chimney rises to parapet-level within the haunch of the vault. A hatch formed in the N apex of the vault allowed access to the parapet-walk by means of a ladder, while a second means of entry to this level was provided by means of a narrow doorway on the NW side of the tower, from which a ladder could have been lowered to the parapet-walk of the S curtain. Latterly this doorway communicated with the second floor of the seventeenth-century dwelling-house.

Kitchen and battery

Immediately to the N of the tower-house there is a polygonal outwork embracing a much altered, rectangular, single-storeyed building which incorporates a substantial fireplace. This outwork (pl 16b) can be identified as an artillery-battery, and it has been established that it post-dates the earliest phase of the rectangular building (figs 1 and 8).

In view of the large terminal fireplace (pl 15d) and the proximity of a water-supply the rectangular building probably originally functioned as a kitchen. This interpretation raises certain difficulties, however, since there is no convenient access either to the tower-house or to the courtvard-buildings. Possibly the situation of the kitchen was determined partly by the position of the water-supply and partly by the fact that the ground on the remaining sides of the castle was subject to flooding. The kitchen, together with other ancillary buildings now vanished or buried by sand, probably stood within an outer enclosure of earth and timber such as is known to have existed at the end of the sixteenth century (infra, p 173).

Excavation within and around the kitchen (figs 5, 8 and 9) was hampered by the water-table but the relative chronology of the structure was established.

Kitchen-building, Phase I. The masonry of the kitchen is generally similar in character to that of the tower-house and curtain-wall, the facework incorporating many large slabs set on edge and roughly brought to courses by the generous use of pinnings. The building was 14 ft 3 in wide internally and the E wall was approximately 2 ft 6 in thick. The fireplace was 6 ft wide by 2 ft 9 in deep, the N wall of the kitchen being thickened to accommodate it. The length of the kitchen has not been determined except by inference. The E wall is aligned exactly on the E corner of the tower-house and the W wall aligns on a boss of rock which projects below the wall of the tower. Adjacent to this boss of rock an occupation-layer was exposed beneath later cobbling. Hence it may be inferred that the kitchen extended as far as the tower and abutted upon it, giving a length of 27 ft 9 in on the W side and 25 ft 9 in on the E. There are no traces of the kitchen to be seen on the N wall of the tower-house, however, and it is probable that the tower was re-harled after the demolition or collapse of the kitchen (infra, p 170).

The hearth was living rock, and in front of it an occupation-layer covered the sloping surface of the rock. At the other end of the kitchen the occupation-layer rested on a pebble floor laid over waterlogged silt or sand. The water-level here prevented satisfactory excavation. To the E of the fireplace the corner of the building rested partly over a spring. Boulders had been packed into the top of the clay alongside the spring as a foundation for the wall, and a dry-stone wall built around the spring to form a polygonal 'well-chamber'. To the S of this, a small rectangular well (pl 17c), also spring-fed, and approached by small rough steps, was built against the E wall of the kitchen. The original doorway to the kitchen presumably lay close by.

Kitchen-building, Phase II. Before the battery was constructed the kitchen had either been

slighted or had been allowed to become derelict. That there was some considerable interval between this dereliction of the kitchen and the construction of the battery is indicated by the fact that the harling of the tower is sealed by the battery (pl 17a). This harling, although only partially preserved today, except where protected by the battery, appears to have been applied after the collapse of the kitchen. It is not unreasonable to suppose that the tower would have been re-harled after its reconstruction and that the damage to the kitchen took place before this. The fresh nature of the harling, where preserved by the battery, suggests that the interval before the construction of the battery is unlikely to have been of more than a few decades.

The second phase of construction of the kitchen-building is contemporary with the erection of the battery. The W wall of the kitchen was reduced to a low plinth which formed the base of the rear wall of the battery. The N end of the wall was reduced to approximately the same level and a gable for a lean-to roof placed upon it. A low wall, with two doorways with a splayed window between, was built across the kitchen, thus forming a single-roomed hut connected, presumably, with the functioning of the battery. Excavation in front of the fireplace showed that at this time there was a floor of large cobbles (pl 17b), which sealed the Phase I occupation layer. To the E of the fireplace both this floor and the earlier occupation-layer could not be identified because of disturbance over the soft clay adjacent to the spring.

The outer face of the N wall had fallen away except at the NE corner, and this wall was refaced in similar style to the rear retaining-wall of the battery. This masonry is crude, irregular and badly pointed. The re-facing to the fireplace-wall is offset from what remains of the original wall-face.

At some stage the polygonal well-chamber became silted up. The silting was partially removed and an elliptical dry-stone walled bay constructed within it. The elliptical bay partially collapsed outwards into the soft silt of the polygonal bay before it also became silted up. The silting of the polygonal bay contained a sherd of sixteenth-seventeenth-century French polychrome ware. The elliptical bay may belong to Phase II of the kitchen-building: alternatively it could be contemporary with the construction of the late seventeenth-century dwelling-house in the castlecourtyard.

Kitchen-building, Phase III. The hut was divided into two unequal chambers by a stone partition and the splayed window was blocked up. A neat pavement of carefully selected round cobbles (pl 17b) was provided for the larger chamber and this payement extended outside the hut as an apron. The rest of the space between the hut, the battery and the tower was given a pavement of angular cobbles which extended into the smaller chamber. This smaller chamber was probably a privy. The hearth-area of the fireplace was, at the same time, reduced by the construction of two dwarf walls, one at each side. Presumably this was the state of the hut when it was visited by Dr Johnson and James Boswell in 1773 (Pottle 1936, 267-8). Johnson 'gave some charity' to a family who lived in the larger room which measured 9 ft 6 in by 7 ft 4 in. The hut was then known as Teigh Franchich, i.e. the Frenchman's House, but the family, apparently, were Scots.

The neat cobbled floor was set in loose mortary sand resting on the Phase II pavement. There seems little reason for the provision of a new pavement unless a rising water-level had made it necessary.

The rectangular well (pl 17c) had become choked with rubble. The top of the steps which had entered it was crossed by a covered drain which led from the corner of the cobble apron to what appeared to be a sump a few feet SW of the rectangular well. This feature could not be investigated fully because of lack of time, but may be evidence of a further rise in water-level in wet seasons. This could have been occasioned by the run-off from the spring becoming choked.

At the presumed SW corner of the old kitchen-building, the angular cobbling overlay the Phase I occupation-layer, but was not preserved right into the corner of the kitchen.

Kitchen-building, Phase IV. After soil had accumulated over the cobble pavement of the living-room of the Frenchman's House, this room was utilised as a byre and three stalls made with loose brick floors.

The battery

The outer wall of the battery (pl 13b) is neatly made, using the same technique as the curtain and the tower-house, but displaying noticeably less variation in stone-size. The faces to the field are well mortared and join at oblique angles except for the abrupt right-angled return to the tower-house.

Excavation (figs 5, 8 and 9) showed that the rear of the battery-wall, which varies in thickness, was clay-bound (pl 17a). It appears that the thick clay-bonded wall was built first and the

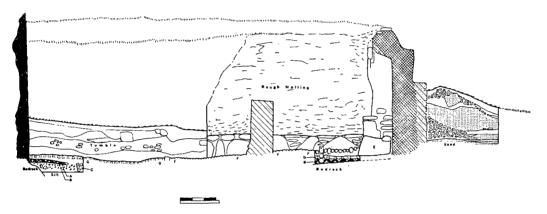


Fig. 9 Section x-x through kitchen from S to N (For key see p 162.)

mortared facing and parapet applied to it. The upper levels of the body of the battery were of earth, capped with a layer of boulders. The boulder-layer was irregular and did not provide anything resembling a pavement. The layer was interrupted by a shallow ditch (partly traceable as a vegetation mark at the end of the dry summer of 1968) which widened towards the tower to a broad depression (fig 8). A gunner standing in the ditch would have only his head and shoulders above the parapet of the battery. There is no evidence that the parapet was ever higher than it is today, namely about 2 ft; the width of the parapet seems to vary from about 2 ft 6 in to 4 ft 3 in.

