



Society of Antiquaries
of **Scotland**

SCOTTISH ARCHAEOLOGICAL INTERNET REPORTS

e-ISSN: 2056-7421

Achanduin Castle, Lismore, Argyll: an account of the excavations by Dennis Turner, 1970–5

How to cite:

Caldwell, D H & Stell, G P 2017 'Achanduin Castle, Lismore, Argyll: an account of the excavations by Dennis Turner, 1970–5', *Scottish Archaeological Internet Reports* 73. <https://doi.org/10.9750/issn.2056-7421.2017.73>

Visit the journal homepage at <http://journals.socantscot.org/index.php/sair>

OPEN  ACCESS

Please note:

This document is the publisher's PDF of an article published in the Scottish Archaeological Internet Reports journal. This version has been peer-reviewed and contains all final editorial corrections and journal pagination.

Copyright © 2017 rests with the Society and the individual authors. Except where otherwise noted, this work is licensed under Creative Commons Attribution-NonCommercial-No Derivatives licence. <http://creativecommons.org/licenses/by-nc-nd/4.0/>

The permission to reproduce the Society's copyright-protected material does not extend to any material which is identified as being the copyright of a third party. Authorisation to reproduce such material must be obtained from the copyright holders concerned.



Achanduin Castle, Lismore, Argyll: an account of the excavations by Dennis Turner, 1970–5

David H Caldwell and Geoffrey P Stell

with contributions by

Donald Bramwell†, Geoffrey Collins†, George Haggarty, Derek Hall, Nicholas Holmes,
Andrew Jones, Barbara Noddle† and Nigel Ruckley

Author contact

dh.caldwell@btinternet.com

Funding

The Strathmartine Trust and The Castle Studies Group

e-ISSN: 2056-7421

<https://doi.org/10.9750/issn.2056-741.2017.73>

Published by the Society of Antiquaries of Scotland with the
Archaeology Data Service archaeologydataservice.ac.uk.

Society of Antiquaries of Scotland

National Museums Scotland

Chambers Street

Edinburgh EH1 1JF

United Kingdom

Managing editor: Catherine Aitken

Copy-editor: Marianne Noble

Production: Raspberry Creative Type, Edinburgh

Copyright © 2017 rests with the Society and the individual
authors. Except where otherwise noted, this work is licensed
under Creative Commons Attribution-NonCommercial-
NoDerivatives licence. [http://creativecommons.org/licenses/
by-nc-nd/4.0/](http://creativecommons.org/licenses/by-nc-nd/4.0/)

Requests for permission to reproduce material from a
SAIR report should be sent to the Director of the Society
of Antiquaries of Scotland, as well as to the author,
illustrator, photographer or other copyright holder.

www.socantscot.org

Registered Scottish charity no SC010440

TABLE OF CONTENTS

List of illustrations	v
List of tables	vi
1. Abstract	1
2. Introduction	1
3. Physical context	5
3.1 Geology	5
3.2 Local topography	6
3.3 Castle location	6
4. Historical background	6
5. Excavation aims and methods	8
5.1 An overview of the excavated areas	11
6. Descriptive analysis of structures and excavated areas (DJT)	22
6.1 Exterior	22
6.2 Entrances, stairs and wall-heads	25
6.3 Interior	26
7. Artefacts	29
7.1 The ceramics, <i>by Derek Hall and George Haggarty</i>	29
7.2 Coins and jettons, <i>by Nicholas Holmes</i>	34
7.3 The metalwork	36
7.4 Bone objects	44
7.5 Wooden object	45
7.6 Stone objects	45
7.7 Architectural fragments	46
8. Environmental remains	46
8.1 The mammal bones, <i>by the late Barbara A Noddle</i>	46
8.2 Small mammal bones, <i>by the late Donald Bramwell</i>	52
8.3 Bird bones, <i>by the late Donald Bramwell</i>	52
8.4 Fish bones, <i>by A K G Jones</i>	52
9. General discussion and some conclusions (DJT)	55
9.1 Castle occupation and dating	55
9.2 Structural evidence	56
9.3 Architectural ancestry and regional context	57
10. Observations on the excavations, <i>by David H Caldwell and Geoffrey P Stell</i>	58
10.1 Structural evidence	58
10.2 Phases of occupation (Table 1)	61
11. Acknowledgements	64

12. Notes 64
13. References 66

LIST OF ILLUSTRATIONS

1. Dennis John Turner, 1932-2013	1
2. The western seaboard showing the location of Achanduin Castle, Lismore	2
3. General view from north, 1970 and published in 1975 in RCAHMS, <i>Inventory of Argyll</i> , 2, Plate 37A	3
4. Distant view from north-east, c 1970	3
5. Ground plan as surveyed in 1971 and published in 1975 in RCAHMS, <i>Inventory of Argyll</i> , 2, Fig. 159	4
6. Aerial view from west, 1977	5
7. Cliffs on the north-western flank of the site, c 1970	5
8. Ground plan showing layout of excavated areas	9
9. Ground plan showing location of sections illustrated in DJT's report	10
10. Plan of excavated Areas I–III and VI	11
11. View of collapsed masonry in excavated Area I from south, August 1970	12
12. Section through hall doorway in excavated Area II	12
13. Elevation of external (north-west) face of south-east (hall) range in excavated Area II	13
14. View from west of exposed external face of south-east (hall) range in excavated Area II, September 1970	13
15. Plan of excavated Areas III and VI	14
16. High-level view from east of excavated Area III, September 1971	15
17. Sections in excavated Areas III and VI through secondary building and earlier deposits	16
18. Plan of excavated Areas IV, V and VIII in south-east (hall) range	16
19. View from within south-east range through doorway, showing drain in Area II	17
20. Section through south-east (hall) range in excavated Area IV	17
21. Excavated Area VI from south-west, August 1974	18
22. Excavated Area VII from south-east, August 1972, showing castle entrance with drain to left and 'cobble' surface exposed	18
23. Plan of excavated Area IX-a-c-d	20
24. Plan of excavation in forebuilding	21
25. Section through the deposits in the excavated forebuilding	21
26. Interior of courtyard from south-west, 1972 and published in 1975 in RCAHMS, <i>Inventory of Argyll</i> , 2, Plate 38A	22
27. Masons' marks as published at 1:5 scale in 1975 in RCAHMS, <i>Inventory of Argyll</i> , 2, Fig. 161; A and B, south-east hall range; C, detached fragment	24
28. Cathedral of St Moluag and Parish Church, Lismore: masons' marks as published in 1975 in RCAHMS, <i>Inventory of Argyll</i> , 2, Fig. 151	24
29. Intra-mural stair in north-east wall, 1970 and published in 1975 in RCAHMS, <i>Inventory of Argyll</i> , 2, Plate 37B	25
30. First-floor plan as surveyed in 1971 and published in 1975 in RCAHMS, <i>Inventory of Argyll</i> , 2, Fig. 160	27
31. Pottery. Hand-made vessel no. 1/xl; wheel-made jug no. 29/xxxvi	30
32. Brooch no. 1/lxxxiii, front (top) and back (bottom)	36
33. Brooch no. 2/lvii	37
34. Brooch no. 3/lvi	37
35. Brooch no. 4/lxxxi	38
36. Brooch no. 5/lxi	38
37. Brooch no. 6/lx, front (top) and back (bottom)	38

38. Copper alloy artefacts. Buckle no. 7/lxxvii; belt loop no. 10/75	39
39. Toilet set no. 12/lxxi	39
40. Iron artefacts	41
41. Iron artefacts	41
42. Jew's harp	42
43. Iron artefacts	42
44. Padlock slide key	43
45. Iron artefacts	43
46. Nails	44
47. Two bone tuning pegs and a whetstone	45
48. Plan showing traces of medieval structures in the north corner of the courtyard and along the north-west curtain wall	59
49. Evidence of a north-west range in Area I	60
50. Evidence of pre-castle occupation in Area I	62

LIST OF TABLES

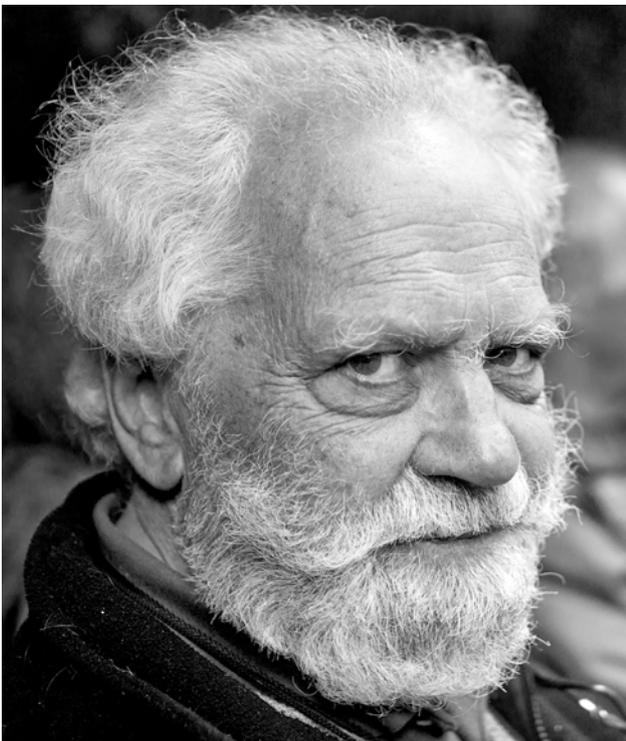
1. Excavated deposits: an overview of the location of layers and features	10
2. Proportion of species (large mammals) by fragments	47
3. Minimum numbers of individuals (MNI) and proportions (large mammals)	48
4. Age range of individuals: major domestic species only	49
5. Anatomical analysis of cattle and sheep bone from group S.3 (from A.III) expressed as %	49
6. Measurements of cattle bone (in mm): complete bones	50
7. Measurements of cattle bone (in mm): incomplete bones	50
8. Dimensions of pig bones (in mm)	51
9. Small mammal bones	52
10. Bird bones	53
11. Dimensions of bird bones (in mm)	53

1. ABSTRACT

Excavations were undertaken at Achanduin Castle, Lismore, Argyll (NGR: NM 8043 3927), over six seasons from 1970 to 1975 under the direction of the late Dennis John Turner (1932–2013), henceforward referred to as DJT. Partly funded by the Society of Antiquaries of Scotland and with tools and equipment loaned by RCAHMS (now Historic Environment Scotland), the work was carried out in support of the RCAHMS's programme of survey in the Lorn district of Argyll. Its purpose was to examine an apparently little-altered but much-ruined example of a castle of enclosure ascribable to a small but identifiably distinct group of rectangular, or near rectangular, courtyard castles. DJT concluded that it was built c 1295–1310 by the MacDougalls, and only later passed to the bishops of Argyll. The authors add their own observations on the excavations in a separate section. They note tenuous evidence for a pre-castle phase. The bulk of the report focuses on the erection and occupation of the castle, followed by abandonment, post-medieval occupation, collapse/demolition and recent times.

2. INTRODUCTION

As seasonal work on the Achanduin excavation progressed between 1970 and 1975, information was provided to the RCAHMS team conducting the Argyll survey and summary updates were posted annually in *Discovery and Excavation Scotland*. The RCAHMS survey of what was then usually named Achadun Castle was published in 1975, in the second volume of the *Inventory of Argyll* series (RCAHMS 1975: 168–71, no. 276). By about 1977, DJT had



Illus 1 Dennis John Turner, 1932–2013
(© Euan Turner)

drafted a report on the archaeological excavations that he had directed, and he had assembled a number of specialist reports. Finished graphic illustrations were prepared in the early 1980s, but by then DJT's main focus of attention had shifted almost completely to the historical background. This became the subject of a separate paper (Turner 1998), but in the following decade he resumed work on the draft archaeological report, producing several further word-processed recensions of what he was obviously envisaging as a full-length monograph.

However, by the date of DJT's death in early 2013 (Renn 2013–14; Guy 2013–14; Illus 1) the report still remained an incomplete draft with many gaps to be filled, sub-themes to be pursued and overlapping texts to be concorded. Despite these limitations, aware of the importance of the excavation, especially of the artefacts, and out of respect for their late friend, the authors agreed to attempt to bring as much of the work as they could to a published conclusion.

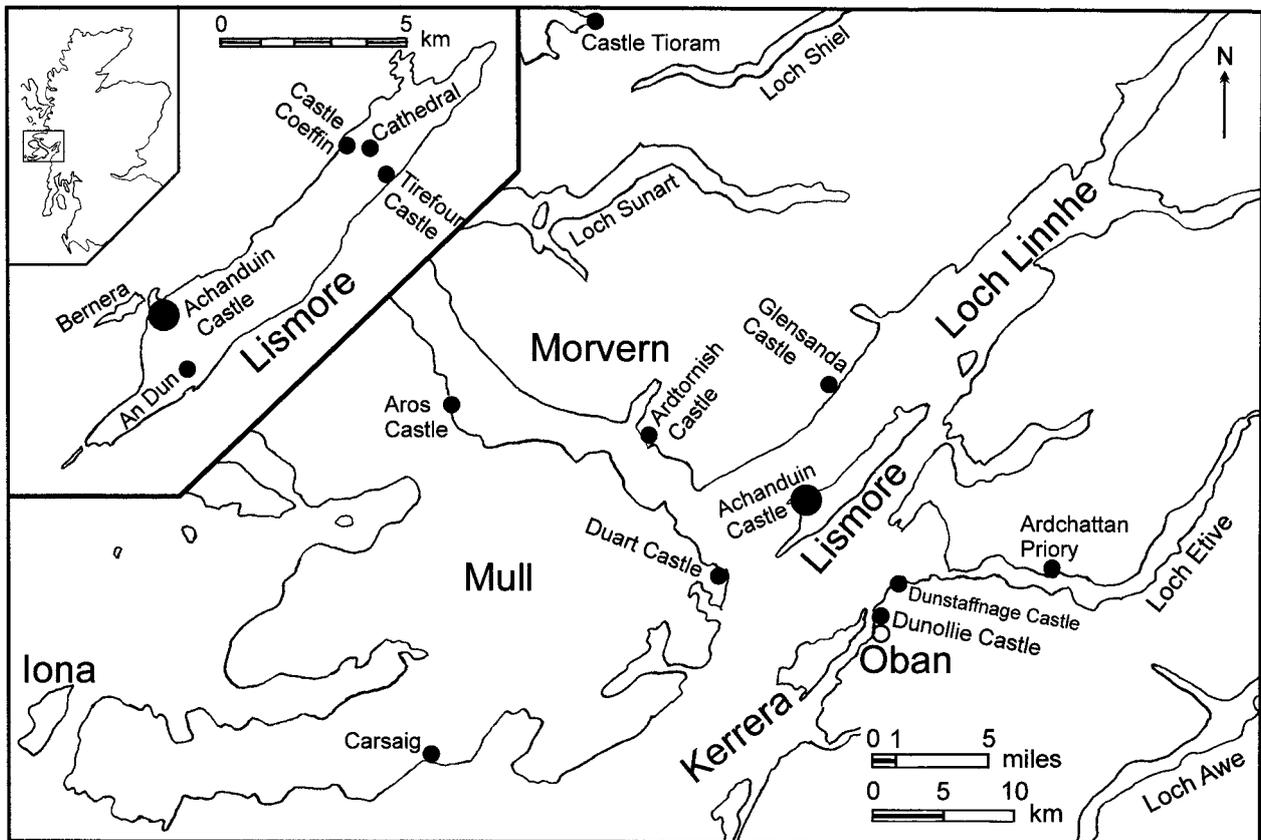
A first careful review of the material revealed that the illustrations and specialist reports had not been integrated with the main text, and that, whilst there was a full discussion of the findings, an account of the actual conduct of the excavations was lacking and would have to be reconstructed from field notes and sketches. Given these and other deficiencies, the authors decided, in consultation with DJT's literary executor, Audrey Monk, that the only feasible way of bringing the incomplete work into the public domain was to reduce its scope from a monograph to an edited article. Further discussions with the Society's editorial team led to an agreement

to publish a preliminary summary account in the Society's *Proceedings* (Caldwell, Stell & Turner 2015) followed by this fuller report as a SAIR. This dual approach, focusing strictly upon the salient features of the excavation itself and upon the artefacts recovered, has necessarily involved summarising or setting aside some of what DJT had intended as discursive chapters on the historical background, the local maritime context and the possible analogies and ancestry of the castle's architecture, together with equally wide-ranging would-be appendices on masons' marks and timber undercrofts. All of this material will be found in the full excavation archive which has been lodged in Historic Environment Scotland, and this archive has also been accompanied by other research papers and illustrations, mainly on medieval West Highland history and archaeology, to form an accessible Dennis Turner Scottish collection, complementing his Coll archive which is already lodged at Breacachadh Castle (Stell 2013–14).

