

## **4. Duchal Castle: an Initial Survey**

Derek Alexander

### **Aim of study**

The intention of this study was to record the physical remains of Duchal Castle and provide a brief summary of its history. Very little of the castle survives to any great height, and so it has drawn little detailed examination in the past. However, the deteriorating condition of some of the wall faces meant that they should be planned and recorded before what little architectural detail they did contain was lost forever.

### **Location (Illustration 1)**

Duchal Castle is located 5km south-west of Kilmacolm on the western side of Strathgryffe. It lies beside the minor road that runs southwards, through Green Farm, off the B788 Kilmacolm - Greenock road. The castle itself sits on a promontory 110m north of the confluence of the Green Water and the Blacketty Water which flow down the north-east and south-west sides of the castle respectively. The promontory is formed by an igneous rock outcrop, flanked by gullies c. 8m deep, through which the rivers flow.

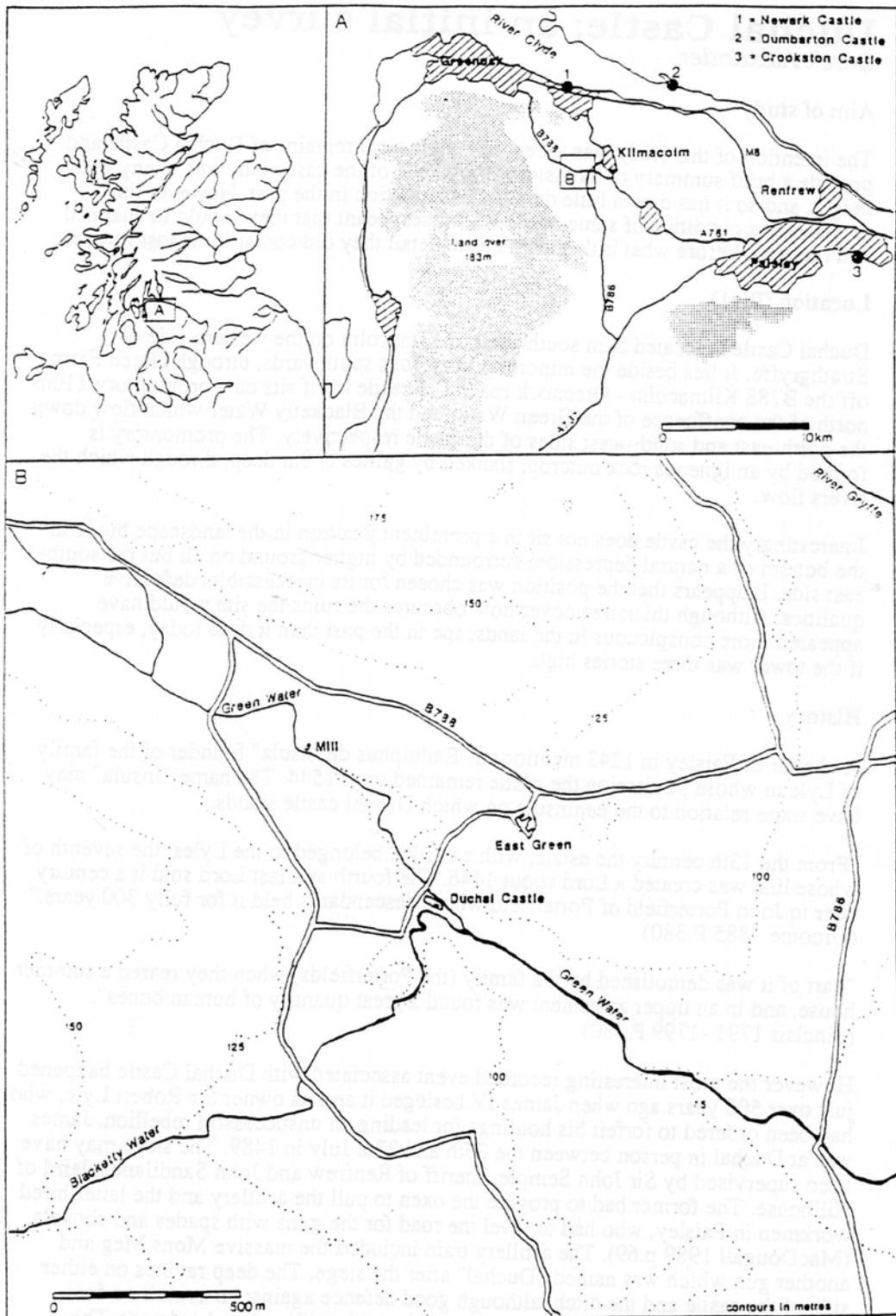
Interestingly the castle does not sit in a prominent position in the landscape but is in the bottom of a natural depression, surrounded by higher ground on all but the south-east side. It appears that the position was chosen for its inaccessible, defensive qualities. Although thick tree cover now obscures the ruins, the site would have appeared more conspicuous in the landscape in the past than it does today, especially if the tower was three storeys high.