The E end of the battery-wall appears to 'fade away'. Excavation here showed that a substantial part of the battery-wall lies buried. The clay-bonded inner wall ends neatly, but was apparently never here given a mortar-face. This clay-bonded wall is linked to the re-facing of the fireplace, the linking being in dry-stone masonry.

The contrast between the re-facing to the fireplace and the neatly mortared facing of the battery suggests that the battery-wall was originally intended to continue behind the fireplace, and that the space between it and the re-facing was to have been filled in. For some reason the work was curtailed and the parapet of the battery returned to exclude the unfinished end.

Excavation showed that the clay-bonded battery-wall partly covered a circular setting of boulders placed in a trench running N-S. Due to the depth of the trench (a restriction on trench depth had to be imposed for insurance reasons) and the pressure of water this feature could not

be completely excavated, but the boulder setting appeared to be the top of a wall, and was probably another water-hole or spring. The outflow from this spring would have passed to the W of the castle.

The re-entrant space, above the blocked well, between the fireplace and the end of the battery-wall, had been deliberately filled in. At the bottom there were layers of loam and sand and above this a sandy deposit containing coprolites. This was covered by a substantial layer of boulders. Blown sand had accumulated above the boulders, and in this there was a layer of collapse from the chimney as well as a number of turf-lines. Rabbit-burrowing had complicated the stratification throughout.

It is probable that the battery was intended to embrace a vaulted chamber based on the N end of the former kitchen. Both the E and the W walls of the kitchen had been reduced to an approximately level plinth and could have acted as the haunches of a vault. The very rough nature of the wall to the W of the kitchen, which retains the earth of the battery, provides supporting evidence for this thesis for it is unlikely that this rough walling was intended to be visible. Such an arrangement as that here suggested is closely paralleled at Brodick Castle (infra p 177).

The eastern apron

Excavation outside the E entrance to the courtyard showed that there was here a wellmade pavement of large cobbles crossed by an open conduit (pl 17d). This pavement overlay an earlier slab-pavement which also formed the base of the conduit. Sealed between the two pavements were found two small sherds of late seventeenth-century Westerwald stoneware. The upper pavement can be placed as being contemporary with the dwelling-house within the courtyard and its associated vestibule and stairwell. It extended, although not at full width, as far S as the flanking-tower, where it was directly beneath the corbelled latrine. To the SE of the pavement, in line with the open conduit, a waterlogged area was partially excavated and produced a certain amount of wood and fragments of shoes (infra pp 180, 185).

An attempt to examine the stratigraphy below the lower pavement failed because of the water-level.

There was no cobble-payement outside the door in the S curtain corresponding to the later one to the E. Outside this entrance a rough pavement of large boulders sloped down from the threshold for approximately 10 ft.

Exterior to the west

The land immediately to the W of the castle rises slowly from a low 'cliff' in the blown sand at the back of the beach. This ground is marshy during wet seasons, but behind it firm machair rises more steeply to the bench on which the new castle stands.

A small trench cut immediately W of the latrine-chute at the base of the tower-house showed that the land-surface here had risen, as the result of deposition of blown sand, approximately 2 ft in the last two centuries. Below this, waterlogged deposits were capped by considerable quantities of heather.

It seems probable that in medieval times there was an inlet of the sea which came up to the castle walls on this side, at least at high spring-tides. This would accord with the late sixteenthcentury description quoted below (p 173).

HISTORY

During the thirteenth century Coll formed part of the MacDougall lordship of Lorn, but following the defeat and forfeiture of Alexander of Lorn and his son by Robert I in the early

fourteenth century the island, together with other extensive territories, was granted to Angus Og of Islay (Gregory 1881, 24; Duncan and Brown 1957, 205-6). By the terms of an indenture made between John of Islay and John of Lorn in 1354 Coll reverted to the MacDougalls, but the MacDonalds evidently continued to exercise certain rights of superiority (MacDonald 1950, 160; MacPhail 1914, 75-8). Some timeduring the second quarter of the fifteenth century Alexander, Lord of the Isles, granted the island to John Garbh, son of Lachlan Lubanach of Duart, and founder of the family of MacLean of Coll, (Gregory 1881, 71; RMS, iii (1513-46), no. 712).

During the second half of the sixteenth century a feud developed between the MacLeans of Coll and the MacLeans of Duart and in 1578 Lachlan MacLean of Duart is known to have captured and garrisoned the castle (RPC, iii (1578-85), 132-3). A similar incident occurred following the death of Hector MacLean, 5th of Coll, in 1593 (Sinclair 1899, 370-1), when it was reported that the MacLeans of Duart had seized the 'castell of Bretach; quhilk house thay intend to dimoleis and cast down'. The castle was not recovered until about the end of the year 1596 (RPC, v (1592-9), 354; Gregory 1881, 269-70).

An anonymous account of the Western Isles written between 1577 and 1595 contains an interesting description of Coll and its castle 'quhilk is ane great strenth be reason of the situation thairof verie neir to the sea, quhilk defendis the half thairof, and hes three walls about the rest of the castell, and (?ane) thairof biggit with lyme and stane, with sundrie gude devises for defending of the tower. Ane uther wall about that, within the quhilk schippis and boittis are drawin and salvit. And the third and the uttermost wall of tymber and earth, within the quhilk the haill gudes of the cuntrie are keipit in tyme of troubles or weiris' (Skene 1876–80, iii, 436–7).

During the third quarter of the seventeenth century the MacLeans were in dispute with the Campbells and in 1679 Donald MacLean of Coll garrisoned the castle against Archibald, 9th Earl of Argyll, for a short time, afterwards surrendering upon terms (*Hist. MSS. Comm.*, 6th Report Appendix, 622, 632–3).² Donald's son, Hector, 13th of Coll, built the new house of Breachacha, and it was there that Boswell and Johnson were entertained prior to their inspection of the castle in October 1773. The MacLeans retained possession of Coll until 1856, when it was sold to John Stewart of Glenbuckie and Lorn (Simpson 1941, 28).

DISCUSSION

Chronology

Although the castle has generally been ascribed to the fourteenth century (MacGibbon and Ross 1887–92, iii, 119; Beveridge 1903, 55; Simpson 1941, 52), it is now suggested that a date in the second quarter of the fifteenth century is equally acceptable on architectural grounds and is to be preferred on historical grounds.

The architectural evidence is admittedly sparse, for the intractable nature of the building materials employed, and the consequent absence of original dressings and mouldings, make it difficult to base any conclusions upon stylistic analysis, while the general form of the structure can be paralleled elsewhere in Scotland throughout the Middle Ages. Nevertheless, the towerhouse at Breachacha is uncharacteristic in that it is unvaulted and lacks original mural fireplaces, features that might be considered primitive and thus indicative of early date. Unvaulted towerhouses seem to be relatively more common in the Western Isles than in most other parts of

<sup>Cf the detailed account of this episode given in Simpson 1941, 29.
Cf the detailed account given in Simpson 1941, 31.</sup>

Scotland, however,¹ and it is possible that this particular feature has no chronological significance but results from a difficulty in obtaining local supplies of rubble-slabs suitable for barrel-vaulting. Certainly the building-stone available on Coll does not lend itself to this type of construction, while timber floor-joists could have been imported from the mainland without undue difficulty or expense. The absence of original mural fireplaces is more remarkable, but may likewise have been due to the peculiarity of local conditions, and in particular to the difficulty of obtaining adequate supplies of firewood on an almost treeless island. The main fuel on Coll was no doubt peat, and this may have been burnt in a brazier standing on a stone hearth in the middle of the floor. The castles of Kiessimul and Sinclair on the adjacent island of Barra are similarly unprovided, and the fact that numerous Irish tower-houses, as first built, had no regular fireplaces or chimneys (Leask 1951, 93), may perhaps be explained in the same way.