The work at Achanduin was undertaken long before the days of research designs and desk-top assessments. The purpose was quite simply to examine and date

an apparently little-altered but much-ruined example of a small rectangular enclosure castle (RCAHMS 1975: 168–71, no. 276; Illus 2–5). Castles of this type had previously been discussed by Dunbar and Duncan (1971: 7–13) and had been considered by them to fall into two typological groups. Achanduin is one of the group characterised by an enclosure 19–25m square: others in this group included Castle Sween, Innis Chonnell, Duart (all Argyll) and Castle Roy (Inverness-shire). The second group comprised larger enclosures – around 36m square – such as Tarbert (Argyll), Kincardine and Kinclaven (Perthshire). The authors had suggested that both classes of rectangular courtyard castles 'typologically ... precede the developed enclosure castles of the later 13th century, such as Inverlochy and Lochindorb, with their salient angle towers of circular plan and ... they may tentatively be ascribed to the 12th or early 13th century' (ibid: 8).

Dunbar and Duncan provided historical arguments to support this dating in respect of Tarbert, Kincardine and Kinclaven, while Castle Sween and Innis Chonnell could also be accepted as



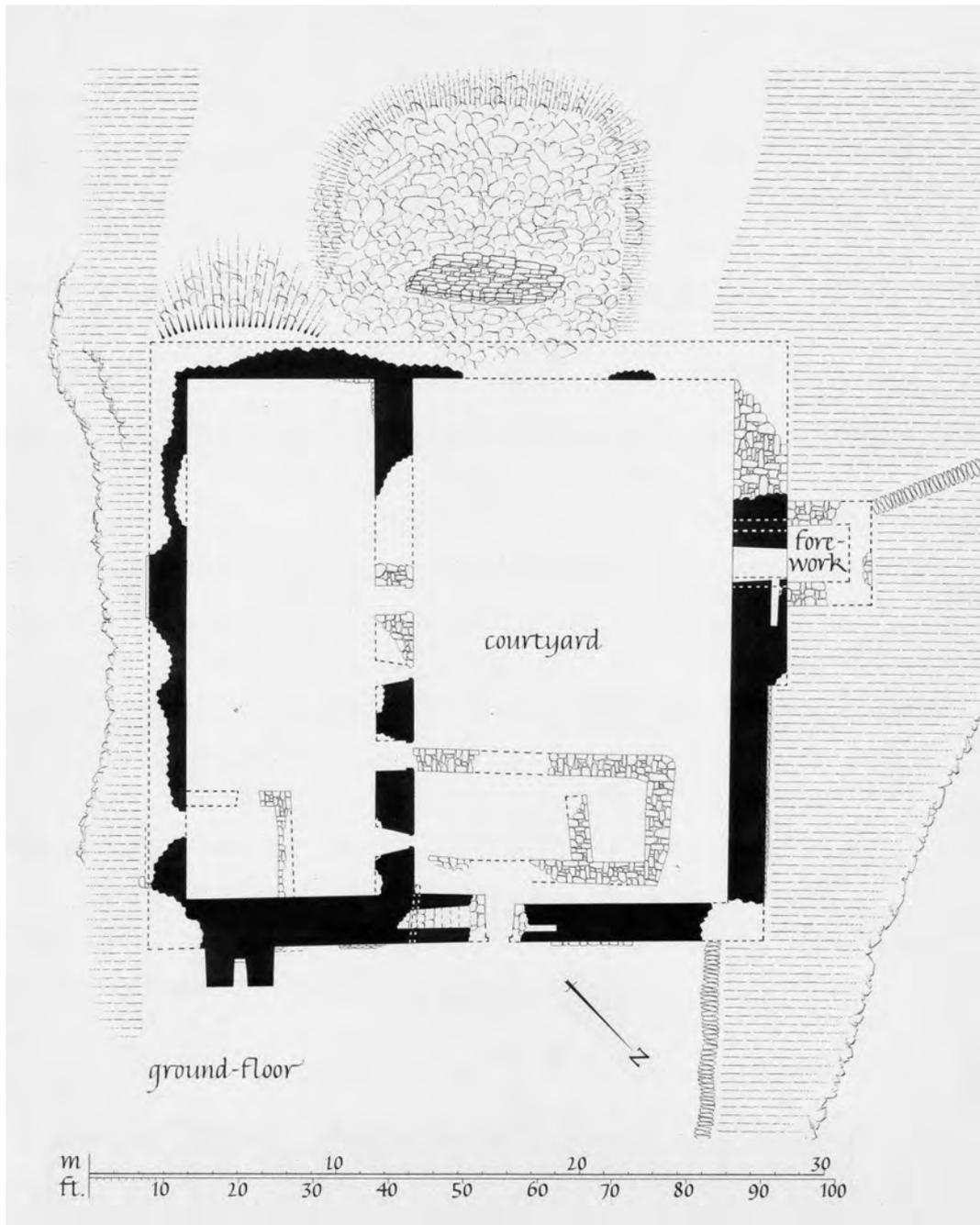
Illus 2 The western seaboard showing the location of Achanduin Castle, Lismore



Illus 3 General view from north, 1970 and published in 1975 in RCAHMS, *Inventory of Argyll*, 2, Plate 37A (© RCAHMS. Licensor www.rcahms.gov.uk SC 715133)



Illus 4 Distant view from north-east, c 1970



Illus 5 Ground plan as surveyed in 1971 and published in 1975 in RCAHMS, *Inventory of Argyll*, 2, Fig. 159 (© RCAHMS. Licensor www.rcahms.gov.uk DP 037606)

relatively early. Ardrossan Castle, Ayrshire (Caldwell 1971–2: 208), might be seen as a development of the smaller type, while some hall-and-enclosure castles in Argyll, such as Aros on Mull (MacGibbon & Ross 1889: 125; RCAHMS 1980: 173–7, no. 333) and the second phase of Skipness (RCAHMS 1971: 165–78, no. 314) have many points in common with the type. Castle Sween and Innis Chonnell have been dated to *c* 1200 and the first half of the 13th century respectively (RCAHMS 1992: 245–59, no. 119;

RCAHMS 1975: 223–31, no. 292), while the second phase of Skipness probably dates from the end of the 13th or early 14th century, a date-range that raises questions which the provision of a date by excavation for Achanduin might be expected to help answer.

Two of the major sections of the report that follows, one a **Descriptive Analysis of Structures and Excavated Areas** (section 6, p. 22), the other a **General Discussion and Some Conclusions** (section 9, p. 55), are specifically credited to DJT.

The authors felt it important to report DJT's views as accurately as possible. Another section, **Observations on the Excavations** (section 10, p. 58), is labelled as the authors' work to make it clear that the ideas expressed were never discussed by them with DJT. He may or may not have agreed with all that is suggested.

3. PHYSICAL CONTEXT

3.1 Geology

The island of Lismore is largely comprised of hard Dalradian limestone which gives rise to a soil and landscape unique in this part of the Highlands. The well-drained hillsides with their fertile soils are covered in short grass, cropped by grazing animals, and are renowned for the wild flowers that thrive on the limey conditions. The highly folded Lismore limestone outcrops freely in the vicinity of the Achanduin site, particularly in the sea cliffs, and is used in the rubble construction of the castle (Illus 6–7).

Intrusions, belonging to the Tertiary sequence of igneous rocks, occur in the form of regional dykes emanating chiefly from the volcanic island of Mull. Two visually different basalts can be identified in the castle walls but both types were found by the late G H Collins of the British Geological Survey in the same basalt sill at the head of Bernera Bay some 150m from the castle. Collins also identified part of this sill as a site where quarrying had apparently taken place (Collins, pers comm).¹

Most of the freestone dressings used in window, door and garderobe openings have been robbed: those that remain are mainly of a coarse sandstone, reportedly matched by Collins with quarry sources in the vicinity of Ardtornish, Morvern. The chamfered rybats from the north-east door of the castle were identified by Collins as being specifically of Carboniferous sandstone from Inninmore Bay, Ardtornish, Morvern (RCAHMS 1980: 250, no. 383). Freestone from quarries in the Ardtornish area was also used at Castle Coeffin, also on Lismore (RCAHMS 1975: 184–7 at 184, no. 282), the former cathedral on Lismore (ibid: 156–63 at 156, no. 267), Dunstaffnage Castle (ibid: 198–211 at 199, no. 287), Ardchattan Priory (ibid: 99–115 at 101, no. 217), and Innis Chonnell Castle (ibid: 223–31 at 225, no. 292). In the excavation assemblage of dressed stones (see below, **Architectural fragments**) there is also



Illus 6 Aerial view from west, 1977 (© British Geological Survey/NERC. Licensor www.scran.ac.uk 000-000-147-870-R)



Illus 7 Cliffs on the north-western flank of the site, c 1970

at least one white fine-grained sandstone, probably from Carsaig Bay, Mull (RCAHMS 1980: 248–9, no. 380 and refs cited). This was an identifiable source of freestone likewise used for many churches and castles in the region, most notably at Iona Abbey but also including Dunstaffnage Castle and Ardchattan Priory among those listed above.²

In the vicinity of Achanduin there is much evidence for glaciation. The most prominent features are the broad, rocky platforms and raised beaches

backed by cliffs which almost encircle Lismore. They are thought to have been created during a short-lived return to glacial conditions which occurred between 12,500 and 11,500 years ago, when the sea-level had dropped almost to its present position.

3.2 Local topography

In the Middle Ages, Scotland's western seaboard was for the most part linked not by roads but by the sea (Stell 1988: 26–30; Illus 2). This was the super highway of the day, which tied communities together and created connections between places that, even today, are frustratingly hard to join together by land transport. Internal communication remained poor and Lorn was evidently in a fairly primitive condition until at least the second half of the 18th century. General Roy's military survey shows all the centres of population in the area, including Oban, as simple hamlets (Roy 1747–55).

The predominance of marine transport has long been observed and commented on. Indeed, the term 'Hebridean galley-castles' has been coined (Macneil 2006) to describe the many castles of the Hebrides and the adjacent mainland which, directly or by portage, were close enough to the sea to have been significantly influenced by the existence of galleys or birlinns. Achanduin clearly falls within this maritime group.

Even today, the Bay of Oban can be seen as a 'cross roads' for marine traffic: to the south-east is the land mass of Lorn, penetrated by Loch Etive and containing Loch Awe which is a virtual inland sea; to the south-west is the Sound of Kerrera with complex island chains beyond; to the north-west is the Sound of Mull, while the Great Glen runs north-east. At the mouth of the Great Glen is the fjord of Loch Linnhe and the Firth of Lorn, divided by the low, cigar-shaped island of Lismore. Lismore is said (Munro & Gittings 2006: 306) to have an area of 2,244 hectares (5,543 acres) and to rise to a height of 127m (417 feet) at Barr Mòr near the southern extremity of the island. During the 19th century, limestone was quarried and exported. The island's population has fallen to its present level of around 150 from a peak of 1,500 in the mid-19th century.

3.3 Castle location (Illus 2)

Achanduin Castle itself occupies the summit of a steep-sided, ridge-shaped limestone hill rising from the island's

main rock platform at a distance of some 200m from the north-west coast of Lismore and approximately 4km from the south-western tip of the island. The main axis of the hill runs, like that of the island itself, parallel to the Great Glen fault zone, from south-west to north-east.

The castle overlooks diminutive Bernera Island and the beaches of Bernera and Achanduin Bays. Beyond Bernera is the open water of the Sound of Mull, with Duart Castle on Mull clearly visible in reasonable weather. Bernera and Achanduin Bays are two small but sheltered anchorages facing in opposite directions and separated by a sloping shingle beach up and over which vessels could be drawn, creating, in effect, an isthmus-like form of a *dòirlinn* or *tairbeart* portage. As the bays were immediately below Achanduin Castle, they would have provided two small but undoubtedly convenient facilities, facing opposed wind directions and sheltered to some extent from westerly gales by Bernera Island.

Immediately outside the south-east and north-west walls of the castle, the ground falls precipitously: to the north-west there is a sheer cliff having a maximum height of some 20m (Illus 3–4, 6–7), while the south-eastern flank, although less precipitous, is also extremely steep. The approach from the north-east, although steady, is also fairly steep, and only that from the south-west is easily negotiated. An approach from this latter direction would have been graded and it may be surmised that this was the route along which building stone would have been transported, probably dragged on sleds.

A steeper slope from the western corner of the enclosure leads north-west via a gully to a low point in the sea-facing cliffs, where a rough, steep but well-worn stair descends to the 25-foot (7.6-m) beach, the main rock platform, and thence to the head of Bernera Bay. At a distance of 50m NNE of the north-eastern wall of the enclosure, another well-worn path descends the sea-facing cliffs to a spring at the base of the cliffs, the closest source of fresh water that has been located. A small area of boggy ground approximately 30m west of the castle may represent the site of a closer spring available in medieval times.

4. HISTORICAL BACKGROUND³

The thinly documented history of Achanduin Castle was summarised in the RCAHMS account

(RCAHMS 1975: 171), and subsequently discussed and revised in the excavator's paper on this subject (Turner 1998). DJT's central argument was that the bishop of Argyll, to whom the castle is usually attributed, was an unlikely builder of Achanduin, and that the castle was more likely to have been constructed by the local secular lords, the MacDougalls. The MacDougalls were the most powerful kindred in Argyll and the Isles by the mid-13th century, with the status of kings. Despite an attempt by King Alexander II of Scotland to clip their wings in a major invasion into their territories in 1249, they remained a force to be reckoned with into the early 14th century (Sellar 2004A, 2004B, 2004C). While subsequent private communications revealed to DJT that his interpretations on the building of Achanduin by the MacDougalls were not widely accepted, his thesis has remained unchallenged in print.