### **History**

A charter of Paisley in 1243 mentions a "Radulphus de Insula" founder of the family of Lyle in whose possession the castle remained until 1544. The name "Insula" may have some relation to the peninsula on which Duchal castle stands.

"From the 13th century the estate, with a castle...belonged to the Lyles, the seventh of whose line was created a Lord about 1446. The fourth and last Lord sold it a century later to John Porterfield of Porterfield whose descendants held it for fully 300 years." (Groome 1885 P.380)

"Part of it was demolished by the family (the Porterfields) when they reared a summer house, and in an upper apartment was found a great quantity of human bones". (Sinclair 1791-1799 P.780)



III.1 - Location of Duchal Castle

However, the most interesting recorded event associated with Duchal Castle happened just over 500 years ago when James IV besieged it and its owner Sir Robert Lyle, who had been ordered to forfeit his holdings for leading an unsuccessful rebellion. James was at Duchal in person between the 25th and 27th July in 1489. The siege may have been supervised by Sir John Semple, sheriff of Renfrew and John Sandilands, laird of Hillhouse. The former had to provide the oxen to pull the artillery and the latter hired workmen in Paisley, who had to level the road for the guns with spades and shovels (MacDougall 1989 p.69). The artillery train included the massive Mons Meg and another gun which was named "Duchal" after the siege. The deep ravines on either side of the castle and the ditch, although good defence against an assault on foot, would have been of limited use against a prolonged artillery bombardment. The surrounding landscape provided plenty of practical gun sites that would easily be within range and more importantly elevation for firing directly at the walls. It is no wonder therefore that the siege was over by the end of the month.

The guns caused such severe damage during the siege that masons had to be employed to effect repairs early in September 1489 (MacDougall 1989 p.69).