It has already been pointed out that the tower-house at Kiessiemul shares two of the main pecularities observable at Breachacha, namely the absence of vaults and fireplaces; and a detailed comparison of the two buildings reveals other similarities (fig 10). Both are constructed without the use of freestone dressings and incorporate narrow mural stairs and a number of mural chambers. Moreover, the two towers have almost identical overall dimensions (Breachacha 32 ft 6 in by 28 ft; Kiessiemul, 31 ft 9 in by 29 ft), and each was conceived as the nucleus of a small courtyard castle incorporating a compact group of domestic buildings enclosed by a strong curtain-wall having an associated angle-tower placed diagonally opposite to the tower-house itself. Lastly, it may be noted that in each case the curtain-wall appears to have been constructed as part of the same scheme of building operations as the tower-house, but without any attempt having been made at structural integration by the use of bond-stones.

These similarities strongly suggest that Breachacha and Kiessiemul are contemporary, and that a single designer was responsible for the initial lay-outs of both castles. Unfortunately the absence of readily dateable stylistic features is as marked at Kiessiemul as it is at Breachacha, and the castle has been variously ascribed to the twelfth, thirteenth and fifteenth centuries, while opposing views have been taken of the chronological relationship between the tower-house and the courtyard. (MacGibbon and Ross 1887–92, iii, 51–6; RCAHM (Hebrides) 1928, no. 439; Mackenzie 1927, 163; Cruden 1963, 45; Simpson 1967, 162–3). This is not the place to attempt a fresh analysis of the castle, but it should be pointed out that survey operations carried out by the Royal Commission on Ancient Monuments in 1967–8 have shown that the put-log holes for timber parapet-walks and hourds, whose existence has been taken as conclusive evidence of the early medieval date of the castle (Cruden 1963, 45; Simpson 1967, 162–3), are in fact of secondary construction and that the original parapet-walks were not of this type. In the opinion of the joint-authors of this report none of the existing buildings at Kiessiemul need be ascribed to a date earlier than the fifteenth century on architectural grounds.

Turning now to a consideration of the historical evidence it may be observed that Breachacha Castle does not come on record until 1542, when it is referred to as the 'castle of Coll' in a charter granted by James V to John MacLean, 3rd of Coll (RMS, III (1513–46), no. 2787). In view of the paucity of early record material relating to the Hebrides, however, little importance is to be attached to this date. The omission of any reference to the castle (and likewise to Kiessiemul) in Fordun's list of island strongholds (Fordun, Book 2, chap. 10), compiled sometime during the second half of the fourteenth century, (fig 11) is more significant, however, for this list seems in other respects to be reliable, providing a fairly complete record of castles then existing in the Western Isles. It is also noteworthy that in the indenture of 1354 between John

² E.g. Castle Maol and Caisteal Uisdein, Skye, and Kiessimul and Sinclair, Barra.

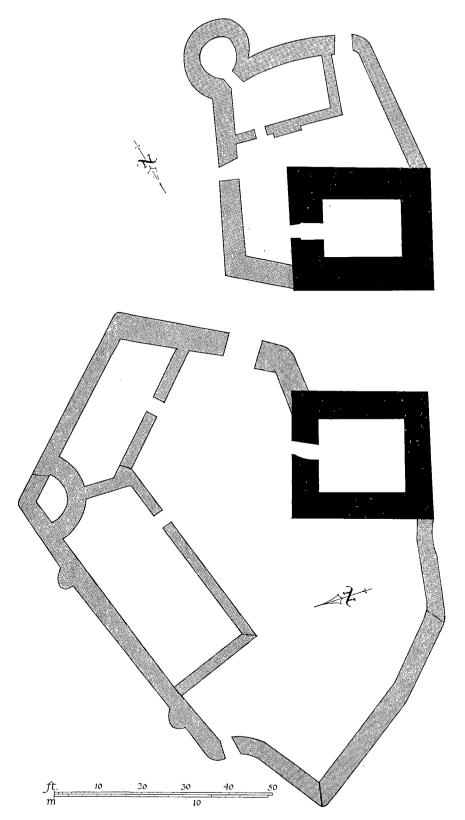


Fig 10 Comparative sketch-plans (partially reconstructed) of Breachacha Castle and Kiessimul Castle

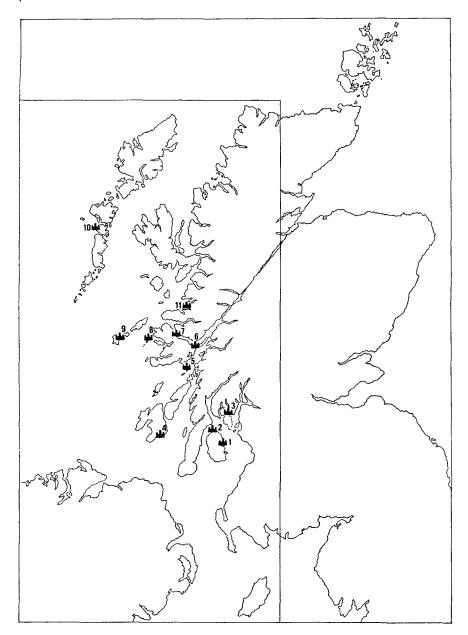


Fig 11 The castles of the Western Isles as recorded by Fordun. 1 Brodick, 2 Lochranza, 3 Rothesay, 4 Dunyvaig, 5 Dun Chonnuill, 6 Duart, 7 Aros, 8 Cairn na Burgh More, 9 Tiree, 10 Borve, 11 Tioram

of Islay and John of Lorn by which Coll was restored to the MacDougalls (MacPhail 1914, 75-8), great importance was attached to the possession of the castle of Cairnburghmore (mentioned by Fordun), in the nearby Treshnish Islands, but no reference is made to any castle on Coll itself. MacDougall hostages were to be retained by John of Islay until he recovered Cairnburghmore into his own hands, and John undertook never to grant the castle to any of the name of the clan 'Fynwyne', who were enemies of the MacDougalls. The inference is that in 1354 Cairnburghmore was regarded as the key to this part of the Western Isles, and that there was no castle on Coll.

The local political situation changed markedly, however, when the MacLeans established themselves on Coll sometime during the second quarter of the fifteenth century, and the possession of a suitable castle on the island is likely to have been regarded as a prime necessity by the incoming family. It is reasonable to suggest, therefore, that Breachacha was erected at this time. It so happens that the establishment of the MacNeils on the island of Barra is generally regarded as deriving from a charter granted by Alexander, Lord of the Isles, to Gilleonan MacNeil in 1427 (RMS, II (1424-1513), no. 2287), so that the erection of Kiessiemul Castle may likewise be ascribed to the same period with some plausibility, a conclusion which fully accords with the architectural evidence already considered indicating that the two castles are contemporary. Moreover, the MacLeans and the MacNeils, although sometimes at enmity with each other, were closely connected by marriage. Political, as well as geographical, considerations, therefore, favour the probability that both families engaged the same designer for their respective castles.

The major reconstruction of the tower-house and the associated raising of the curtain-wall can be dated to about the end of the sixteenth century by the imported Spanish vessel (p 184) and by the dogtooth moulding on the lintel of the inserted stair. This moulding may be compared with similar ornament at Dundarave (1596), Haggs (1585), and Maclellan's House and Tomb, Kirkcudbright (1582 and 1597). Moreover, this reconstruction was evidently carried out before the castle was visited by the writer of the 1577-95 account (supra p 173), for the phrase 'sundrie gude devises' is hardly one that could have been applied before the construction of the machicolations and the raising of the parapet.