DJT considered that it was possible that Achanduin Castle may have been granted to the bishop in 1334, but, failing this, such a gift may have taken place when the MacDougalls returned to mainland Lorn more than a century later. Their return and their building of Dunollie Castle on the site of an ancient Dalriadic stronghold followed the grant in 1451 by John Stewart, Lord of Lorn, of 'Dunolly' and other lands to *John Alani de Lorn nominato Mak Dowil* (John Maol) and his son, John Maol being recognised as chief of the MacDougalls (Sellar 1986: 8; RCAHMS 1975: 194–8, no. 286). The MacDougalls had apparently abandoned Achanduin some time before this, but George Lauder, bishop of Argyll, certainly seems to have had possession of Achanduin Castle in 1452 and for a short time to have taken up occupation (Thomson 1819: 14–15; Thomson 1877: 50–1). DJT deduced that the castle had probably been given to the bishopric at an earlier date but that the bishops had not found much use for it, given that the archaeological evidence had suggested to him that there was little occupation of the castle from c 1400 through to comparatively modern times. To DJT, the events of 1452 seemed to imply that the bishop was an infrequent visitor to Lismore.⁴

DJT felt that there was enough circumstantial evidence to accept that Achanduin was one of the MacDougall strongholds of the 1290s, but that there was insufficient evidence to ascribe its construction

to the impecunious bishops of Argyll. To him, there was no certainty that the 2½ pennylands of 'Achacendun', part of 14 pennylands in 'Lesmore' granted by Eugenius [Ewen MacDougall] in 1240, did include the site of the castle, but it seemed more possible that the substantial 14th-century grants did so (Turner 1998: 649–50). He also felt that, as described and discussed below, the change in scale of building in the north corner of the castle enclosure might be most plausibly explained by the uncertainties of the early 1300s and, even more convincingly, by the sharp setback in MacDougall fortunes in and after 1308.

In 1307, the political situation had been transformed by the death of Edward I, King of England. From the very beginning of his reign, Edward II, the new English king, seems to have been able to call on John MacDougall of Argyll as his lieutenant, appointing him on 2 October 1307 as 'Sheriff of Argyll and Inchevall [the Hebrides] and guardian of these parts against the enemy'. However, as Edward was to find, MacDougall territorial strength was soon to be overwhelmed by the military campaigns of Robert Bruce. In October 1307, Bruce captured the Comyn stronghold at Inverlochy, and in 1308 he carried the attack to the MacDougalls of Lorn in their own heartlands, John MacDougall writing to Edward apprising him of the situation (Bain 1887: 16; Barrow 1988: 179; Barrow 1999). The Battle of Ben Cruachan, formerly known as the Battle of the Pass of Brander (Duncan 1997: 362–7; Duncan 1999), in 1308 and the fall of Dunstaffnage in 1308 or 1309 led to the forfeiture of Alexander, Lord of Argyll, and his son, John.

DJT considered it notable that in all the lists of redistributed lands of the MacDougall lordship, Lismore alone was never once mentioned. He concluded that it was possible that, while most of the property was stripped from the family, they may have been allowed to retain Lismore. He could envisage Achanduin and Coeffin being occupied by MacDougalls throughout the 14th and possibly into the 15th century, whilst acknowledging that not much is heard about the MacDougalls or of the bishop at that time.

He further considered that the MacDougalls may not have been formally exiled but sought asylum at their own discretion at the English court, along with their 'personal' bishop. On 1 April 1310, Edward

II ordered money for the payment of the men of Alexander and John ‘serving in Ireland’ (Bain 1887: 26ff), and similar payments of 50 marks each were made to Alexander and John ‘for their sustenance’. On 16 June 1310, both John and his father appeared at Westminster for a Council meeting with Edward. On 20 July 1310, Edward arranged for money and victuals for Alexander and his two sons, John and Duncan. Alexander of Lorn died around December 1310 and John in September 1316.⁵

Nothing could disguise the fact that between 1309 and 1316 John MacDougall was a beaten man, conducting a forlorn campaign to recover his position in Argyll. He lived in exile, his family and some of his friends and retainers with him until his death in September 1316. He had one or two boats of his own but not enough, even with English and Irish reinforcements, to stop either Edward Bruce’s invasion of Ireland or to carry the war to the enemy. His power base had been mainland Argyll, and for Edward II he had proved to be a broken reed. Either Edward totally misjudged the political balance of power in the Hebrides or had mistakenly hoped to turn the MacDonalds. They remained attached to the Bruce faction and, in the long term, this was to consolidate the political primacy of the Lordship of the Isles for the next two centuries.⁶ DJT’s previous paper (Turner 1998) took the history of the Argyll see to the documented visit by the bishop to Lismore and to the castle of Achanduin in 1452. From that time onward, if not before, the bishops of Argyll seem to have preferred to reside occasionally at Dunoon (Dowden 1912: 386; RCAHMS 1992: 273–6 at 274, no. 127), while the construction between 1508 and 1512 by Bishop David Hamilton of a castle at Saddell in Kintyre (RCAHMS 1971: 161–5, no. 313) may be seen as ending any residual interests the bishops may have had in the castle on Lismore.

As first pointed out by Carmichael (Carmichael 1948: 122; see also Hay 2009: 104–5), in the 1630s Sir James Livingston of Skirling, Keeper of the Privy Seal, received a lease of the temporalities of the bishopric of Argyll from Charles I and was said to have resided at Achanduin in that period. Although RCAHMS (RCAHMS 1975: 171, no. 276) could find no documented authority for this tradition, an entry under the great seal ratified such grants made in favour of Livingston in 1641 and 1642 and his

assignment of the spiritualities and temporalities to the Marquess of Argyll in 1648 (Thomson 1897: 708–9, no. 1903). Indeed, in 1666 the farm of Achanduin was in the possession of the ninth Earl of Argyll, who wadset it to Colin Campbell of Loch Nell, but there is no mention of the castle in the transaction (Campbell 1933–4: 2, no. 1321). There is a local tradition that Hector Maclaine of the Lochbuie family (*c.* 1605–87), who was appointed bishop of Argyll in about 1680 and was the last incumbent before the Revolution of 1688–9, unlike his predecessors, maintained his seat in Lismore and occupied what is referred to in a secondary source (Carmichael 1948: 132) as the bishop’s palace at Achanduin. DJT was unable to identify a primary authority for this tradition.

5. EXCAVATION AIMS AND METHODS

Unfortunately, none of the many word-processed recensions drafted by DJT contains a coherent account of how the Achanduin Castle excavation was actually conducted. Throughout these drafts his attention was focused almost exclusively on interpretations and discursive analyses of the historical background and, to a lesser extent, the archaeological evidence, and one has to assume that he was carrying forward a basic account of the excavation itself as a final instalment, sadly never to be completed. Obviously lacking his first-hand recall, the authors considered that an attempt to fill this gap was essential in order to convey some sense of the excavator’s thought processes, methodology, progress and results.

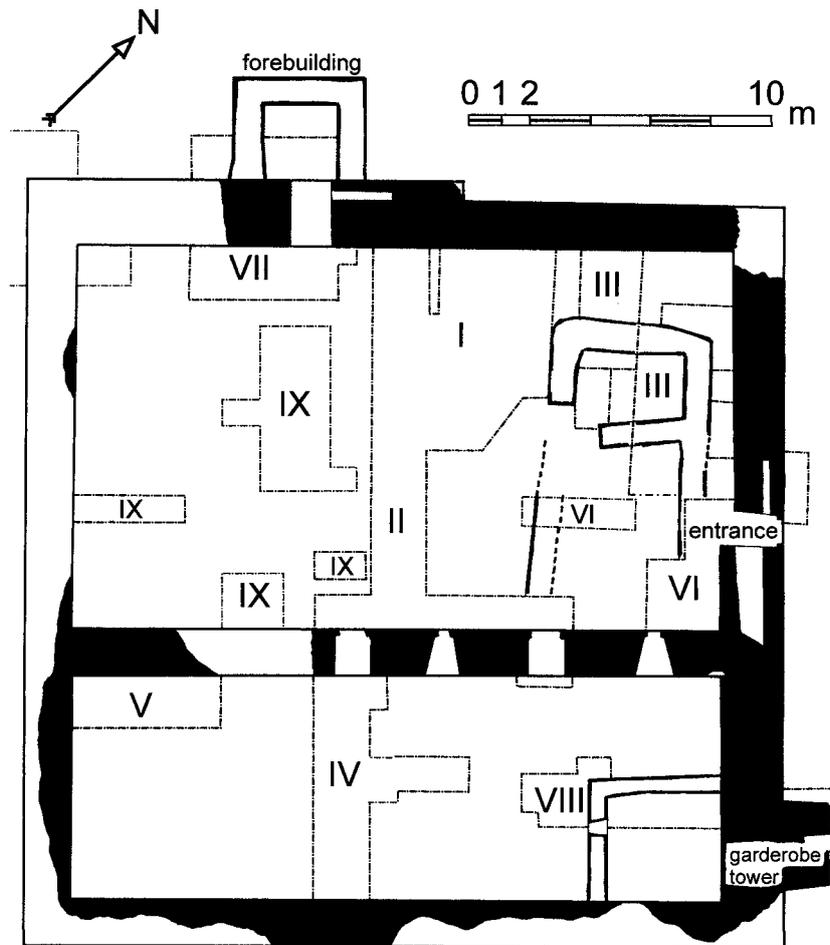
In order to reconstruct such an account, the authors have had to go back to DJT’s primary manuscripts, most notably his field notes and his season-by-season reviews, and to extract references from these sources that appear to be key to a chronological and spatial understanding of the conduct of the excavation. The summary overall picture that emerges from this evidence is that the excavations extended over six seasons between 1970 and 1975, each season usually consisting of a period of up to three weeks, and in two cases four weeks, centred usually upon the month of August. During these seasons, different parts of the interior of the castle were excavated, the trenches being located in

nine main areas which were designated Areas I–IX, some with sub-areas (Illus 8, 9). Additionally, the forebuilding, eastern garderobe tower and the north-eastern entrance were investigated in the 1972–3 seasons (Illus 24, 25), and in 1975 an abortive attempt was made to excavate part of what he referred to as ‘external building Q’, a structure that had been surveyed in the previous season. It was apparently a ruined building at the bottom of the cliff to the west of the castle. However, there is little or nothing that can be said of the work carried out at the garderobe tower and at ‘building Q’.

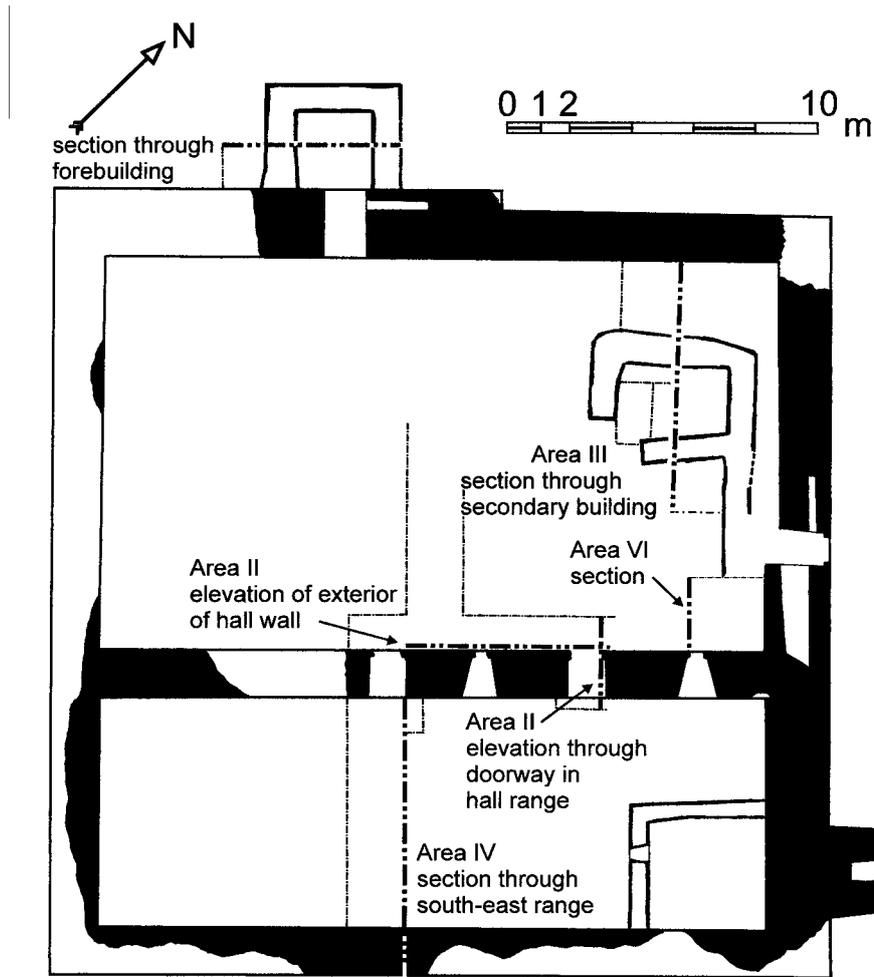
The word-processed notes available to the authors contain only the briefest reference to the deposits and features uncovered by the excavation. It appears that a list of these and an overview and analysis of the excavated deposits was a low priority for the excavator, and another that, sadly, he never got around to realising. There is no doubt that DJT was a

competent excavator who gave much careful thought to the interpretation of what he was uncovering. It must be remembered, however, that he was working at the castle before many of the techniques of recording that archaeologists now take for granted were fully developed. While he did number the finds and samples collected from the excavations using a running series of Roman numerals, DJT did not number contexts nor produce matrices to show their relationships to each other. The following overview and interpretation has been derived by the authors from plans and sections and descriptions recording the contexts for finds.