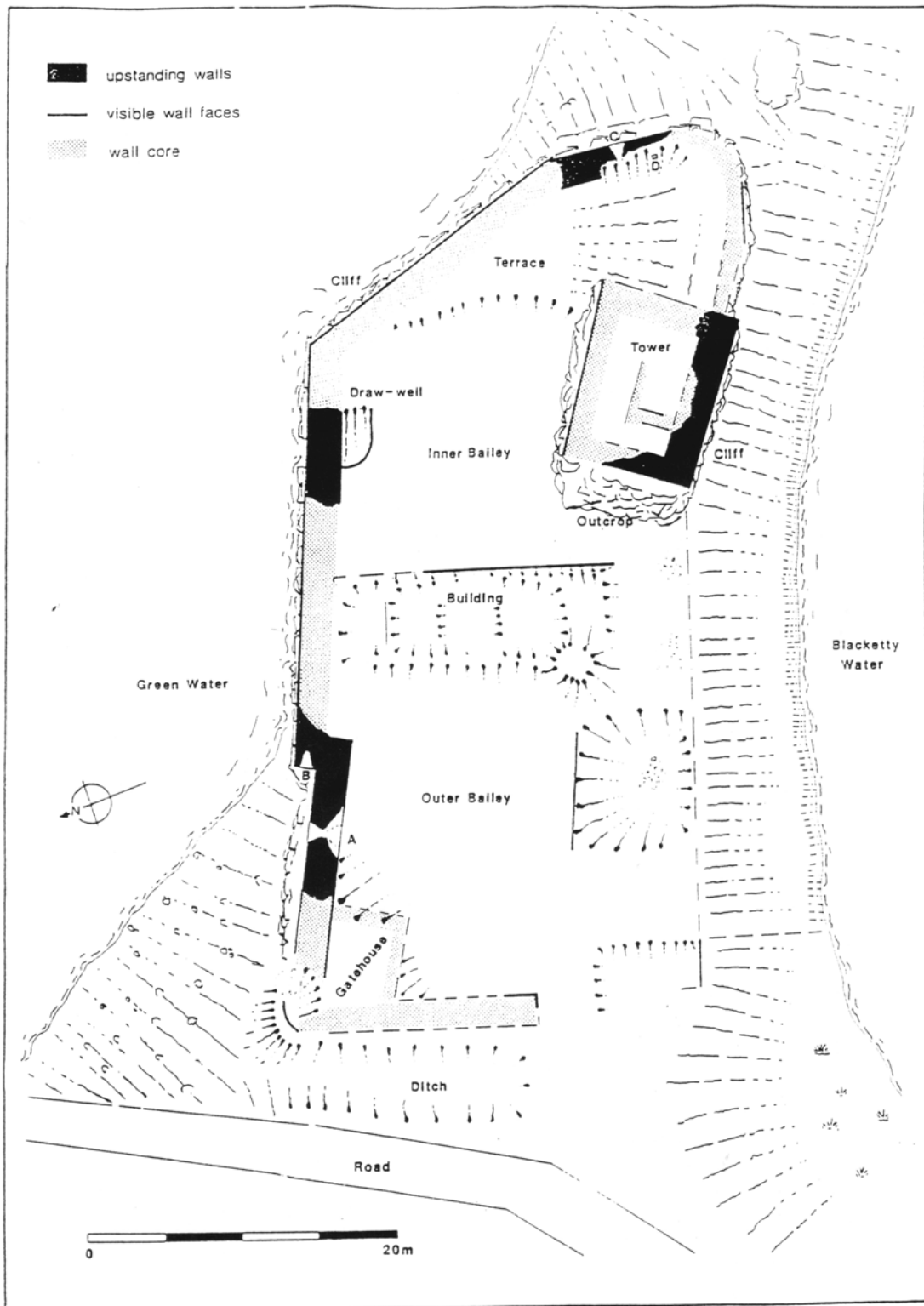
An interesting note about the siege was that earlier that summer a Danish pirate called Lutkyn Mere had been captured, 36 of his crew were executed while 9 others volunteered for the siege of Duchal (MacDougall 1989 p.228)

King James IV visited the castle once again on the 16th March 1498 after having visited his new castle at Kilkerran and the repaired castle at Tarbert, Kintyre. When at Duchal he celebrated his twenty-fifth birthday and therefore issued his act of revocation from there. This meant he was able to revoke all grants made by him during his legal minority (MacDougall 1989 p.177).

There are undoubtedly other historical references to Duchal castle, but those above describe events which may have altered the castle's construction.

### **Previous work**

Little previous work has been undertaken on the castle. MacGibbon and Ross (1887) provided a brief description of the site accompanied by a plan. The latter is uncharacteristically basic and even shows the castle to be located in a river loop, rather than at the confluence. Unfortunately they did not draw one of their excellent sketches and thus it is impossible to estimate the amount of deterioration since then, although their description does mention some features no longer apparent.