Since the Duart MacLeans occupied Breachacha from the death of Hector of Coll in 1593 until c 1596, it can be implied that the reconstruction was virtually complete by 1593. If the Spanish costrel arrived in Coll as a result of the dispersal of the Spanish Armada and foundering of many of its ships in 1588, then the dating of the reconstruction of the tower-house, at least, can be further confined to the period 1588-93. The active feuding between Coll and Duart at this time would make major reconstruction difficult, but Breachacha was occupied and garrisoned by Lachlan MacLean of Duart in 1578 and it is not improbable that damage caused during this unsympathetic occupation necessitated some reconstruction.

Dr Simpson (1941, 49) equated the battery with the second wall mentioned in the 1577-95 account, i.e. the refuge for ships, but this is unconvincing because he did not, at the time of his paper, realise its true character. In fact the sixteenth-century account implies that only the inner curtain was of stone and lime. It seems more likely that the battery was not erected until after the account was written. This fits in well with a general pattern of development in which the castle was strengthened firstly by the reconstruction of the tower-house and inner curtain (in about 1588-93), and secondly by the addition of an artillery-defence on the vulnerable landward side at about the beginning of the seventeenth century. Differences in the masonry of the reconstructed tower-house and curtain on the one hand, and of the battery on the other, make it unlikely that both operations were carried out at the same time. The battery may be compared with the artillery defences at Brodick Castle, Arran, and Whittingehame Castle, East Lothian.

The final reconstruction of the upperworks of the tower may well have been carried out soon after the MacLeans of Coll recovered the castle in 1596 in order to make good damage done by the MacLeans of Duart, who are known to have threatened to demolish the place during their occupation of it in 1593-6 (supra p 173). Indeed, it is possible that the 1588-93 reconstruction had not quite been completed, and that the final work on the tower-head represents a continuation of the earlier building-operations. This work was probably carried out at about the same time as the construction of the battery.

The late dwelling-house in the courtyard cannot be closely dated. Its erection detracted from the defensive character of the castle, however, which probably implies that it took place after the dispute between the MacLeans of Coll and the Earl of Argyll which ended in 1679. The dwelling-house is contemporary with the final modifications to the open stair-well in the courtyard and is probably contemporary with the final phase of the pavement outside the E entrance. This pavement sealed two minute fragments of Westerwald stoneware of late seventeenthcentury date (p 185).

APPENDIX I

Ecological material

A. ANIMAL BONE. (By R Harcourt, Byms, MRCVS)

Introduction

In view of the relatively short time-span of the material from this site, the apparent similarity of size and type throughout for each species, and the small size of the total collection, the material from the pre-1600 deposits has all been amalgamated into one group.

The extremities of bones were measured across articular surfaces only. No attempt has been made to express any ages in years because it is the writer's belief that, in the absence of reliable evidence of how fast earlier animals matured, any such attempt gives a spurious impression of precision. There is no doubt however that certain teeth in a particular species erupt later than others and that certain long bone epiphyses fuse early, some at an intermediate stage and others later in life. This latter sequence is very similar for all species and thus, with these criteria, it is possible to arrive at an age-group system which divides a given population into juvenile, young adult and fully matured or old.

Description of Material

All the usual domestic animals are present; cattle, sheep, goat, pig, horse, dog and domestic fowl. Remains of fox, whale, a small dolphin, fish and molluscs were also identified. The total number of identifiable specimens was about 300 and the minimum numbers of the main species represented were: sheep, 20; cattle, 10; and pig, 3. The weight-ratio of cattle to sheep in any stock population, excluding extremes, is, in the writer's experience, about 10:1, both for advanced selected stock and for primitive unselected. It is thus evident that most of the meat eaten on this site was beef,

Sheep

The dimension of all the measurable bones are shown in Table 1. It can be seen that these animals were small and slender with bones closely resembling those of the Soay. This type of sheep, referring to body-dimensions not wool, occurs with little alteration throughout the archaeological record both in Scotland (Ryder 1968, 127) and England.

Cattle

The bovid remains were much more fragmentary than those of sheep and only one bone was measurable. This was a metacarpal which had the dimensions:

The estimated height is 108 cm, or 43 in (Fock 1966), a very small animal.

Other domestic species

Bones of horses, pig, dog and domestic fowl were identified, but were too few to merit special comment. The only specimen of goat identified with certainty was the distal half of a metacarpal.

TABLE 1 MEASUREMENTS OF SHEEP LONG BONES

	tl.	pw.	msd.	dw.	$\frac{\text{msd.}\%}{\text{tl.}}$	Height at shoulders	
		(dime:	cm	in			
Humerus	114		13	25	11.4		_
	-	_	_	24-26(7)	_	_	_
Radius	130	25	14	20	10.8	_	
	143	27	16	24	16.8	_	_
	_		_	28(1)	_	_	_
Femur	156	_	13	3 2	8.35	_	_
	161	_	18	_	11.2		_
Metacarpal	107	18	12	22	11.2	52	21
Metatarsal	125	18	10	21	8.0	58	23
	125	17	12	19	9.6	58	23

tl. = total length; pw. = proximal width; dw. = distal width; msd = midshaft diameter; msd%=m.s.d. as percentage of total length. Figures in brackets

indicate the number of specimens measured. To estimate the height, the tl. of metacarpal is multiplied by 4.86, and that of metatarsal by 4.68. The result is only approximate (Tsalkin, V I (1961, Cited in Ryder 1969, 49).

Wild mammals

Fox was represented by a radius and ulna, both complete. In view of the presence of dog on this site and the apparent absence of fox from the fauna of many of the Scottish Islands, this identification was checked with particular care because the long bones of a male fox can be confused with those of some terrier-type dogs. The marine-mammal remains consisted of three fused cervical vertebrae of a small delphinid and a portion of bone, probably from the jaw of a whale, but this last identification is not absolutely certain.

Age at death of cattle and sheep

The specimens from fully mature animals outnumbered the combined total of those from young adults and juveniles. This reflects a pattern which appears consistently in nearly all periods and suggests that the slaughtered animals were killed only when, for some reason or another, they were no longer more valuable alive than dead. A possible explanation for the bones of some of the younger animals is that they were from cases of natural death. There is no reason to doubt that the meat in such cases was eaten more often than not. This possibility is too often forgotten.

At a time when wool-production was the main purpose of keeping sheep and when cattle, both oxen and cows, were the motive power for ploughing (Trow-Smith 1957), it is self-evident that to kill young animals would be lunacy. It is probable in all periods, and known for the medieval (Trow-Smith 1957) that farm-stock matured slowly and that losses from disease were, from time to time, high. This would inevitably mean that stockmen would not often have dared to take the risk of killing beasts other than those, already referred to, that had reached the end of their usefulness. To do so would have jeopardised the vital breeding-stock or reduced the number of steers available for essential ploughing and of ewes and wethers for wool production. In addition to the fact that there is no literary evidence for the practice (Trow-Smith 1957), these considerations show that the so-called 'autumn killing', unfortunately firmly entrenched in popular mythology, cannot ever have occurred. The slaughter of a few older cattle and sheep carefully fattened during the last summer and autumn of their useful life is not the same thing at all.

Acknowledgments

I am indepted to Miss Judith E King for confirming the identity of the fox-bones and to her and Dr F C Fraser, both formerly of the British Museum (Natural History), for examining the dolphinand whale-specimens.

B. FISH

A number of fish-bones recovered from the pre-1600 deposits were examined by Dr K E Banister of the British Museum (Natural History). The only positively identifiable bones were cod but there appeared to be some non-cod bones from the early deposit in the courtyard house which could not be certainly identified.