The excavation archive includes plans, sections and slides of the areas excavated, but none of the plans and sections (all in pencil) had been prepared for publication. We have selected those which seem to us to illustrate in a comprehensible way what was excavated, adding scales and printed versions



Illus 8 Ground plan showing layout of excavated areas



Illus 9 Ground plan showing location of sections illustrated in DJT's report

Table 1 Excavated deposits: an overview of the location of layers and features

Interpretation	Description	Location
<i>Pre-castle occupation</i>	occupation deposit wall foundation	Area I
<i>Erection of castle</i>	crude metalled surface (cobble) over bedrock	All areas
<i>Medieval occupation</i>	complex occupation deposits and floor surfaces house A and house B	Most of site Areas III, VI
<i>Abandonment</i>	black/grey earth (soil, possibly cultivated)	Most of site
<i>Post-medieval occupation</i>	midden containing marine shells house C	Areas VI, IX Areas III, VI
<i>Collapse, demolition</i>	tumbled masonry, mortar	All areas
<i>Present time</i>	turf and topsoil	All areas

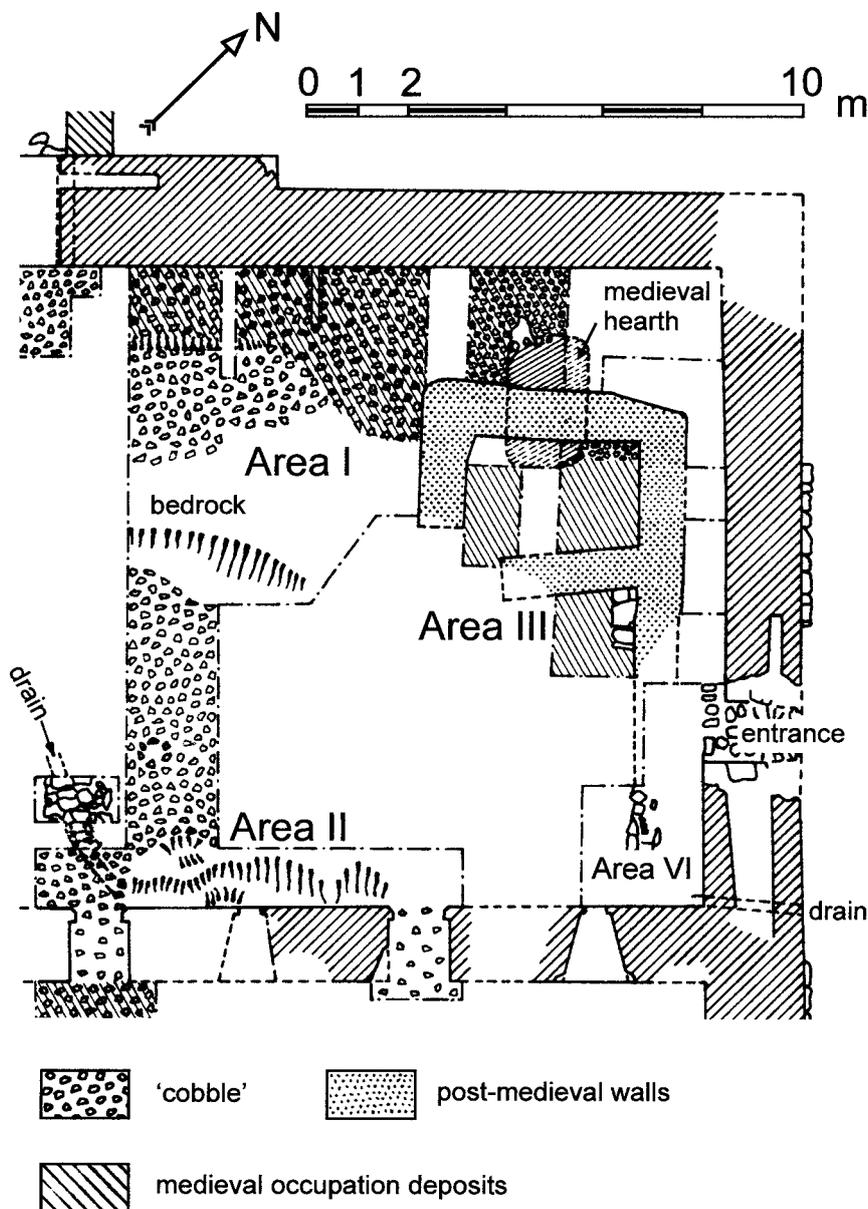
of pencil inscriptions, but otherwise leaving them unaltered. Illus 8 and 9 show the locations of excavated areas and the drawn sections included in this report. DJT was working in imperial measurements, and the ranging rods featured in the images of the site have divisions in feet.

The authors considered, but dismissed, the idea that they might reconstruct a detailed numbered sequence of contexts themselves. Apart from the obvious dangers of them misunderstanding DJT's excavation archive, any such reconstruction would be nigh impossible to apply across the full range and

complexity of the site records. In lieu of this they offer Table 1 as a guide to the overall sequence of events, as far as it can be reconstructed from the site archive.

5.1 An overview of the excavated areas

The following area-by-area outline has been pieced together from entries in the field notes and seasonal reviews, but we are conscious that, even as an outline, this is incomplete, given that several features which are not shown on sections and plans are not adequately covered.



Illus 10 Plan of excavated Areas I-III and VI

5.1.1 Area I

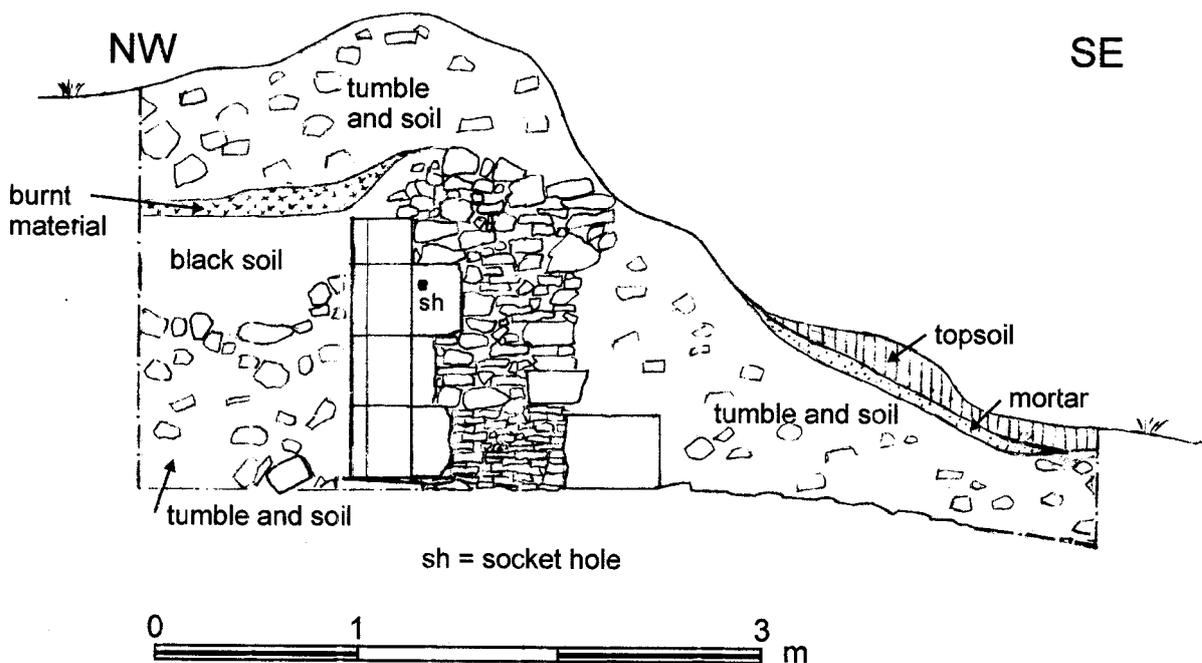
Area I (1970–3; Illus 10 and 11) was opened on 16 August 1970 against the interior of the north-western castle wall below the entrances to the garderobes. It was 20 feet (6.10m) square against the garderobe wall with its south-western side 32 feet (9.75m) from the inner face of the south-western wall of the courtyard. On 27 August, a trench measuring six feet (1.83m) wide was laid out along the south-western edge of Area I, and was designated Area I-SW. In the following season, on 24 August 1971, a trench measuring three feet (91cm) wide was set out along the north-eastern edge of the area and was designated Area I-NE, while further strips were laid out in the following year between 13 and 15 August 1972: a two-feet (61cm) strip to the south-west of I-NE was termed I-NE-1; another two-feet (61cm) strip north-east of the small baulk to the north-east of Area I-SW became I-SW-1; and reference was also made to a (presumably similar) I-SW-2 which was not defined. Area I-SW was the last part of Area I to be finally backfilled on 23 August 1973.

At the end of the 1970 season, taking excavation in this area and the neighbouring Area II into account, DJT noted the uncovering of occupation layers containing animal bones and metal objects,



Illus 11 View of collapsed masonry in excavated Area I from south, August 1970

overlying cobbling, on the north-west side of the courtyard. In the centre of the courtyard further cobbling was directly covered by accumulated humus and tumbled masonry, but there was no sign of an inner wall of a presumed north-west range. There was, however, other evidence for the possible presence of a substantial building here. Firstly, in the ‘black soil’ layer in this area there were several fragments of nails and rivets, possibly from a substantial wooden structure. Similar iron debris was also recovered in some quantity from the excavations in ‘tumble’ and ‘black soil’ in the neighbouring Area III. Secondly,



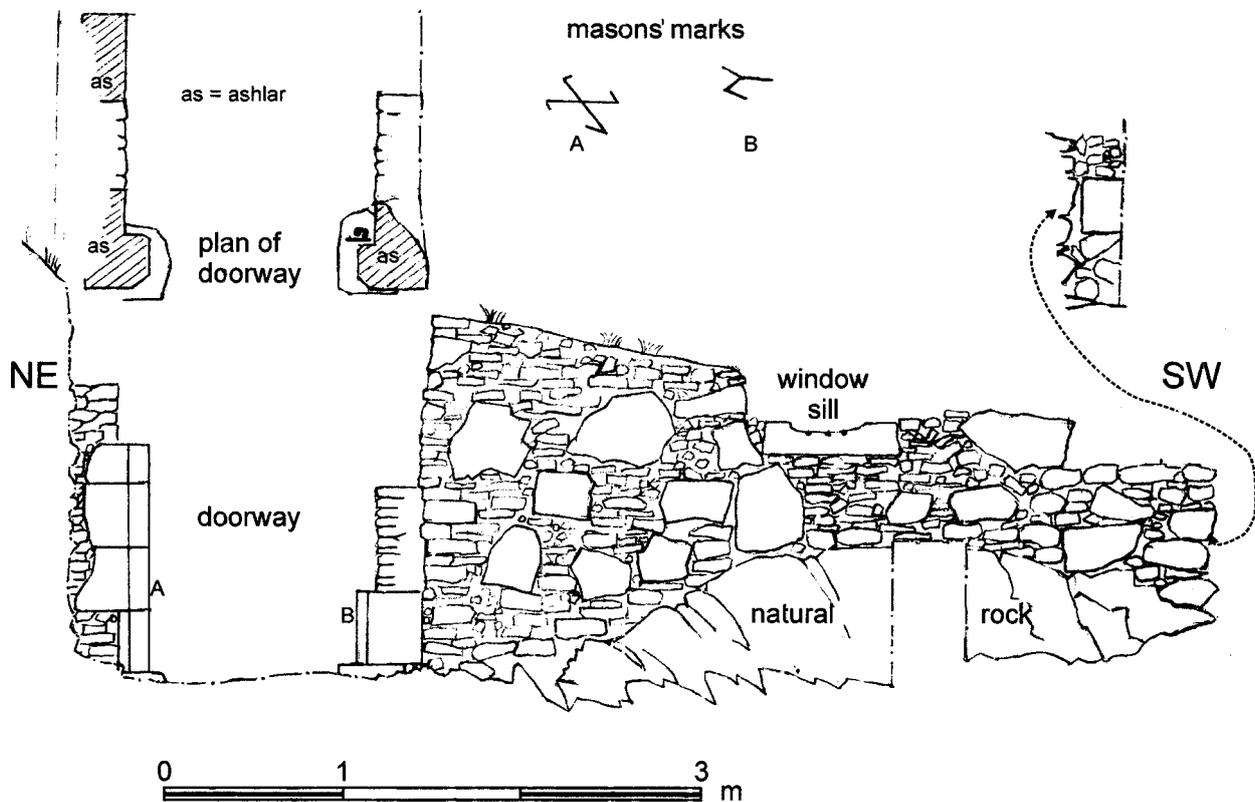
Illus 12 Section through hall doorway in excavated Area II

there were large quantities of charcoal and ‘burnt clay’, samples of which were retained. The charcoal, weighing a total of 0.14kg, appeared mostly to be fragments from worked wood, up to 4cm long, and was said to be ‘floor cover’. The ‘burnt clay’ consisted of two samples:

Area I-SW ‘occupation level’ (sample cliii): several fragments of burnt daub up to 9cm long, grass tempered, many with a smooth face. Total weight 0.54kg. Area I ‘lower black’ (sample clii): several fragments of burnt daub up to 7cm across, containing fragments of shell and pieces of gravel, some pieces with a smooth face. Total weight 1.7kg.

5.1.2 Area II

Area II (1970–3; Illus 10) began on 18 August 1970 as a trench measuring six feet (1.83m) wide running south-eastwards from Area I to the wall of the hall range, its south-western flank being a continuation of the south-western side of Area I. Four days later, on 22 August, a trench measuring four feet (1.22m) wide along the face of the hall range was started, all of which was backfilled between the following 2 and 4 September. Two seasons later, on 30 July 1972, about two feet (61cm) of backfill was removed from Area II, and a trench measuring four feet by twelve feet (1.22m by 3.66m) was laid out immediately



(Above) Illus 13 Elevation of external (north-west) face of south-east (hall) range in excavated Area II

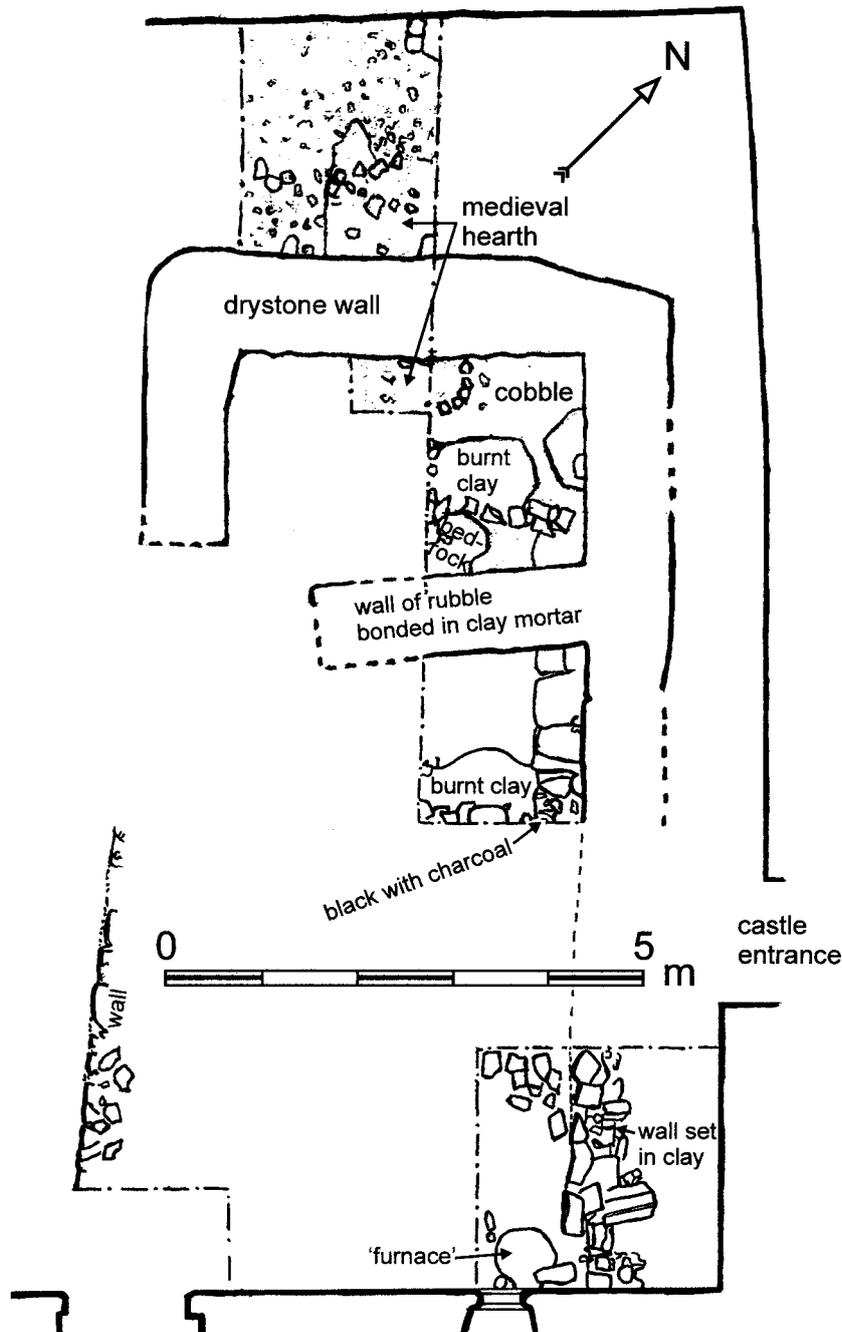
(Left) Illus 14 View from west of exposed external face of south-east (hall) range in excavated Area II, September 1970

to its south-west, the accompanying diagram designating it as Area II-A. All parts of Area II were finally infilled on 22–3 August 1973.