III.2 - Plan of Duchal Castle

“The whole position which is of considerable extent - being about 70 yards in length from east to west, by 30 yards wide - has been enclosed with a strong wall of enceinte, portions of which still remain. Outside of this wall to the west the neck of the peninsula has been cut across by a deep ditch. The entrance gateway has probably been at the north-west angle (marked A on Plan). The general surface of the enclosure is fairly level, but at the south-east angle a precipitous pinnacle rises about 20 feet above the courtyard. On this seems to have stood the keep, the foundations of which, surrounded by a higher wall, are yet traceable.....The wall of enceinte, although greatly demolished, has been of a much stronger character than the ordinary enclosing walls of courtyards, and may possibly be the remains of a thirteenth century castle..... The whole castle is most probably a structure of the Second Period.” (MacGibbon and Ross 1889)

Detailed Description (Illustration 2)

### **Ditch**

As mentioned by MacGibbon and Ross above, the neck of the peninsula to the north-west is cut off by a ditch. However, the majority of this has been infilled and its original depth is unknown. The construction of the road must have followed part of this ditch. The southern end of the ditch has been completely filled by the creation of a lay-by in front of the castle and by the continuous dumping of garden and household rubbish down the slope into the Blacketty Water. The stretch of wall adjacent to the lay-by has also been destroyed, perhaps to provide access into the castle interior. The surviving ditch is c.15m long, 4 - 6m wide, and 0.5 - 1.5m deep at the northern end.

### **Western Wall**

The southern portion of the western wall has totally disappeared but the entire wall must have originally been c..25m long, only the northern 14m still stands. This is c.1.5m thick and 1m - 1.5m high although only the southern part of the inner face is visible (3 courses).

### **Gatehouse**

MacGibbon and Ross noted that the entrance to the castle probably lay in the north-west corner but there is now little evidence to support this statement. It was reported that in 1782 a great part of the ruins remained intact along with a drawbridge, which may have been located in this corner. This area appears to include the foundations of a square tower c.6m x 6m (not including the curtain wall) which may represent the remains of a gatehouse, comparable in size to the gatehouse at Newark Castle, Port Glasgow. There is a definite internal wall-face on the south-western side of this tower. The exterior wall faces, which form part of the curtain wall at this point, are not very clear. However, the northern corner of this gatehouse is formed by an arc of walling which projects slightly from the line of the northern curtain wall. This arc measures c.2m long and c.1m high (4-5 courses can be seen). It may represent the

remains of a circular corner tower, although small, alternatively it may be a buttress.

### **Southern Wall**

Very little remains of the southern wall apart from a short 3.3m long stretch at the south-western corner. This wall may continue eastwards to the outcrop on which the tower stands, although no faces could be seen.

Outside of this projected wall the ground slopes down to the Blacketty Water. This is the only part of the perimeter along the edge of the promontory that is not bordered by precipitous cliffs. Access to this area, from the west, may have been restricted by a wall running down the slope from the southern wall face. This wall is represented by a terrace and tumble.

### **Northern Wall**

The northern curtain wall runs from the gatehouse tower eastwards for a distance of c.10m before making a 90 degree kink 1.5m long. It then continues eastwards for a distance of c.28m before forming the north-eastern corner of the castle within the inner bailey. About 6m north-west of the kink there are the remains of a gun loop (A) through the wall. On the outer face of the kink there is a small square opening (B) 0.3m wide and high. It appears too small to have been a gun-loop, although it points along the wall face, and is more likely to have been a drainage channel.

The ground within the outer bailey is generally flat but to the south-west, there is a large depression, 9m long and 7m wide. The north-eastern side of this may possibly be formed by a stone wall and the southern side is formed by the continuation of the southern curtain wall. The depression is c.2 - 3m deep and it contains a large amount of rubble. It may represent the remains of the cellar of a structure.