C. UNWORKED WOOD

Fragments of unworked wood from waterlogged deposits have been identified by the staff of the Royal Botanic Gardens, Kew. From deposits c 1700 (peaty deposit outside the cobble-apron E of the curtain, and the garderobe-deposit W of the tower-house) the following species were identified: Ouercus (oak), sp. of robur type; Pinus (Scots pine), of sylvestris type; Alnus glutinosa (alder); Larix (larch sp. or Picea (spruce) sp.; Betula (birch) sp.; Prunus of avium (bird cherry) type; Fraxinus excelsior (ash); and nut shells of Carylus avellana (hazel). From the only deposit firmly datable to before the late 16th century which produced samples, the only species identified were: Quercus of robur type (the bulk of the sample), Betula sp.; Pinus of sylvestris type; and Larix sp. or Picea sp.

Mr C E Hubbard, of the Royal Botanical Gardens, writes: 'The Trees represented in the samples as unworked wood are species which grow readily in Scotland. They could have grown on Coll before extensive clearance was carried out.'

Most of the specimens were from small branches of a size unlikely to have been imported into Coll for building-timber. It is known from Boswell's account that there were virtually no trees on the island by 1773, but this discovery of unworked small branches in deposits that could not be much, if any, earlier than 1700 suggests that clearance could not have taken place much before that date.

APPENDIX II

Finds

A. BUILDING-STONE

Sandstone

Sandstone was widely used for the margins of windows during the late sixteenth-century reconstruction and later.

BS1. Worn fragment of rybat with simple roll-moulding (not illustrated). Submitted to Mr F G Dimes, BSc, of the Institute of Geological Sciences, who writes:

'The specimen does not match examples of Carsaig stone, which was formerly quarried at Carsaig, South-West Mull, in the Institute's collection. Nevertheless, I feel that it may be assigned to Carsaig stone, for the stone is very variable and it would be difficult to suggest any other provenance for it. According to tradition the old sandstone-quarries near the Nun's pass, west of Carsaig, supplied stone used in ecclesiastical buildings. The stone is of Scalpa Beds, Middle Lias, Jurassic in age.'

Roofing slate

Fragments of roofing-slates were numerous in the superficial deposits. They contained the matrices of iron pyrites crystals similar to those found in slate from Easdale and Luing. The shape was usually sub-rectangular, the upper end being pointed. Many of the slates retain the corroded ends of their iron fixing-nails. The longest example found was $11\frac{1}{2}$ in long by $4\frac{3}{4}$ in wide by approximately $\frac{7}{16}$ in thick. The only slates which compared with Boswell's description (Simpson 1941, 42n) were the large slate slabs used on the wall-walk at the top of the tower-house.

An example of the slate was examined by Mr Dimes, who writes:

'The obvious localities for the slate are Ballachulish and Easdale. These two places are on the same slate belt and the black carbonaceous slate with pyrites of Ballachulish extended through to the Oban district. The slate is very fine-grained, blue-black or black, and the beds vary slightly in colour and grain. The chief differences are noticed in variations in the quantity of pyrites which occurs most often as $\frac{1}{16}$ in to $\frac{1}{4}$ in cubes. It is stated that roofing slates from the islands of Easdale have been worked for 300 years. I do not think it is possible absolutely to differentiate between Ballachulish and Easdale Slate, but, from close comparison with specimens in the Institute's collection, I think the Breachacha specimen is comparable with Ballachulish slate.'

B. STONE OBJECTS (fig 12)

Worked flint

A number of fragments of flint were found, some of which had certainly been deliberately struck. These were found almost exclusively in the occupation layers sealed at the base of the tower-house.

- S.1 Thumb scraper. From reconstruction layer at the base of the tower-house.
- S.2-4 Three pieces of worked flint each with a heavily worn edge. Possibly crude strike-a-lights. From occupation layer at the bottom of the tower-house.

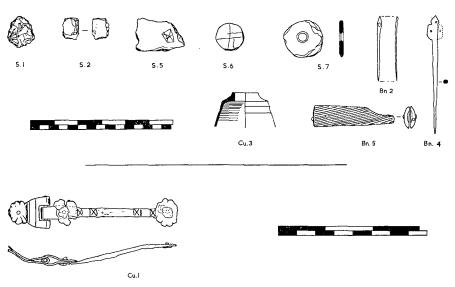


Fig 12 1965-8 excavations: small finds

Worked Slate

- S.5 Small fragment of slate with incised 'doodle'. From occupation layer at the bottom of the tower-house.
- S.6 Incised disc, approx. $1\frac{3}{16}$ in diameter. Wedged into SE wall of the tower-house at the level of the reconstruction layer.
 - S.7 Spindle-whorl. From earth make-up of the battery.

C. METAL

Iron tools, etc.

- Fe.1 Part of a tanged tool, possibly a chisel or gouge. From below Phase II cobbling inside the Frenchman's House (not illustrated).
- Fe.2 Stub end of a door-hinge support. From topsoil outside entrance, but possibly originally from the entrance (not illustrated).

Copper Alloy objects (fig 12)

Cu.1 Fragments of two decorated bronze book-clasps. Thought to date from c 1500 by J P Harthan, Keeper of the Library, Victoria and Albert Museum. From occupation-layer at bottom of tower-house, closely associated with pottery I.1 below, and the needle, Cu.2.

Cu.2 Bronze needle. From occupation-layer at bottom of tower-house; closely associated with pottery, I.1 below, and the book-clasps, Cu.1 above. (Not illustrated).

Cu.3 Part of a bell-shaped bronze object. Mr S Maxwell of the National Museum of Antiquities of Scotland writes:

'The bronze fragment is very difficult to diagnose. The unbroken edge is so regular that I find it difficult to believe that it has been joined to anything else, i.e. that it could have been a bell, or the base of a candlestick, as the shape suggests. A cup doesn't seem possible, for the same reason, unless the base is much wider than the neck, as with an inkwell.'

From inside the eastern chamber of the Frenchman's House, stratified with fragments of leather similar to those describe below, presumably deposited in the early eighteenth century.

D. NUMISMATICA

N.1 Coin submitted to Dr J P C Kent, FSA, of the British Museum, who writes:

'The coin is a "double tournois" of Henry IV (1590-1610) or Louis XIII (1610-1643) of France. The diameter of 21 mm tends to favour Henry IV but this size still occasionally persists under Louis XIII.'

From superficial deposits inside the Frenchman's House. As, to quote Dr Kent, 'such an object could only be residual as late as 1800 even in remotest Argyll', the coin can probably be considered as having entered the deposit during the collapse of part of the fireplace. It may be taken, therefore, as some slight confirmation of the seventeenth-century date argued for the construction of the battery and the remodelling of the Kitchen-Building. It is interesting to note that the only coin found on the site was a French one and that it was found associated with the building known in the late eighteenth century as the Frenchman's House.

E. POTTERY (fig 13)

Wheel-made pottery was not found on the site in any context that could be place earlier than the end of the sixteenth century. Prior to that date the only pottery used seems to have been coarse, handmade vessels of the same tradition as Hebridean Craggan ware. The end of the sixteenth century saw the importation of wheel-made wares, but Craggans continued in use and were found on the site in all deposits down to the nineteenth century.

Group I: From occupation-layer at the base of the tower-house sealed during the late sixteenthcentury reconstruction

I.1 Small bag-shaped, hand-made vessel. Thin but coarse, black-brown ware with some attempted external burnishing. Decorated on the neck by randomly disposed circles, apparently produced by stabbing with the end of a straw or truncated quill. Found in close association with the bronze clasps, Cu.1, above.

A vessel decorated by the same technique has been reported from Tiree (Mann 1908, 327-8). This was also bag-shaped, with an upright neck. The decoration was in three neat rows - one in top of the rim, the others on the shoulder of the pot. There were no datable associations and it was described as a 'decorated Craggan'. The term Craggan is normally applied to the primitive hand-made vessels made in the Hebrides down to the nineteenth century. A collection of Craggans from Bousd, Isle of Coll, has been illustrated (Mann 1908, 327-8) and ascribed to the nineteenth century. These vessels were flat-bottomed and undecorated.