Illus 13 and 14 show the elevation of the external (north-west) face of the south-east (hall) range as excavated in Area II. Illus 12 is a section along the north-west jamb of the north-east door into the hall range. It shows a layer of ‘burnt material’ below the ‘tumble and soil’ enveloping the ruined wall, and above ‘black soil’ within the area of the secondary

building (relabelled as House C by the authors – see below) uncovered at the north-east side of the courtyard. This burnt material can be interpreted as a continuation of ‘bright orange burnt material’ within Area VI associated with an ‘ore-roasting furnace’ (see below).

A drain was encountered in the excavation of Area II-A. Its sides, top and bottom were formed of thin slabs of rock, enclosing a channel about 14cm or 15cm square. It was set with its capstones flush



Illus 15 Plan of excavated Areas III and VI

with the top of a deposit of ‘black (few stones)’, presumably representing a soil surface in the courtyard after the main medieval occupation of the castle. It was covered by a layer of tumble. Illus 19, taken from the interior of the hall range through the jambs of the south-west door, shows it in section adjacent to the doorway’s outer face. This drain turned to run along the exterior of the south-east range and it exited the castle adjacent to the entrance in the north-east corner. It, or another drain, was again encountered in Area IX-b in the courtyard, running approximately SSE to NNW, and in Area IX-a-c-d, evidently on the same alignment. The direction of flow of these drains was apparently towards the SSE and then towards the north-east.

5.1.3 Area III

Area III (1970–2, 1975; Illus 15) was also first opened up on 18 August 1970; a trench measuring six feet (1.83m) wide was laid out north-eastwards from Area I against the north-western wall of the castle. In the 1971 season a trench which was designated Area III-N traced the external face of the secondary building around the north corner on 19 August, and on 24 August an operation to clear ‘tumble’ outside the E corner was begun in Area III-E. Except for a square of burnt clay at the north corner of the south-eastern chamber, all parts of Area III were backfilled on 23 August 1972, but on 17 August 1975 trenches in Areas III-N and III-E were temporarily reopened and re-examined.

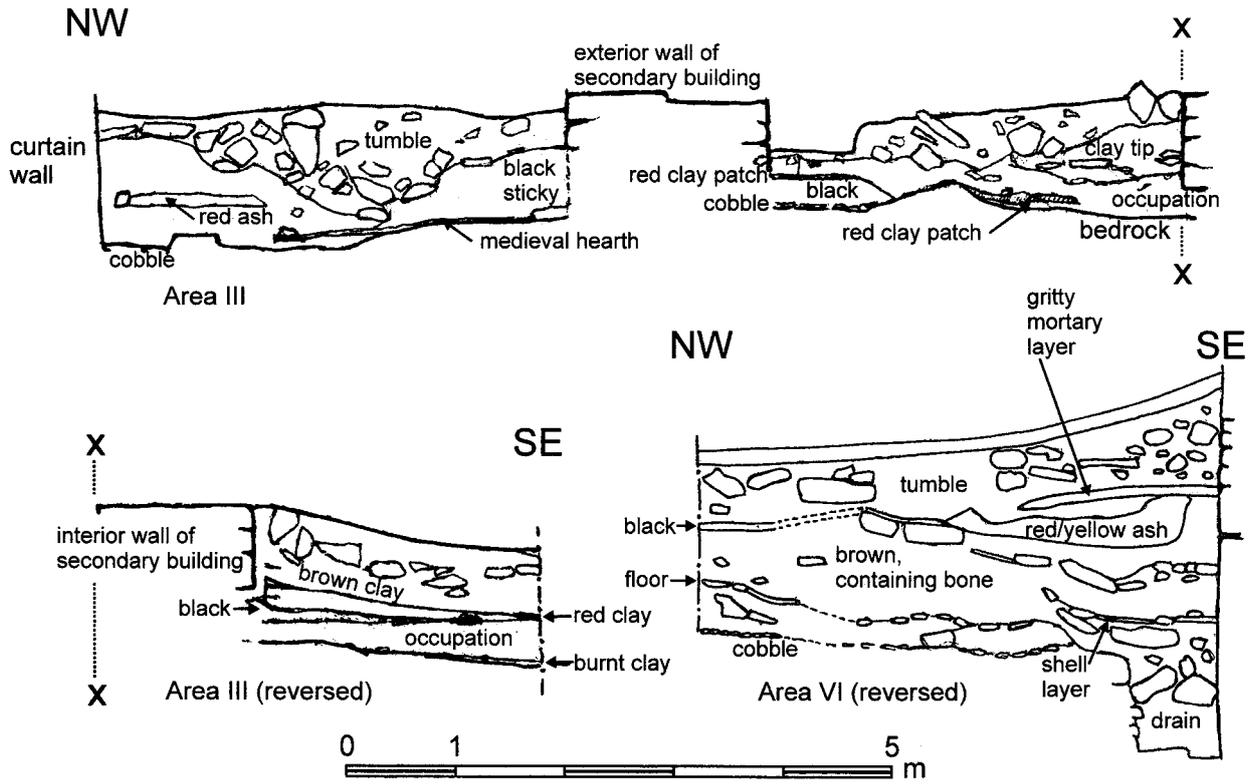
Unlike Areas I and II, the excavation of Area III led to the uncovering of substantial features, most notably the secondary building mentioned above (Illus 16, 17). It was sub-rectangular on plan with walls of drystone surviving a few courses high, and occupied a position parallel to the north-east enclosure wall. Excavation in Area III and later in Area VI established that it effectively blocked access to the north-east entrance gate and that it utilised the ruined courtyard wall of the hall range as its end wall. It measured about 9.5m by 3.5m internally, and its walls appeared to have been planted over medieval remains of occupation. A partition wall, dividing this building into two unequal chambers, was



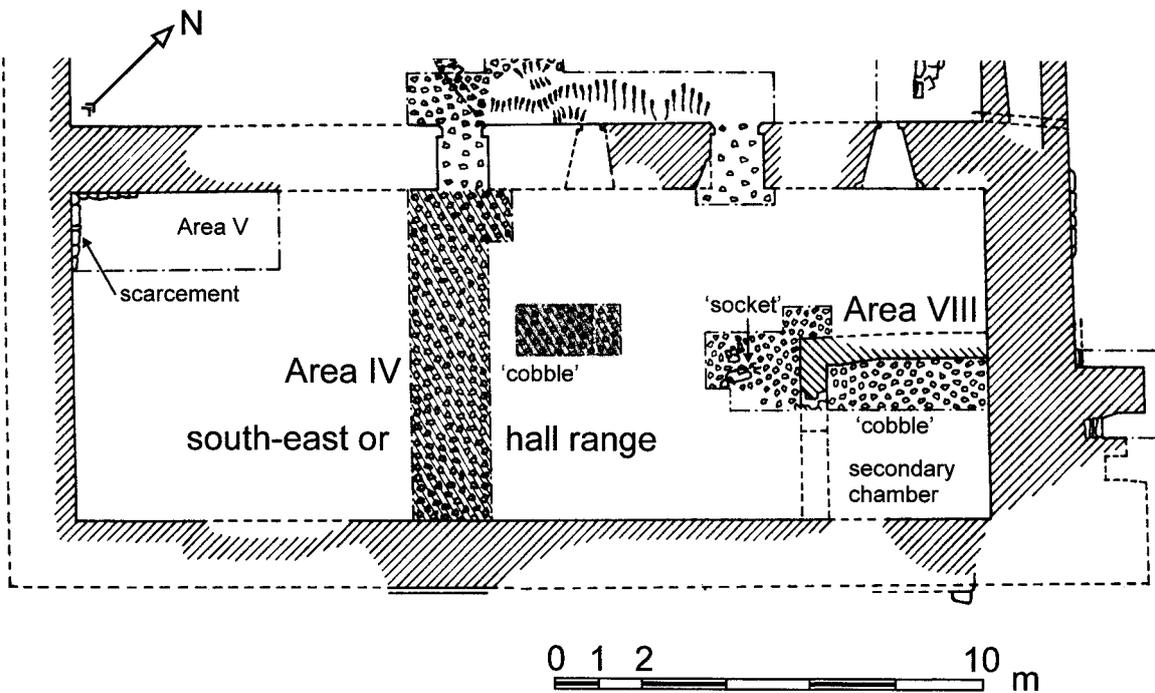
Illus 16 High-level view from east of excavated Area III, September 1971

described by RCAHMS (1975: 171) as being of clay-bonded rubble. DJT identified it as a later insertion. He also interpreted the walls of this secondary structure as ‘plinths’ for supporting turf walls and a thatched roof. The section drawing reproduced here as Illus 17 shows the interior of this building already stripped down to deposits of ‘tumble’ and ‘brown clay’.

DJT’s descriptive analysis (below) concluded that the castle builders intended to erect a range in the north corner of the courtyard, extending along the inner face of the north-west curtain, but that this was never built with substantial internal stone walls like the hall range along the south-east curtain. His discovery of a hearth in Area III, stratigraphically earlier than the walls of the secondary building, indicated to him that there actually was a medieval building here, perhaps with timber-framed walls. This hearth consisted of a rectangular patch of burning, measuring over one by two metres, set on ‘cobble’. DJT noted after the 1972 season that this cobbling was the top of a stony fill covering a large depression in the bedrock. A John Balliol halfpenny (**Coins and jettons**, no. 13) is said to come from ‘below rubble filling crevice of bedrock and forming pavement of courtyard’.



Illus 17 Sections in excavated Areas III and VI through secondary building and earlier deposits



Illus 18 Plan of excavated Areas IV, V and VIII in south-east (hall) range

5.1.4 Area IV

Area IV (1971–2, 1974–5; Illus 18, 19 and 20) was first opened on 15 August 1971, a trench measuring six feet (1.83m) wide and 16 feet (4.88m) long running across the hall range with a north-eastern edge in line with the south-western edges of Areas I and II, thus providing a continuous section. There is, however, a mismatch between the two segments of the section in Illus 20 which the authors have not attempted to resolve. The backfilling of 1 September 1971 was removed on 30 July 1972, and an eight-by-six-foot (2.44m by 1.83m) trench designated IV-A was laid out adjacent to the north-eastern

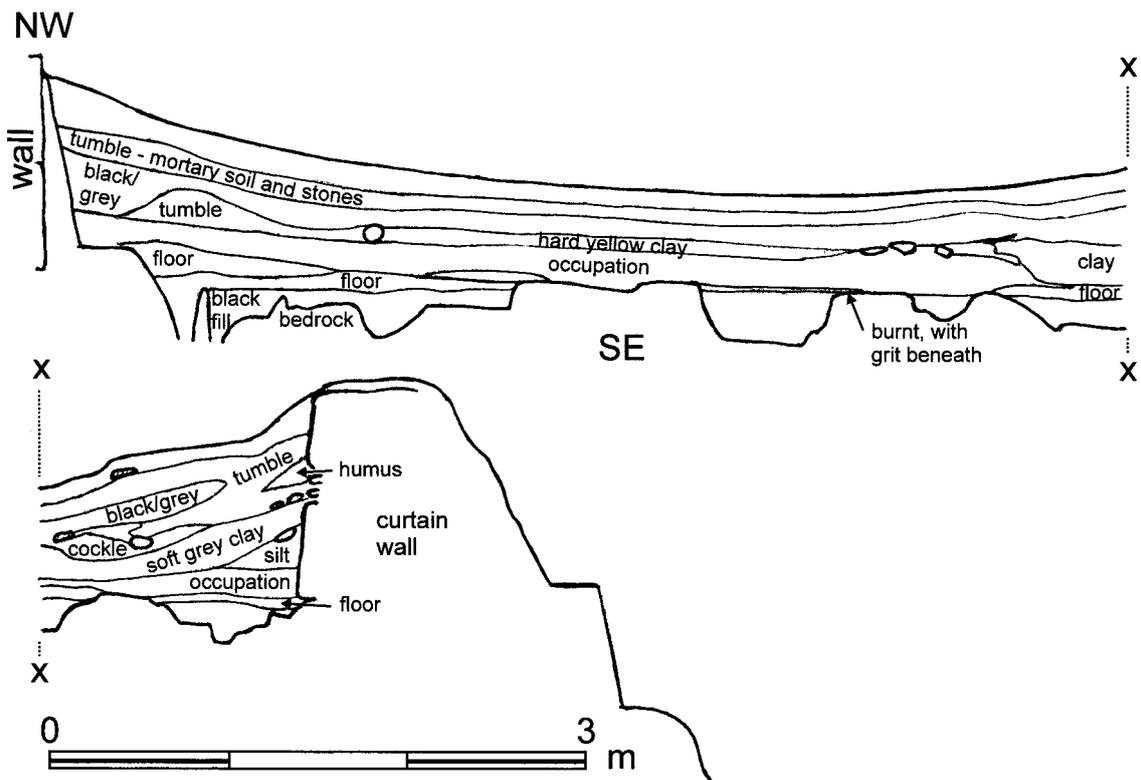
end of Area IV. Two seasons later, on 16 August 1974, an apparently new trench measuring five feet (1.52m) square was also laid out at the north-eastern end of Area IV, overlapping with Area VIII (below). This was backfilled on 27 August, and in the final season, on 24 August 1975, two further trenches, shown on a dimensionless diagram, were laid out and designated IV-75a and IV-75b.