### **Range of buildings**

The limit between what has been termed the inner and outer baileys is defined by what appears to be the foundation of a rectangular building.

This building is represented by a stone-built, turf covered mound 18.4m long and c.6m wide. It contains a number of depressions along its length suggesting a possible tripartite division. The stone face of the eastern side can be seen as well as the possible south-eastern and north-western corners. The latter corner appears to overlie the projected line of the inside face of the northern curtain wall. This would suggest that the structure was built after the outer walls of the castle had ceased to be used as a defensive structure. There is a possibility that it represents the "summer house" reported as being built at the end of the 18th century (see above). This would make the division between the inner and outer bailey artificial but this has been retained here for ease of description.

The south-western corner of this structure is covered by a large mound of rubble which partly over spills into the depression to the west. To the south of this structure there are a number of large chunks of masonry which may have fallen from the tower.

### **Inner Bailey**

The inner bailey covers an area c.16m x 16m. It is defined by the range of buildings to the west, the curtain wall to the north, a raised terrace to the east and the outcrop upon which the tower stands to the south.

### **Northern Wall**

There is a steep sided hole or chute c. 4.5m west of the north-eastern corner of the curtain wall. It is c.3 - 4m deep, 4m long and 2m wide. Its southern side is formed by a wall face which curves round to meet the curtain wall, which forms the northern face. The northern wall spans a natural cleft in the rock at this point and a stress arch can be seen on the outer exterior face of the wall. There is an opening at the bottom which is at the level of the river. The descent into the hole is steep and has partially silted up from the east. It seems likely that there would be stairs leading down to the bottom. However, it is less clear what function it served. It could be a postern gate but this seems unlikely because it exits out directly into the Green Water. Furthermore, there is no indication of a door at the base. A more plausible explanation would be that it functioned as a well, with the wall face, now missing, originally continuing right down, leaving only a small conduit to allow water in. Steps would have provided access down to the water. It seems likely that this is the remains of the draw-well referred to in 1782 (see above).

### **The Terrace**

To the east of the inner bailey there is a grass-covered terrace, which runs north to south and is 14 - 15m long. It is 1m high, 2m wide at the northern end and 8m wide at the southern end. The function of this terrace is unclear. It may be a ledge of natural bedrock, as it merges with the outcrop on which the tower stands. Alternatively it may represent the remains of a range of buildings, although the levelness argues against this.

### **The Eastern Wall**

The eastern wall is dog-legged, dividing it into north-western and south-eastern parts. Very little of the north-western wall still exists, although the outer face can be traced along the cliff top.

The south-eastern section, although still based on bedrock, is fronted by a less precipitous cliff. More of the wall core survives along this section. The exterior wall face can be clearly seen but the lower portions have either fallen away or have been robbed of the facing stones. The result has been a severe undermining of the wall structure, leaving the wall highly unstable. Within the remains of this wall an upper lintel of a wide-mouthed gun-Loop (C) can be seen, 2m above the bedrock. The lower lintel is missing but the inward sloping

sides are visible. It is c.1.1m long and 0.3m high, and is therefore similar to gun-loop (A) in the northern wall.

At least 2 - 3m to the south of gun-loop (C) there is a hole (D) through the wall from the inside of the castle into the robbed out section of the wall core. Initially this was thought to be the result of collapsing wall core, but closer inspection revealed a worked stone set at an angle of 45 degrees within the wall core at this point. This appears to have been the upper surface of a possible latrine chute.

### **The South-eastern Corner**

Very little remains of the curtain wall in the south-eastern corner of the castle, only a short stretch of wall face c.4m long, overlooking the Blacketty water, which is covered with trees. At the extreme south-east where there is no wall visible c.4m south of the latrine chute (D) there is a cleft in the outcropping rock. This is now used as access to the south-eastern end of the promontory and may have been used for such a function in the past.

### **Tower**

Access to the tower would have been through the outer and inner baileys, onto the terrace and then up the slope to the south-eastern corner of the curtain wall before turning north-westwards and up the gentle slope to the tower itself.