- I.2 Sherds of tiny, bag-shaped Craggan. Coarse brown ware with grey core. Some crushed stone temper. Decorated on neck with small horse-shoe shaped indentations, approximately in rows, apparently produced by stabbing with the end of a straw or truncated quill.
 - I.3 Neck of Craggan. Crude, brown-black ware with coarse micaceous sand temper.

- I.4 Rim of wide-mouthed Craggan. Crude brown ware with a little coarse micaceous sand temper. Carbon deposit on exterior.
- I.5 Rim-sherd of small wide-mouthed Craggan. Thin, coarse grey-brown ware with some micaceous sand temper. Decorated by two conical pits placed near rim, apparently made after firing.
 - I.6 Two small dishes of hand-made, red ware with no temper.

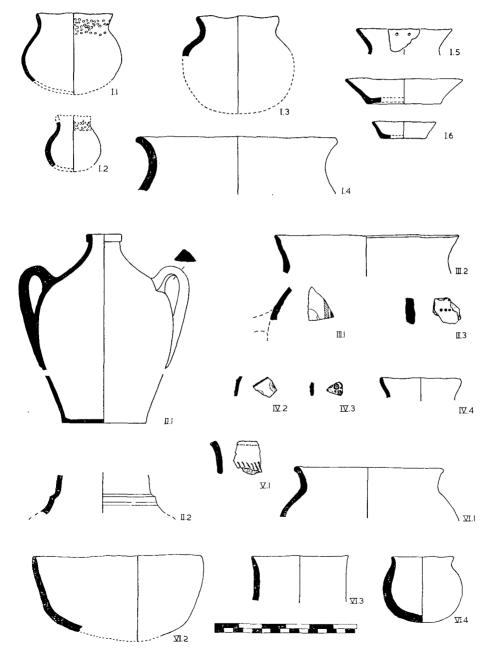


Fig 13 1965-8 excavations: pottery

Group II: From mortary reconstruction layer at foot of tower-house - late sixteenth century

II.1 Costrel of Merida ware. Sherds distributed vertically throughout layer in the SE corner of the tower-house.

Note by J G Hurst, MA, FSA:

Complete pear-shaped costrel with small vertical neck and thickened rim, rounded outside. Two handles with triangular section coming straight up from the body and then turning down sharply to join the shoulder. Flat slightly splayed base. Hard red fabric with many mica inclusions.

This red micaceous fabric is typical of a group of wares made in the Extramadura region of southwest Spain in or near to Merida. The kiln sites are not known but the term Merida ware is proposed for this group. This fabric has a long life through from Roman times and many of the sherds still have Roman characteristics such as criss-cross burnishing. This has confused the issue in Spain where there are few stratified examples and this ware is still labelled as Roman in most Spanish museums.1

It was exported to America, where it was first recorded from Jamestown in contexts of the first half of the seventeenth century though at that time it was thought to come from Mexico (Cotter 1958). During the last ten years Merida ware has been found on sixteen sites in Britain and the Low Countries. Most of these finds are single examples or sherds but there was a large group of many hundred sherds from Plymouth in contexts dating between 1550 and 1650 (Oswald 1969, 122-4). These include large globular costrels, bowls, jugs or bottles. Thirteen of the British sites are in southern England or South Wales. There is only a single example on the east coast at Durham, while on the west coast there is only a single find at Chester between Breachacha and two finds in South Wales at Kidwelly and Benton.

Besides the Breachacha example there are four other datable costrels of this type so far recognised. The earliest are from Guy's Hospital, London, and Hythe, Kent, in contexts of the late fifteenth or early sixteenth century. The next example was found at Tintern Abbey, Monmouthshire, but the form is more ovoid than the Breachacha example. This may belong to the dissolution period in the middle of the sixteenth century. The fourth example was found by J E Parsons in the Refectory at Durham in a context datable to the end of the seventeenth century. This is of the same basic type again but is clearly more developed with the body now become very globular, the handles raised up on to the shoulder and the rim sharply moulded and undercut.

The closest parallels to the Breachacha costrel are a group of three from Middelburg, Netherlands,2 unfortunately not from a dated context. The profile of these is almost identical only being a little larger in size.

It will be seen therefore that this form has a long life at least from 1500 to 1700. The Breachacha example is closer to the Tintern example than the Durham one and can well be placed between them in date with the ovoid shape beginning to expand at the top to give a pear-shaped form which later became globular. A date in the second half of the sixteenth century, as suggested by the archaeological evidence, is therefore quite in order but cannot be confirmed. It is hoped that more dated examples of this type may come to light which may amplify this suggested development or refute it. There are undated examples from London in the Guildhall Museum and in the Ashmolean museum at Oxford.

- II.2 Sherd of shoulder and body of wheel-made vessel. Hard grey-brown ware with even olivebrown glaze externally.
- II.3 Semi-circular sherd of large, wheel-made vessel. Hard grey-brown ware with even olivebrown glaze. Possibly deliberately chipped into a disc shape and later broken. (Not illustrated).
- II.4 Sherds of undecorated Craggan ware similar to those found in the occupation-layer sealed below. (Not illustrated).

Group III: From silt of apsidal spring-bay

- III.1 Sherd of polychrome ware from Saintogne. White ware with pattern in mauve and green under lead glaze. Sixteenth-seventeenth century.
 - III.2 Rim of wide mouthed grey-brown Craggan.
- III.3 Sherd of pinky-brown ware with coarse sand tempering. Decorated with horizontal parallel rows of stabbed cylindrical pits.
 - ¹ I am greatly indepted to Mr Juan Zozava, of the Provincial Museum in Soria, for his help in identifying this fabric.
 - ² In the Zeeuws Museum.

Group IV: From below the cobble outside east entrance

- IV.1 Base angle sherd of seventeenth-century Frechen Bellarmine with mottled 'tiger' glaze. (Not illustrated).
- IV.2 Sherd of Westerwald stoneware. Deep blue decorated with embossed roundels in grey. Late seventeenth century.
- IV.3 Sherd of Westerwald stoneware. Grey with vertical line of raised 'flowers'. Mauve bands of panel. Late seventeenth century.
 - IV.4 Rim sherd of small Craggan.

Group V: From garderobe deposits west of tower-house

V.1 Rim of brown surfaced Craggan ware. Decorated at the neck by diagonal impressions. Probably early eighteenth century.

Group VI: Post-1750 Craggans

- VI.1 Rim and neck of Craggan. Coarse brown ware with coarse micaceous sand temper. Carbon deposit on exterior. From nineteenth-century roof collapse over mortar floor in tower-house. Associated with nineteenth-century stoneware.
- VI.2 Craggan of black ware with some micaceous sand temper. From sand dune behind the fireplace of the Frenchman's House buried by the last large collapse of masonry. Associated with tinglazed earthenware (delft) and brown-glazed earthenware. Probably eighteenth century.
- VI.3 Upright neck of beaker of grey-brown Craggan ware with some coarse sand temper, From upper fill of the spring-bay.
- VI.4 Half of a Craggan from guano above the blocking of the early mural stair at second-floor level. Nineteenth century.

F. GLASS

- G.1 Rim of plain glass bowl, approx. 4 in diam, $\frac{1}{16}$ in thick. From below Phase III cobble in the Frenchman's House. (Not illustrated).
- G.2 Bottle stamp: 'Coll 1816' inside circle. From beneath tumble just above cobble outside Frenchman's House. (Not illustrated).