Excavation of Area IV in 1971 led to the discovery of a second entrance into the hall range, identical to the one further to the north-east. All four of the checked rybats of the outer opening still in position had been badly damaged by stone robbers, which may explain why no masons' marks were detected



(Left) Illus 19 View from within south-east range through doorway, showing drain in Area II

(Below) Illus 20 Section through south-east (hall) range in excavated Area IV



upon them. DJT also noted that the rough cobble floor of this range had been patched and disturbed, and was covered by a dense layer of occupation material. From this were recovered three Edwardian pennies, two bone pegs, a whetstone, two augur bits and a Jew's harp (see finds report below). About 1.2kg of fragments of burnt clay daub were also recovered from this excavation, possibly part of an internal wall or an oven, though their exact provenances are not known.

5.1.5 Area V

Area V (1971, 1974–5; Illus 18) was a trench measuring six feet (1.83m) wide in the west corner of the hall range, opened on 17 August 1971, backfilled on 30 August, and reopened and re-examined between 4 and 23 August 1974 when it was finally backfilled. The final season's account referred to two trenches measuring five feet (1.52m) square having been laid out and designated V-75a and V-75b.

5.1.6 Area VI

Area VI (1971–2, 1974–5; Illus 15) was a trench measuring eight feet (2.44m) square in the eastern angle of the courtyard that was laid out on 19 August 1971. Backfilled on 2 September, the trench was re-examined between 1 and 23 August 1972 when it was covered with polythene and stones. It was reopened again on 4 August 1974, and on 13 August a new trench in this area was deturfed, the old one then being designated VI-71 and the new

one VI-74. Following a slight extension effected on 18 August, Area VI-74 was a trench 12 feet (3.66m) long by four feet (1.22m) wide, located 12 feet (3.66m) from the hall wall and nine feet (2.74m) from the courtyard wall east of the entrance. On 29 August 1974 it was infilled with stones to enable further examination, but when reopened on 17 August 1975, rainy weather conditions prevented any further work.

DJT identified the presence of an 'ore-roasting furnace' in the east corner of the secondary building. It was small and crudely constructed and utilised a window in the hall range as the position for a tuyère. Site drawings show this furnace as a shallow, oval pit, about 0.6m by 0.65m and 0.25m deep, adjacent to the almost complete vertical slit window at the north-east end of courtyard wall of the hall range. The level of the window sill was about the same as the bottom of the pit, which is described as having a base of ash and clinker.

Unfortunately, no metalworking debris from here is known to have been scientifically analysed, nor has any been identified amongst the finds from the excavations. DJT later noted in his brief excavation report in *Discovery and Excavation* (1975: 9) that this burnt area had been shown not to have had any metallurgical connection, and that it was then clear that these ash deposits pre-dated 'the secondary building' (House C – see below). A sample of ash from Area VI appears to be just that, with no metallic content.

Excavation in Area VI also led to the discovery of a drain (Illus 21), passing from the east corner of



Illus 21 Excavated Area VI from south-west, August 1974



Illus 22 Excavated Area VII from south-east, August 1972, showing castle entrance with drain to left and 'cobble' surface exposed

the courtyard under the curtain wall to emerge as an opening at ground level south-east of the entrance in the north-east wall. It extended south-westwards under the secondary building.

5.1.7 Area VII

Area VII (1972, 1974; Illus 22), adjacent to the gateway in the western sector of the castle courtyard, was opened up and excavated during the period 1–22 August 1972. Aligned with the castle wall and set 12 feet (3.66m) from its internal western angle, the trench measured 16 feet (4.88m) in length by six feet (1.83m) in width. Two seasons later, on 10 August 1974, a new trench was opened up in the western angle itself. Measuring six feet (1.83m) long and four feet (1.22m) wide, it was designated VII-74, and a corresponding trench measuring four feet (1.22m) wide, labelled VII-E, was cut around the exterior of the same angle. Both were infilled on 28 August 1974.

Illus 22 shows Area VII excavated down to a crude metallised surface ('cobble'). In the background can be seen the main castle entrance, with low to the left a drain, perhaps a continuation of the one encountered in Areas II and IX, exiting through the curtain wall. Little else is known of what was excavated in Area VII other than that it included 'superficial deposits' and a 'midden layer' or 'black midden soil'. DJT's descriptive analysis below mentions a rectangular depression, apparently in this trench, but there is no other record of it.

5.1.8 Area VIII

Area VIII (1972–3; Illus 18) was a trench measuring 20 feet (6.10m) by four feet (1.22m) wide which was laid out within the south-eastern hall range, aligned on the axis of the hall adjacent to its north-eastern end wall. Opened on 30 July 1972, the south-western end of the trench was extended on 4 August by two four-foot (1.22m) squares which traced the extent of a pebble floor that had been revealed. It was infilled on 20 August, and in the following season, on 5 September 1973, what appears to have been a new eight feet (2.44m) by four feet (1.22m) trench was dug along a similar alignment to Area VIII, 27 feet 6 inches (8.38m) from the inner face of the north-eastern wall of the

hall. Not accorded a separate sub-designation, it was infilled on 12 September, following the extraction of soil samples.

Excavation in Area VIII revealed a square chamber formed in the east corner of the south-east range by a wall which was noted by RCAHMS (1975: 170) as not bonded into the masonry of the north-east wall. The trench caught one side of the entrance in the south-west wall, with a post-hole at its outer corner, interpreted as having been for a door jamb. DJT regarded this chamber as of significantly later date than the construction of the castle, perhaps of the 14th century. Its wall appeared to be founded on the 'cobble' that went with the erection of the hall range. The difference in the deposits immediately above this surface – 'brown soil' outside and 'burned clay' inside – suggests to the authors that the chamber had a separate function, perhaps for food preparation.

Apparently set in the 'cobble' at the south-west end of Area VIII was a socket, defined by packing stones, which DJT identified as a support for a bressumer beam that carried the joists of an upper storey.

5.1.9 Area IX

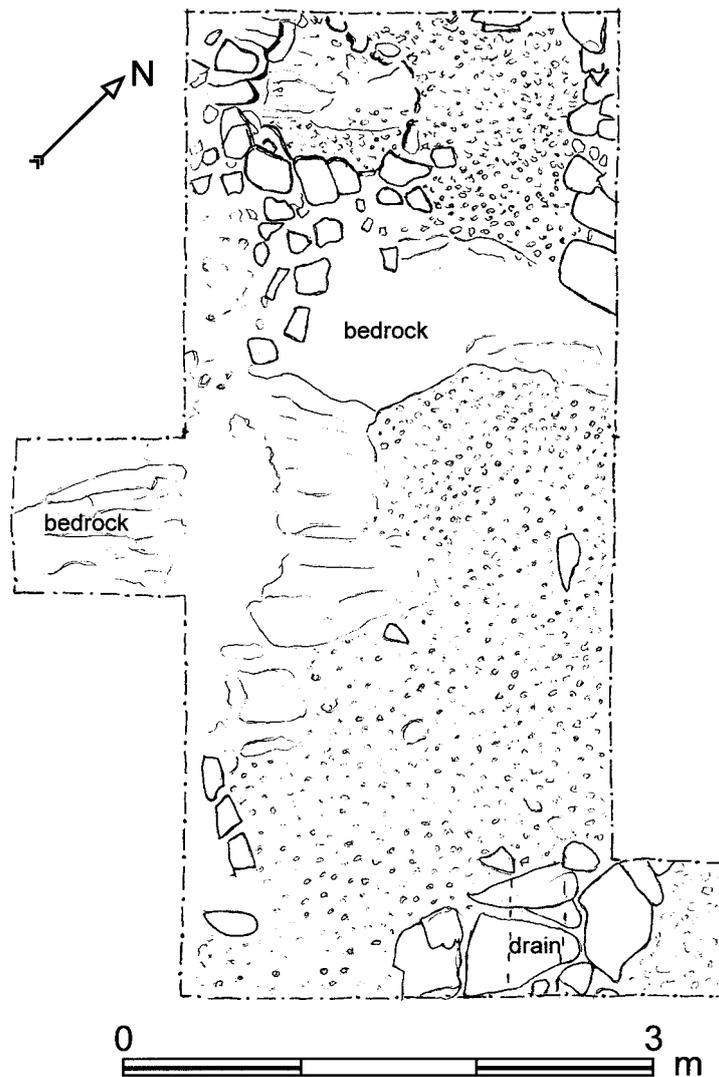
Area IX (1972–4; Illus 8) began as a small five feet (1.52m) by three feet (91cm) trench laid out on 6 August 1972 in order to further investigate the drain uncovered in Area II-A (see above). Located 26 feet (7.93m) from the south-western wall of the castle and nine feet (2.74m) from the outer face of the hall range, it was infilled on 17 August and was subsequently described as Area IX-72. In the following season, on 7 September 1973, another trench, 12 feet (3.66m) long and three feet (91cm) wide, was laid out immediately adjacent to the south-western castle wall, 12 feet (3.66m) from the outer face of the hall range. Covered in plastic sheeting and backfilled with stones on 13 September, what then became known as Area IX-73 was re-examined after 5 August 1974, and between then and 10 August four new trenches that were designated IX-a, IX-b, IX-c and IX-d were set out in its general vicinity. Trench IX-b, measuring six by four feet (1.83m by 1.22m), lay adjacent to the outer face of the hall range 16 feet (4.88m) from the south-western castle wall. The remaining three trenches, IX-a, IX-c, IX-d, were grouped north-west

of the original Area IX-72: all three feet (91cm) wide, they were respectively ten, ten and six feet (3.05m, 3.05m and 1.83m) long and 15, 23 and 31 feet (4.57m, 7.01m and 9.45m) from the outer face of the hall range. Trench IX-c was extended to 12 feet (3.66m) in length and was ultimately merged with both IX-a and IX-d to form a single Area IX-a-c-d that was infilled on 29 August 1974.

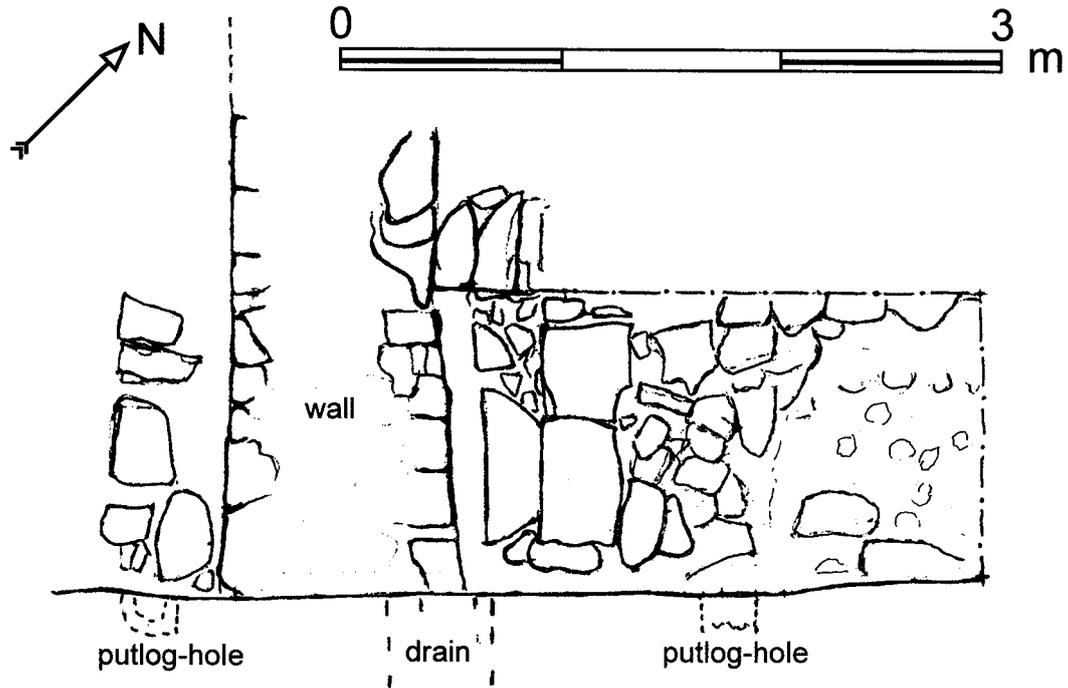
Information on features excavated in Area IX is very limited. In IX-73, a 'curb' (kerb), consisting of an alignment of stones parallel with the south-west wall and about 4.8m from it in the courtyard, was found to retain the cobble surface to the north-east, immediately under the turf. This trench was excavated down to bedrock between the kerb and the curtain wall.

A plan of excavated Area IX-a-c-d (Illus 23) appears to show the whole trench excavated down to a surface of bedrock with depressions filled in with deposits topped with crude metalling. The drain encountered in Area II can be seen in the east corner, probably just clipped by the baulk in the north corner. What appears to be a circular pit, of unknown date and function, occupies the west corner. It is lined with stones, and at an early stage in its excavation it was thought it might turn out to be a well.

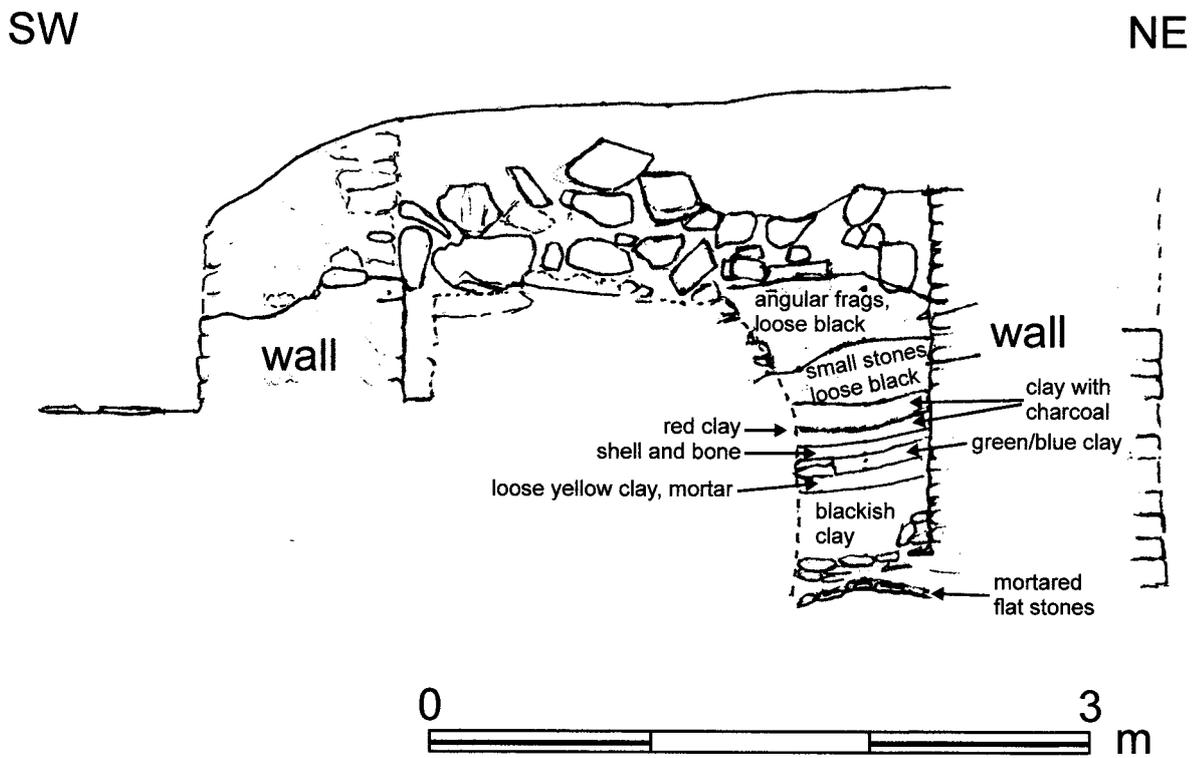
Outside these nine main areas, DJT identified three specific features which were excavated and defined to a greater or lesser extent during the 1972-3 seasons: (1) a forebuilding associated with the gateway in the north-western wall (Illus 24,



Illus 23 Plan of excavated Area IX-a-c-d



Illus 24 Plan of excavation in forebuilding



Illus 25 Section through the deposits in the excavated forebuilding

25); (2) a garderobe tower at the eastern corner of the castle (Illus 18); and (3) an entrance gateway in the centre of the north-eastern wall (Illus 10). Additionally, in August 1975, the final season, miscellaneous small trenches were opened in order to establish: (1) the nature of the outer wall face opposite Trench IX-73; (2) the level of the bedrock outside the north-eastern curtain wall opposite Area III-E; and (3) and (4) to check precise positions of hall wall faces in the southern angle and on the north-western side-wall, 20 feet (6.10m) from its south-western end. On 17 August 1975, a trench (Q1) was also laid across the south-western end of what DJT termed 'External Building Q', a structure that had been surveyed in 1974. Unfortunately, the excavations twice suffered overnight damage by cattle, and the results remained inconclusive.