The outcrop on which the tower stands is precipitous on all but the south-eastern side. Within the inner bailey it stands at least 2m high with masonry on top of this making the present ground level of the tower 4m above the bailey. On the south-western side the outcrop is 3 - 4m high and is situated on the steep slope down to the Blacketty Water.

The tower measures 11.5m long (north-west to south-east) and 8.5 - 9m wide. There are substantial remains of the southern and eastern walls of which the outside and parts of the inside faces are clear. These stand to a height of c.2m. The northern corner has completely disappeared and only the outer face of the north-eastern wall is visible from below built onto the rock outcrop. The southern corner overhangs the outcrop as a result of the collapse of lower portions of masonry. A couple of the stones of the south-eastern face project through the turf and two possible internal divisions can also be seen.

Although on the ground the remains of the tower look small in area this is deceptive. It should be noted that the remaining foundations are in fact larger than those of the 15<sup>th</sup> century tower at Newark Castle, Port Glasgow which measures 8 - 9m long and 6.5m wide (Tabraham ?). The tower at Newark had an entrance on the ground with access to a vaulted cellar and a spiral staircase in the north-east corner leading to another two floors and then to the battlements.

### **Discussion**



It is surprising that the history of the castle and its upstanding remains have not attracted the attention of a detailed survey prior to this. The castle represents one of the earliest surviving castles in Renfrewshire and is characterised by the presence of its curtain walls.

### **The Early Castle**

The thick curtain walls which follow the edge of the geological outcrop are characteristic of a 13th century enclosure castle, rather than a later barmkin wall. These may have formed the defensive structure of the castle with living quarters and ancillary buildings being built of timber against the walls. The tower was probably a later, 15th century addition, although the defensive nature of the outcrop would have been ideal for timber predecessors. Recent excavations at Dundonald Castle, Ayrshire, have shown a sequence of occupation going as far back as the Iron Age (Ewart 1988 and 1991) and it is likely that the site of Duchal castle may have attracted earlier defensive fortification.

### **The Siege**

The siege by James IV's troops in 1489 is the most important historical event associated with the castle. However, apart from the historical references there are no traces of it archaeologically. The evidence for the effects of sieges on castles is scarce, as indicated in a recent article on "Destruction and Damage" by Geoffrey Stell, who mentions the campaign against Duchal, Crookston and Dumbarton in 1489 (Stell 1991, p.29). It seems unlikely that the current condition of the castle was a result of the attentions of an artillery bombardment firstly because the historical sources refer to repairs and continued use of the castle (see above) and secondly the survey produced evidence that the site was in fact refortified, probably early in the 16th century by the addition of horizontal gunloops.

### **The Gun-loops**

The proposed earliest gun-loops in Scotland have been suggested at Threave Castle, Kirkcudbrightshire and at Ravenscraig Castle, Fife to date between 1460 and 1483 (MacIvor 1981, p.100). These were small gun-loops classed as "dumb-bell" and "inverted keyhole" loops which appear to have developed from arrow slits and were primarily for the use of handheld guns. Examples of both of these early types can be found in the 15th century gatehouse at Newark Castle, Port Glasgow, 6km north of Duchal, on the Firth of Clyde. These early types were later supplemented at Ravenscraig Castle and built into the new blockhouse of Dunbar Castle, East Lothian, with wide-mouthed, horizontal gun-loops sometime after 1520.