G. LEATHER

Two groups of leather fragments were found in waterlogged deposits. The first was in the garderobe-deposits W of the tower-house, the other in wet sand immediately above the peaty deposit SE of the cobble apron outside the E entrance. Both groups were treated by the laboratory of the London Museum and were examined by Miss J M Swan, of Northampton Museum, who wrote:

'The two groups from different deposits both contain what would be typical "sweepings up" from a shoemaker's or repairer's workshop (they would be one and the same person in the eighteenth century). The leather is cattle-hide, imperfectly vegetable-tanned - the tanning has not reached the middle satisfactorily and the leather is now splitting in two. This is not unusual. [The group from outside the E entrance] includes part of a heel, probably worn on a man's right foot (though the shoe would have been straight, i.e. made for either foot) as Mr J H Thornton of the Northampton College of Technology thinks that it seems to be worn on this side. It is the usual stacked leather type, fastened together with wooden pegs. Mr Thornton thinks it is more or less complete and consequently, as it is quite low, would most likely come from a shoe and not a boot, dating post 1720. There are two fragments which belong with it and have become separated, the topmost of which is the seat, and the stitch holes are visible round the outside, which attached the heel to the shoe.

There are only three other pieces in the [group] which may be from shoes: one piece which may be the toe end of a vamp, though it shows no signs of having been stitched; another which may be cut from the top of the tongue, date also c 1720; the other which may be part of a lace ankleshoe which could not have come from the same shoe as the tongue. [The group from the top of the garderobe deposits W of the tower-house contains one piece which is certainly from a shoe and could be from the same shoe as the fragment of tongue. This is part of the strap of a buckle shoe and has broken in the usual place where the prongs of the buckle weaken the leather. A leather strap of this width is most likely to have come from a man's shoe dating to between 1670 and 1735, though they do recur later. The rest [of the group] is leather-workers' debris and could very well have been from a shoemaker's. Both [groups] contain shoemaker's debris and there is nothing to suggest that they are not from the same shoemaker's workshop,'

The similarity between the leather fragments from the two groups from opposite sides of the castle suggests that both deposits were from the first half of the eighteenth century, possibly from the third decade. (Not illustrated).

H. WORKED BONE (fig 12)

Bn.1 Possible tooth from a bone comb, $\frac{5}{10}$ in long $\frac{1}{16}$ in square. From occupation-layer at the base of the tower-house. (Not illustrated).

Bn.2 Needle, 23 in long, with an approximately square eye. A primitive type that can be closely paralleled by examples from prehistoric contexts. From occupation-layer at base of tower-house.

Bn.3 Possible tally. Sliver of worked bone of rectangular section $1\frac{1}{2}$ in by $\frac{3}{8}$ in by $\frac{3}{64}$ in. From occupation-layer at bottom of the tower-house. (Not illustrated).

Bn.4 Antler pin from garderobe deposit W of tower-house. Early eighteenth century.

Bn.5 Bone handle with a grooved pattern from superficial deposits in Frenchman's House. Nineteenth century.

J. WORKED WOOD (fig 14)

W.1 Mitred end of batten. From below the cobble outside E curtain, seventeenth century or earlier. (Not illustrated).

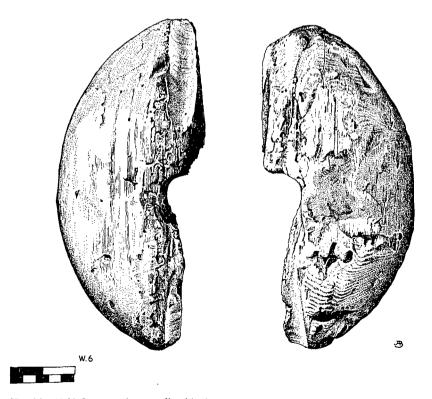


Fig 14 1965-8 excavations: pulley-block

W.2 Bottom of the leg of a chair with mortices for cross rails. From garderobe deposit W of tower-house, Probably deposited early eighteenth century, (Not illustrated).

W.3 Fragments of pegged mortice and tenon joints. From garderobe deposit W of tower-house. (Not illustrated).

W.4 Notched stick or tally. From garderobe deposit W of tower-house, (Not illustrated).

W.5 Timber, approximately 4 in by $3\frac{1}{2}$ in by 2 ft 1 in long, with complicated chamfered tenon at one end and a large mortice with two peg-holes at the other. Possibly from the roof of the tower-house. From top of waterlogged deposits W of the tower-house. (Not illustrated).

W.6 Pulley-block from rigging. From the fill of the rectangular well of the Frenchman's House.

(Drawn by Mr A Brown of the National Museum.)

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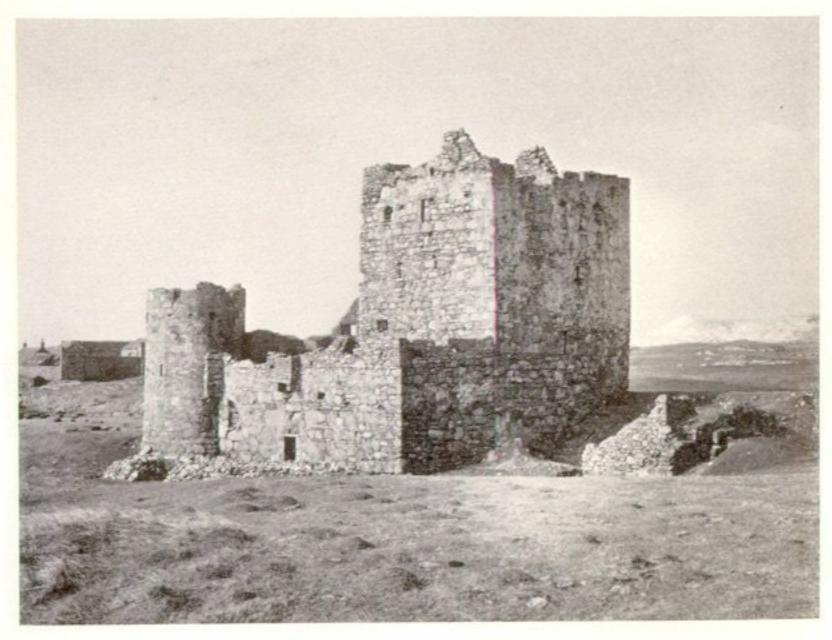
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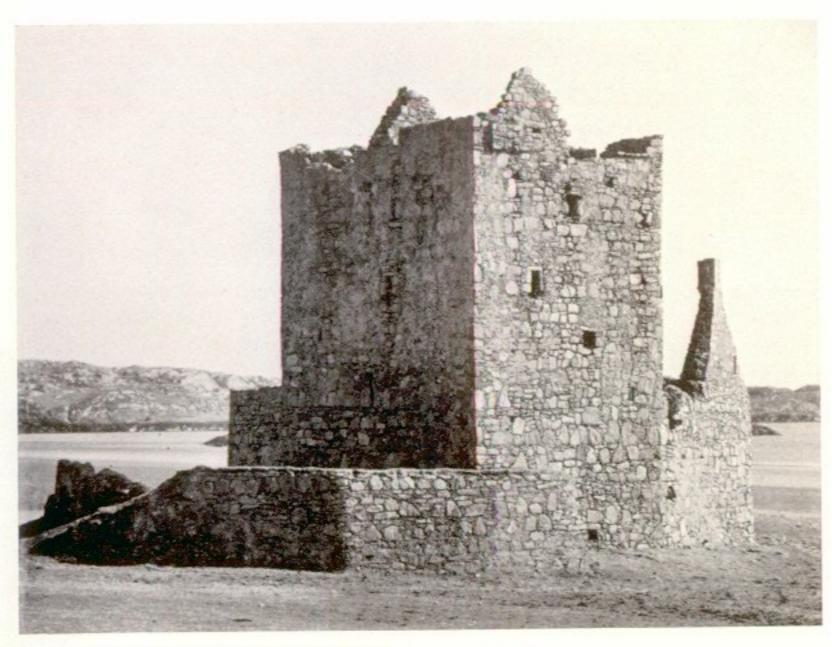
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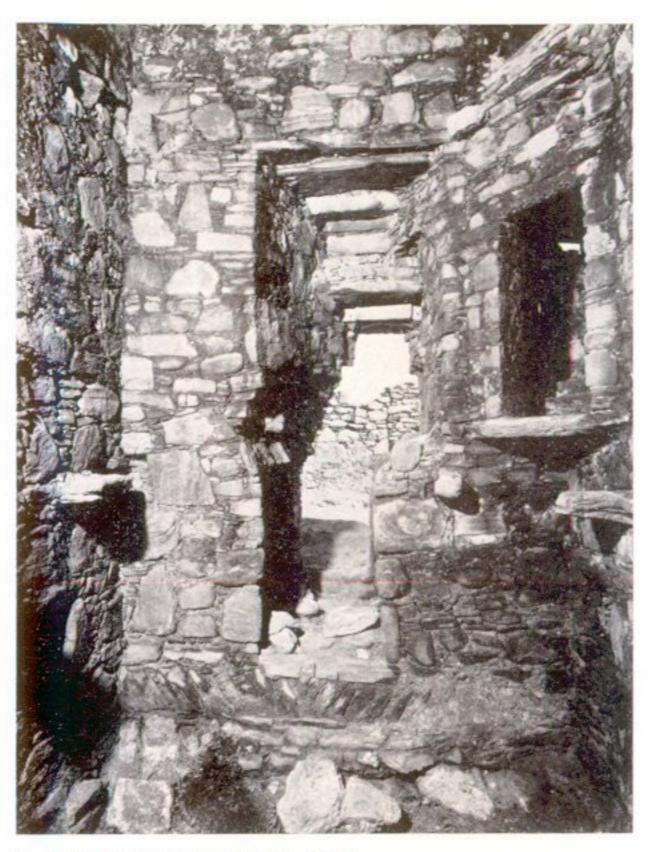
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a General view of castle from NE