5.1.10 Forebuilding

Prior to excavation, this projection on the outer face of the north-west curtain wall (Illus 8, 24) was seen and interpreted as a bastion-like platform outside a postern-gateway. That perception changed markedly

as a result of the archaeological work in this area, DJT's final interpretation being that this was the main castle entrance, equipped with a drawbridge restricting access, and that the forebuilding was, in fact, a stone-lined pit crossed by the drawbridge. His reinterpretation of this feature and his thinking about the entrances is set out in detail in the descriptive analysis (below).

6. DESCRIPTIVE ANALYSIS OF STRUCTURES AND EXCAVATED AREAS (DJT)

6.1 Exterior

Today, the structure of Achanduin Castle is ruinous but its one-time rectangular layout can still be readily identified, comprising a single enclosure or courtyard approximately 22m square and oriented so that its corners are close to the cardinal compass points (Illus 5). As a result of the natural fall of the rock surface, the south-eastern part of the site is about 1.5m lower than the north-western side of the courtyard. The enclosed area contained at least two ranges of buildings flanking a small courtyard: before



Illus 26 Interior of courtyard from south-west, 1972 and published in 1975 in RCAHMS, *Inventory of Argyll*, 2, Plate 38A (© RCAHMS. Licensor www.rcahms.gov.uk SC 1445519)

excavation, the buildings within the courtyard could only be seen as tumbled walling. A two-storeyed range along the south-east side of the courtyard was clear, while windows high in the north-east curtain and two large garderobes in the thickness of the north-west wall appear to have been provided for a substantial two-storeyed block in the north corner (Illus 26).

Excavation confirmed the presence of the south-eastern range, but failed to demonstrate that the two-storeyed buildings intended in the north angle of the courtyard had ever been built; perhaps only single-storeyed structures with either drystone, turf or timber-framed walls and an open hearth were all that had occupied that position in medieval times, and these are the subject of more detailed descriptions later in this report. Archaeological evidence indicated a construction date in the last decade of the 13th century or the very earliest years of the 14th century.

The enclosure was surrounded by a curtain wall varying in thickness from 1.4 to 2.4m, surviving in 1975 only along five-sixths of the north-eastern side and along the northern two-thirds of the north-west side: the remainder of the walls had collapsed and were represented only by a few buried courses and tumbled masonry. The greater part of the collapsed curtain walling had fallen outwards.

The castle had a small garderobe turret at the eastern corner. Some 8.8m south-east of the north-eastern entrance, the curtain-wall returns outwards for 1.6m to form a turret accommodating a garderobe chamber at first-floor level and a chute below: this was lit by a window of which one sandstone jamb remained in situ in 1975. A small window lighting the passage that gave access to the chamber, and two larger windows at first-floor level north-west of the entrance, had been completely destroyed externally.

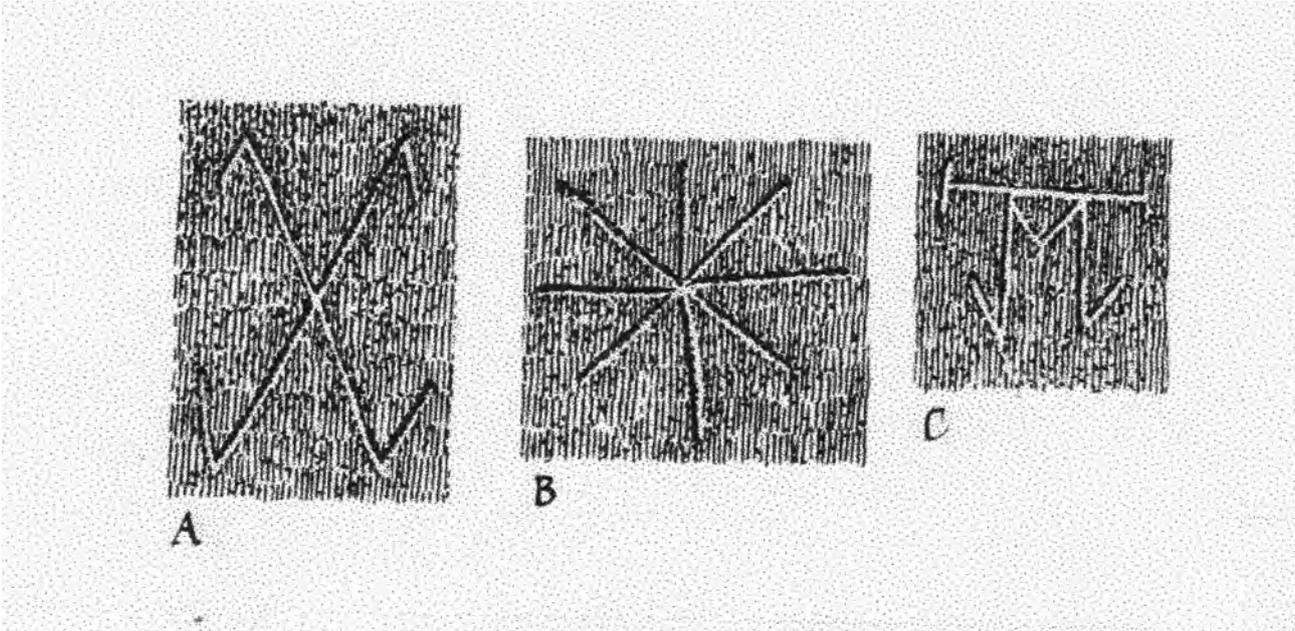
The masonry consists for the most part of small slabs of limestone rubble with prolific pinnings bonded in lime mortar. The stone used is mainly the local limestone and granite boulders, possibly erratics and many of them split and set on edge. There are also cubical blocks of basalt, doubtless quarried locally from tertiary dykes. The basalt is occasionally disposed in courses in the curtain and appears in chequerboard fashion in the wall of the south-east range. Some, at least, of the limestone used may have been quarried from the marine or

glacial cliff immediately below the castle to the north-west, although it is difficult to distinguish quarrying from natural erosion because of the highly folded nature of the limestone. The walls, with the probable exception of the wall of the south-east range, had evidently been plastered internally and harled externally.

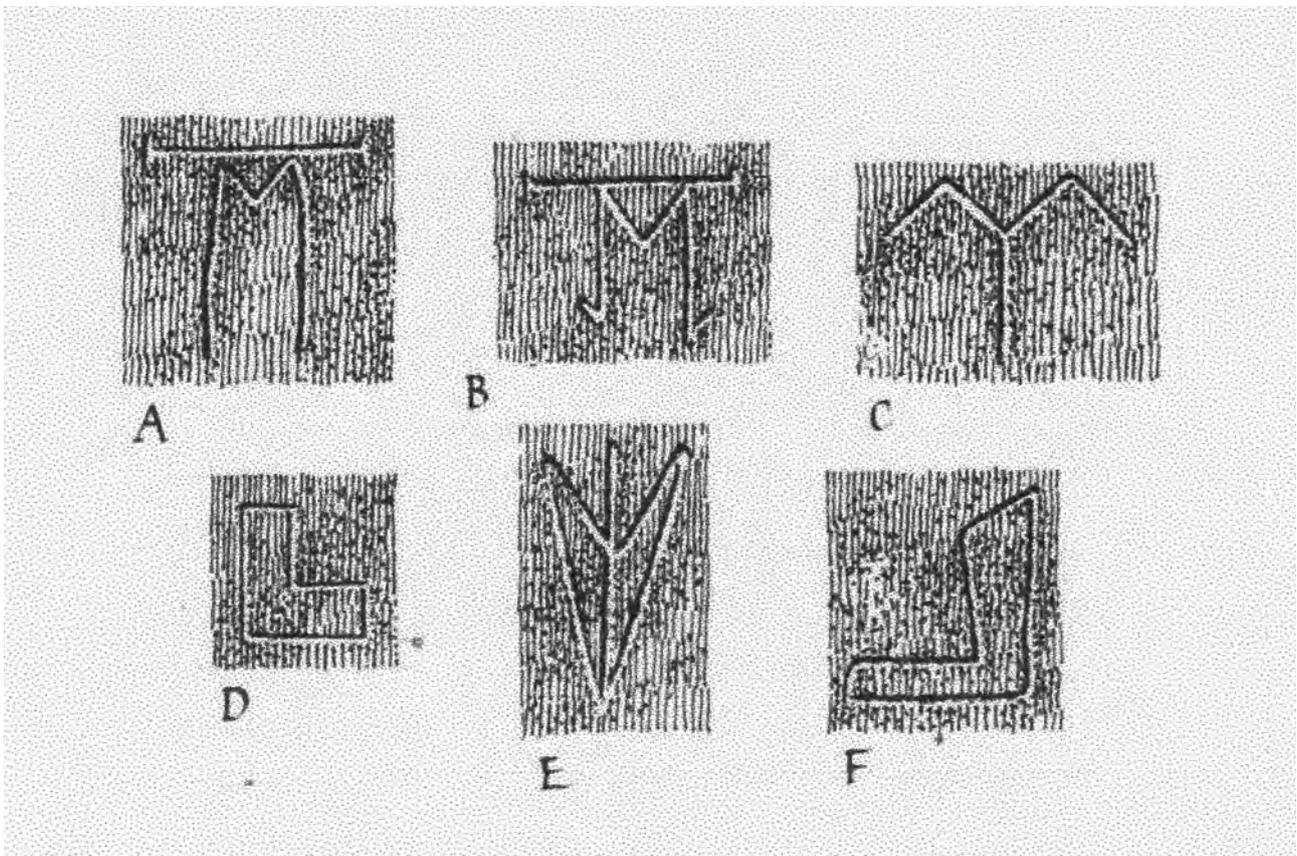
The quoins of the garderobe projection and the dressed freestone margins of the openings within the castle have been robbed, but excavation showed that those that remain are of a coarse yellow sandstone, reportedly, according to DJT, matched by Collins with Ardtornish sandstone on the north side of the Sound of Mull just east of Ardtornish Point, Morvern (cf RCAHMS 1975: 170 'probably from Carsaig [Mull]'). Masons' marks of five types, three of which are illustrated (Illus 27), were identified on the dressed masonry of the south-east range during excavation. The lowest quoins of one corner of the garderobe turret survived and two of them had identical masons' marks, a mark that was also found on the door to the south-east range and could be matched at the former cathedral on Lismore (Illus 28B).

Nothing remains of the upper part of the turret except for a few projecting bonded facing stones of the re-entrant angle towards the north-east entrance of the castle. These bonded stones included the freestone rybat of a small window or loop and are precisely above the corresponding face of the lower stages of the turret exposed during excavation. The surviving wall face below these stones shows that the facing stones of the garderobe turret were imperfectly bonded into the curtain over much of the rise of the turret. The return at ground-floor level is directly beneath that at first-floor level, and the description of the garderobe chamber having been corbelled over the re-entrant of the turret by 1m (RCAHMS 1975: 168) is an error arising from a mistake in communication between the excavator and RCAHMS staff in 1973.

The north-west curtain wall returns outwards for a distance of 0.8m at a point 10.6m south-west of the collapsed north angle (Illus 8, 26), and two garderobes within the corbelled-out upper part of the wall north-east of this discharged into the re-entrant thus formed. The stumps of the massive sandstone corbels are still visible, although most of the masonry that they supported has disappeared.



Illus 27 Masons' marks as published at 1:5 scale in 1975 in RCAHMS, *Inventory of Argyll*, 2, Fig. 161; A and B, south-east hall range; C, detached fragment (© RCAHMS. Licensor www.rcahms.gov.uk DP 196315)



Illus 28 Cathedral of St Moluag and Parish Church, Lismore: masons' marks as published in 1975 in RCAHMS, *Inventory of Argyll*, 2, Fig. 151 (© RCAHMS. Licensor www.rcahms.gov.uk SC 196314)

For the most part, the walls of the castle were found to be resting on bedrock, sometimes with a load-spreading splay or plinth at the base. In places, however, deep declivities were found to have been filled with comparatively loose rubble and the wall plinth placed directly on this, a method of construction that persisted in western Scotland at least into the 15th century (eg Turner & Dunbar 1969–70: 159). Excavations at the west corner of the enclosure showed that here the quoins, probably dressed, had been totally robbed, but that the corner had been set on two large granite boulders.

The curtain wall no longer stands south-west of the north-west entrance and forework. The south-west curtain was shown reaching to its full height in 1889 (MacGibbon & Ross 1889: 76–7), but since then it has collapsed outwards except for a small portion at the south-west end, the inner face of which survives to first-floor level. Even this, however, is so ruinous that the original thickness of the wall cannot be ascertained. The south-east curtain is even more fragmentary, only the lowest courses of the inner face of the wall being visible. Excavation in 1971 showed that this curtain wall had a thickness of 1.5m above a stepped plinth. Considerable pieces of coherent masonry from the collapsed wall lie at the foot of the steep south-eastern slope, and these include the remains of a splayed window-embasure, probably from a first-floor window lighting the south-east range.

An opening which served to drain the eastern corner of the courtyard penetrates the curtain wall at ground level south-east of the entrance (Illus 10).

Overall, then, the south-west and south-east walls of the enclosure have collapsed outwards, while the north-east wall and a substantial portion of the north-west wall survive to wall-head level, a height of about 6.7m. Owing to a natural fall in the rock surface, the south-eastern part of the site is about 1.5m lower than the north-western part of the courtyard, and this area is buried in debris to a considerable depth.