These later loops were designed to accommodate larger pieces of artillery mounted in stocks, sometimes on trestles. They became extremely common in the first half of the 16th century and can be found in many tower houses throughout the country. They were normally constructed of fine ashlar masonry, sculptured to give an oval mouth, as were the examples in the forework at Tarbert Castle, Kintyre. The examples at Duchal appear extremely

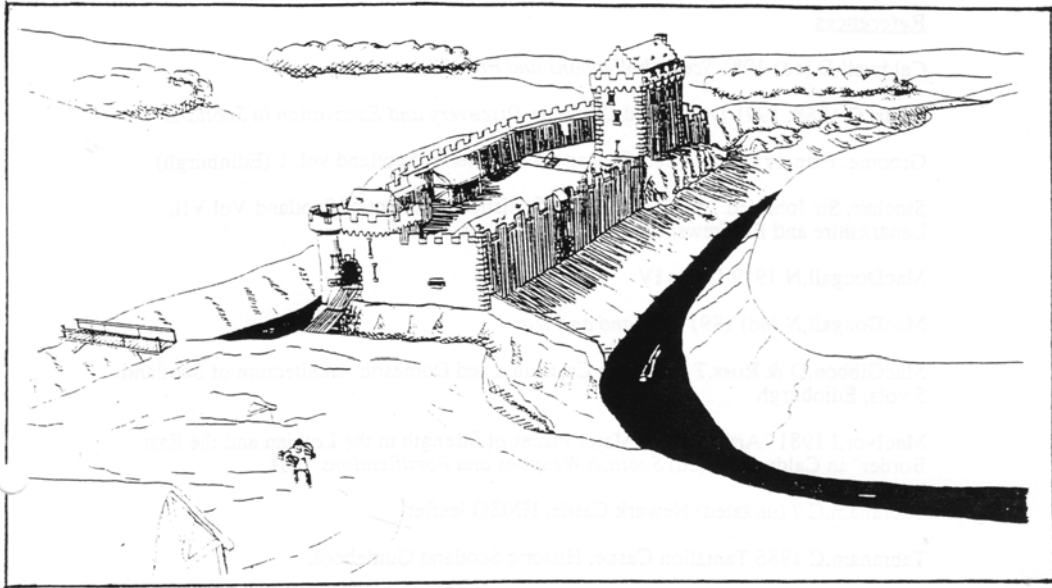
crude in comparison, although this is also typical of the rest of the stonework in the castle. Only gun-loop B has any worked stone, the fragmentary remains of a lip on the bottom lintel. On this basis it could perhaps be suggested that this loop and the wall which contains it is a later addition to cover the north-western wall, across the face of gun-loop A, displaying an understanding of the need for covering fire, a need which was often missing in earlier artillery fortification. The relationship of the stone work in this kink to the rest of the curtain wall is unclear but it may be butted against it, and is perhaps a later addition. This loop B is certainly smaller and would have necessitated a cramped firing position, hard against the inside of the curtain wall, and was probably for a smaller gun than the other two loops.

The crudeness of construction of loops A and C may imply they were early examples of their type although no precise date can be obtained for them. Alternatively they may have been robbed of their finer stonework although the present lintels appear to be the top of the loops. The most plausible explanation is that they were simply badly built, perhaps in a hurry.

The fact that loops, dating to the early 16th century, are built into the curtain walls, which as mentioned above would appear to date to the 13th century, requires explanation. At Tantallon Castle, East Lothian, sometime after the siege of 1528 "wide-mouthed gunholes.....were punched through the landward facing wall" (Tabraham 1986, p.24). However, this insertion of later gunloops into existing walls was clearly characterised by the use of a different, greenish stone and was therefore detectable. Unfortunately no such difference in the stone work is visible around the loops at Duchal, apart from the fact that in both cases the wall faces have subsequently been removed, whether this is a result of poor workmanship or of robbing will remain unknown.

### **Conclusion**

The remains of Duchal Castle, although fragmentary, contain a certain amount of architectural details which, combined with its colourful history, can greatly enhance our knowledge of castles in Renfrewshire. It is from the information gained from this survey that the reconstruction (Illustration 3) was based. However it should be pointed out that much of it is conjectural and only excavation will provide answers to some of the questions highlighted within this article.



Ill.3 - Conjectural reconstruction of Duchal Castle in the 16th century

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