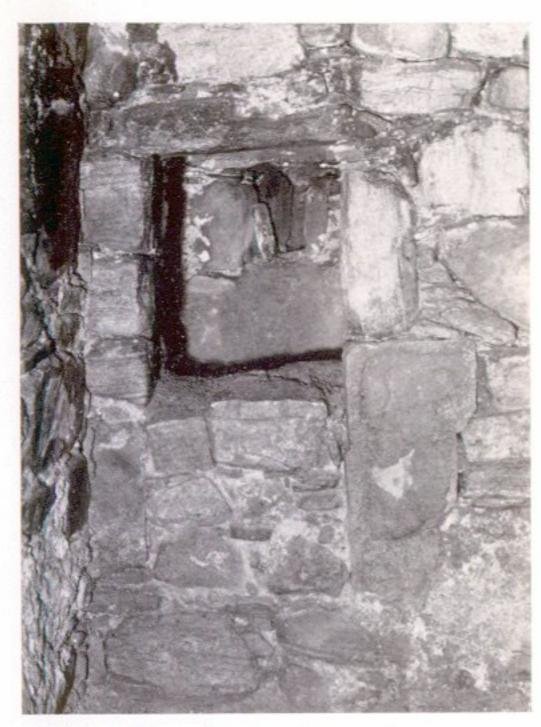
b General view of castle from NW



a Interior of tower-house from W showing entrance-doorways



b Junction of curtain wall with SW angle of tower-house showing latrine



a Ground-floor doorway to mural staircase in S wall of tower-house



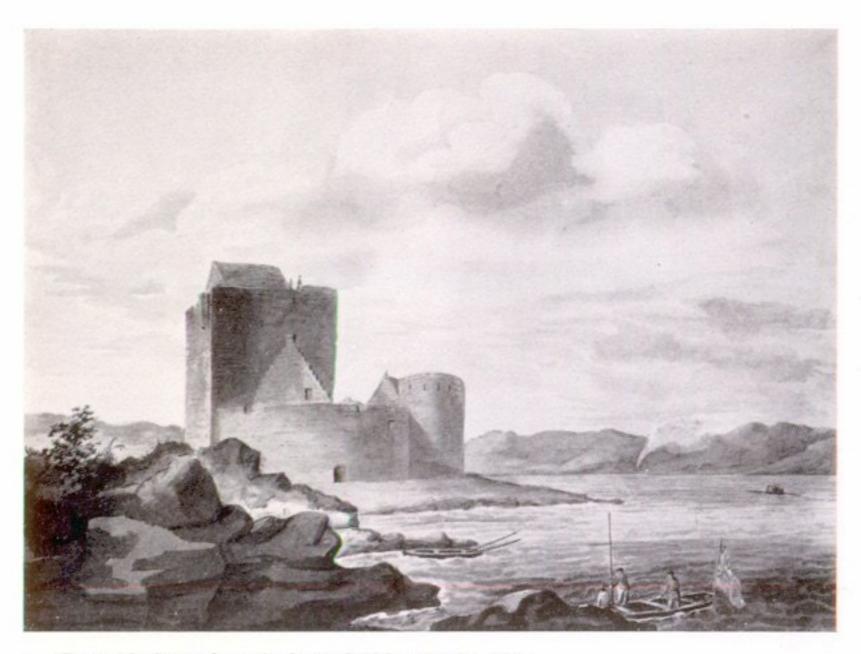
b First-floor doorway to turnpikestaircase in S wall of tower-house



c Gable-wall of tower-house showing outline of earlier gable-head



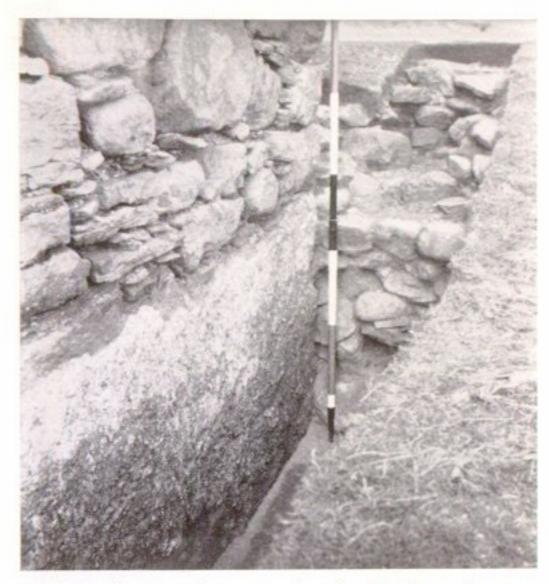
d Kitchen fire-place



a General view of castle from SW by Poole, 1841. (Copyright, The National Galleries of Scotland)



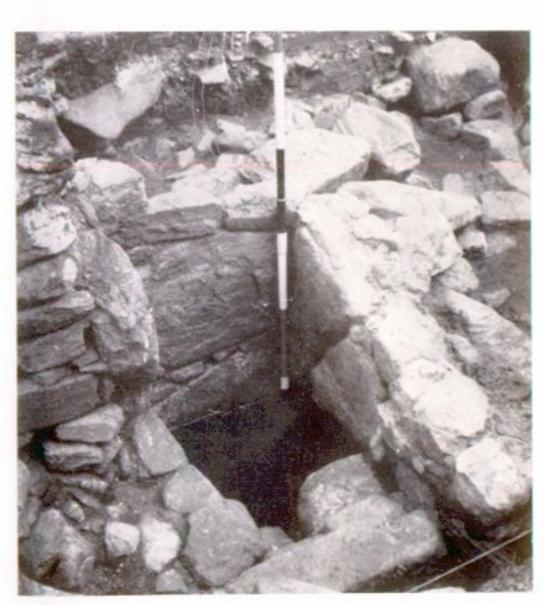
b Kitchen and battery from above



Trench across battery, showing harling of tower-house wall preserved beneath soil-level, and clay-bound rear of battery-wall



b Kitchen, showing rounded cobbles of Phase III floor (foreground) removed to show Phase II floor. Fireplace in background, showing bedrock hearth, subsequently reduced in width



c Rectangular well adjacent to E wall of kitchen, approached by small rough steps



d Section outside E courtyard-entrance showing open conduit crossing late cobble-pavement