6.2 Entrances, stairs and wall-heads

The castle had an entrance at the centre of the north-east curtain wall, a garderobe turret at the east corner, and a second entrance in the north-west side. The north-east or ‘landward’ entrance is

the only one available for use today, and, as a result of stone-robbing and collapse, has the superficial appearance of having possessed a wide-arched transe or passage. As a consequence, it tends to be seen as the principal entry, and was regarded as such by the excavating team. However, further reconsideration of the evidence in the preparation of this report led DJT to favour the north-western gateway as a more likely principal entry.

The landward or north-east entrance (RCAHMS 1975: plate 37D) has an opening so damaged that the original form of the arch-head cannot be ascertained. During the excavations in 1973, two sandstone rybats which probably formed part of this doorway were found among rubble in the east angle of the courtyard. They are wrought with two chamfered orders, each of 0.13m, and appear to be of late 13th-century date. The dimensions were close to those of the 0.88m-wide north doorway of the choir of the medieval cathedral, 8km to the north (RCAHMS 1975: figs 149G and 152), where the orders are 0.13 and 0.17m wide. This suggests that the north-east entrance to the enclosure at



Illus 29 Intra-mural stair in north-east wall, 1970 and published in 1975 in RCAHMS, *Inventory of Argyll*, 2, Plate 37B (© RCAHMS. Licensor www.rcahms.gov.uk SC 1445518)

Achanduin could have had a two-centred arch of similar form to the door to the choir of the cathedral. The chamfered rybats were, according to DJT, identified by Collins as being of Carboniferous sandstone from Inninmore Bay, Morvern. The surviving lower rybats of the inner opening of the transe were found to be of plainly dressed freestone.

Within the entrance doorway, the lowest courses of the splayed north-west ingo and part of a drawbar socket survive, while on the south-east a straight stair (Illus 29) rises in the thickness of the wall to give access to the parapet-walk. The curtain wall is thickened internally to accommodate this stair and a mural passage leading from the south-east range to a garderobe chamber at the east angle.

The wall-head was reached by the mural stair from the north-east transe. The stair retains most of its stone treads and the positions of the timber lintels that originally formed its roof are also visible. A portion of the parapet wall, 0.7m in thickness, stands to a height of about 1.1m above the roughly paved wall-walk in the area above the north-east entrance. There is no evidence for the existence of drainage weep-holes.

This entrance has no external defence other than an enfiling loop in the garderobe turret to the south-east. However, the approach to the doorway was rendered difficult by the natural drop of the ground and the proximity of a steep change in ground-level immediately to the south-east. A well-worn path descends the cliff 50m NNE of the entrance and gives access to the closest located source of fresh water.

The castle also had an entrance in the north-west wall of the enclosure. Equipped with a drawbar socket in the north-east ingo and having an internal width of 1.4m, this entrance gateway is located to the south-west of the garderobes in the north-west wall. Before excavation this appeared to give access to a curious, bastion-like feature which then became understood as a small forebuilding defending the doorway. Approach from the exterior was via a stone-built platform which on excavation was found to incorporate a pit measuring about 2.2m square and almost 2m deep. It was evidently designed to be covered by a movable platform or drawbridge. This forework replaced an original timber platform whose twin putlog holes passed completely through the curtain wall (Illus 5) and are partially blocked by

the masonry of the forework. The timber platform must have been approached by a stair or ladder.

Thus the forebuilding walls had been keyed into the outer ends of the putlog holes and enclosed a bridge pit. In its initial state, the forebuilding – the walls of which did not apparently rise above threshold level – was presumably also approached by a timber stair, the two blind putlog holes for which survived. Subsequently, the bridge pit was reduced in size by partial infilling with loose stones, part of the south-west wall of the forebuilding was broken down, and rough stone steps were formed against the curtain wall rising to the level of the gateway threshold. Before the modifications were carried out to the forebuilding, some occupation material, including pottery and an Edward II penny (below, **Coins and jettons**, no. 11), had accumulated at the bottom of the bridge pit.

The gateway was further defended by a drawbar, but the entire external margin of the entrance had been robbed and the wall to the south-west had collapsed to just above threshold level. The damaged lowest north-eastern rybat of the inner opening survived and was made from the coarse sandstone used for dressings elsewhere in the castle. At an unknown date, the floor of the transe had been recobbled above the original level.

Such is the lie of the land, the forebuilding must have been approached by a path that led from the sloping ground to the south-west and passed along the south-western third of the north-west wall. Traces of a rough boulder pavement in this position were found during the excavation. As previously noted, a steeper descent from the west corner of the castle led north-west via a broad gully to rough and steep but well-worn steps down to a low point on the sea-facing cliffs and thence to the 25-feet (7.6m) beach and the head of Bernera Bay. Bearing in mind that this 'galley-castle' would normally have been served from the sea, the excavator finally concluded that this was probably the main entrance.

6.3 Interior

Inside the enclosure, the courtyard, which was roughly cobbled, was flanked on the south-east by a substantial two-storeyed masonry range which measured 7.6m in internal width, and in the north angle by another, possibly timber-framed, range

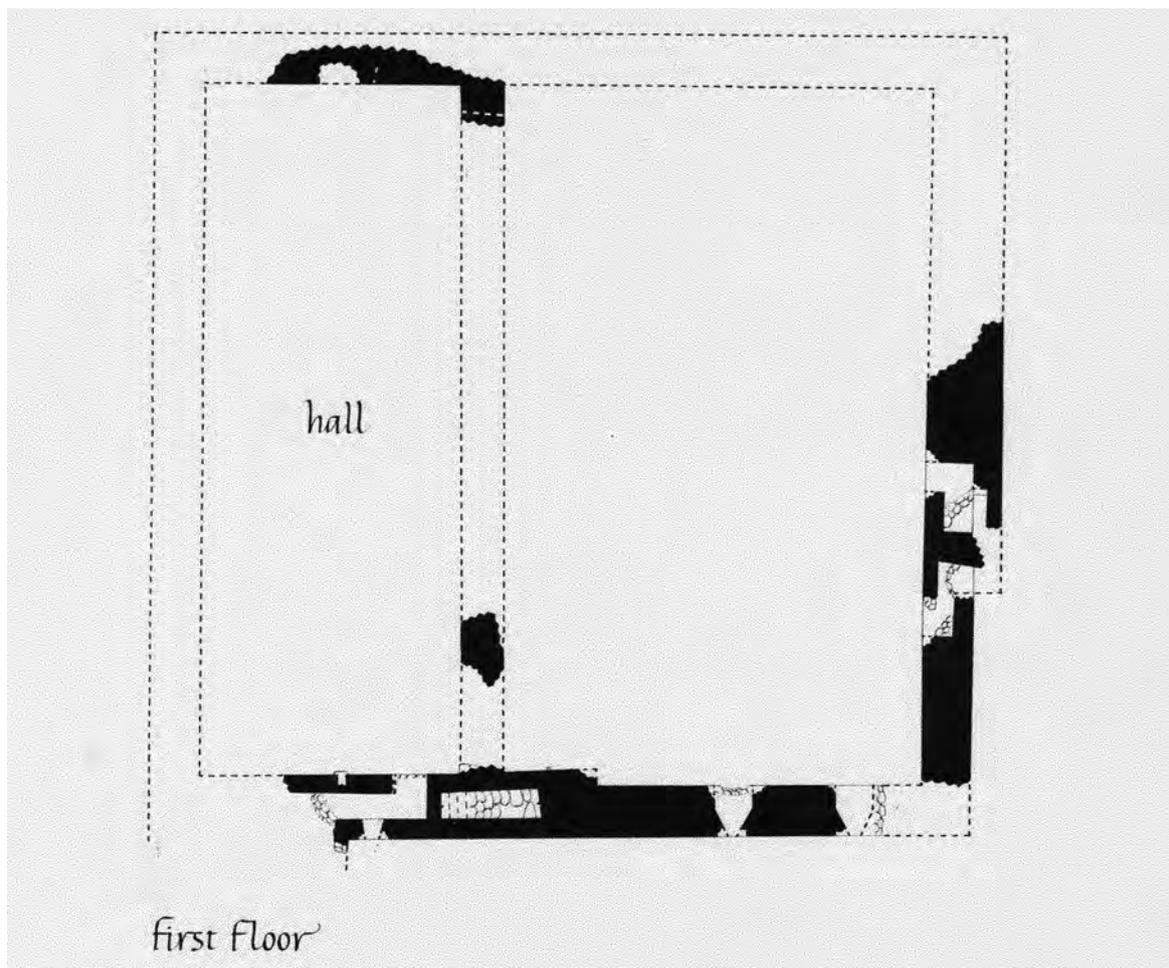
of uncertain dimensions which contained an open hearth. It is probable that its lighter construction and reduction to a single storey represented a change of plan.

6.3.1 South-eastern range (Illus 18)

The north-west wall of the south-eastern range, which measured 1.6m in thickness at ground level, was buried under rubble but excavation showed that it still stood to a greatest height of about 2m, was 1.5m thick and extended the full width of the enclosure (Illus 8). The wall had been constructed with large facing boulders arranged with panels of pinnings to achieve a rough chequerboard pattern. The wall had been pierced by two doorways, neither of which had been suspected before excavation, and at least two windows in the lower storey. One window, the most north-easterly, was intact and its inner (south-eastern) face had been visible before

excavation began; the second was represented only by its sill stone, disclosed by excavation. A possible third window was evidenced by a dressed stone, which matched corner stones from the other windows, and which was found in tumble close to the north-west wall of the range on the courtyard side, approximately 5m from the south-west side of the courtyard.

Excavation in 1970 revealed a doorway 5.2m from the north-east end of the wall (Illus 5, 13–14): the dressed masonry of its north-east jamb survived to a height of about 1.2m, being wrought with a 100mm chamfer on the external arris and a 30mm chamfer on the arris of the rebate. A second doorway, serving the south-west part of the range, was exposed in 1971. The ground floor of the range was lit by at least two windows to the courtyard, one on each side of the north-east doorway. Of the window to the south-west, only the sill survived, but that at the



Illus 30 First-floor plan as surveyed in 1971 and published in 1975 in RCAHMS, *Inventory of Argyll*, 2, Fig. 160 (© RCAHMS. Licensor www.rcahms.gov.uk DP 196316)

north-east end of the wall was almost intact. These windows were vertical slits with daylight openings of 0.32m wrought externally with continuous 80mm chamfers and rebated and splayed internally, the inner jambs of freestone having been removed before excavation. It is probable that there is a third window in the unexcavated portion of the wall.

The internal wall that separated the south-east range from the rest of the enclosure appeared to be integral with the construction of the curtain. As described elsewhere in this report, jamb stones and masons' marks correspond with those of St Moluag's Cathedral, Lismore, ascribed by RCAHMS to *c* 1300 (RCAHMS 1975: 156–63, no. 267; Illus 27–28).

The one-time existence of an upper storey to the range along the south-eastern side of the castle enceinte was demonstrated by a high-level entrance at the north-east end, giving access by a dog-leg passage to the garderobe chamber described above. The slab-lintelled roof of the chamber was higher than that of the passage and it is possible that the floor rose by a short flight of steps. The passage was lit by a small splayed window and the chamber by a window in the re-entrant angle. However, little remains of the upper part of the south-east range, the side walls having completely disappeared (Illus 30). The garderobe chamber contained only one chute.

The joists of the first floor, which likely contained the hall, were probably carried on scarcements, of which a fragment survives towards the north-eastern end of the north-west side wall. The span, at 7.6m, was such that, if the joists were not to be too unwieldy or the superimposed floor insufficiently rigid, there must have been an intermediate support. As discussed below, the joists were probably supported by Samson posts⁷ and a central scarf-jointed lodging-beam, that is, a bressumer or girder. What may have been the socket for a timber post supporting the bressumer or girder was found just south-west of the inserted eastern room. A second, but less certain, post setting was uncovered at a distance of about 16ft (4.88m) further to the south-west. The positions of these possible post settings corresponded to a division of the lower storey into five 'bays' by means of four posts.

The position of the first-floor doorway was uncertain. Access was probably obtained by a

forestair from the courtyard, and one would have expected to find the foot of such a stair directly opposite the north-west entrance. Set into the existing fragment of the south-west gable wall there is a sandstone block which may mark the position of a former window opening. At the centre of the north-east wall of this range, at a height of about 2.1m above first-floor level, there is an opening which appears to have been deliberately formed to contain a projecting beam or corbel; its exact purpose is uncertain.

The process of robbing the dressed stones from the doorways to the south-east range had apparently weakened the wall and led to its collapse. Consequently, the lower stones of the dressed jambs of the lower floor doorways were found in positions buried by collapsed masonry. The undamaged chamfered rybats of the northernmost door were inscribed with masons' marks, referred to earlier: one of these marks was also found on the dressed quoins of the garderobe turret. The dressed outer margins of the northernmost window also bore masons' marks, three of which were six-pointed crosses, a simple mark which was identical to one on the adjacent doorway and found on one stone at Inverlochy Castle (Ian Fisher pers comm; Illus 28).

Excavation within the south-east range exposed a rough cobbled floor which had been patched and badly disturbed. In several places the floor was formed by patches of bedrock. This was partly overlaid by a dense layer of occupation material beneath the tumble. The occupation layer contained a number of objects of interest, including five coins dating through to the second half of the 14th century (see below, **Coins and jettons**).

6.3.2 North range

Two surviving window embrasures at first-floor level in the north-east curtain wall north-west of the entrance doorway suggest an intention to build a two-storeyed structure here (Illus 30). These embrasures have straight ingoes for a distance of 0.8m and are then splayed, in the same fashion as the ground-floor windows in the south-east wall of Castle Coeffin (RCAHMS 1975: 184–7, no. 282). Twin garderobes in the north-west wall also confirm the intention to build a two-storeyed block in the

north corner of the courtyard. The twin garderobe chambers projecting from the north-west curtain wall are entered by two doorways whose thresholds are at a height of about 1.8m above courtyard level, while the chambers themselves are reached by dog-leg passages. The south-west corner of the north-east chamber is splayed to form one side of a small window, while an obliquely set window is similarly contrived in the north-west angle of the other, rather more spacious, chamber. A portion of the ledge supporting the seat of the garderobe remains in situ in the south-west wall of the latter chamber.

Excavation disclosed, however, that, beneath the end of a secondary building (House B – see below), there was an extensive occupation layer around an open hearth. The edge of the occupation layer was indistinct and there was no trace of masonry walls facing the courtyard. It could thus be deduced that the mural garderobes and high windows in the curtain reflected a plan that was never completed and that the north corner of the courtyard had been occupied instead by lightly built structures with inner walls of unmortared stone, timber frame or turf which rested directly on the limestone bedrock or cobbled declivities. The removal of these walls during or before the construction of the secondary building had left no archaeological trace other than the blurring of the edge of the occupation deposits. The open hearth showed that only a single-storeyed building was involved and the presence of much burnt clay in the occupation layers around the hearth suggested that this building had been used as a kitchen employing temporary clay ovens.

The occupation layers around the hearth consisted largely of black soil containing discontinuous layers or lenses of clay or sandy clay. The layers rested partly on bedrock hammered smooth and partly, to the south-west, on cobbled infill of deep declivities in the bedrock. A small part of this infill was excavated and was found to cover tenuous traces of earlier occupation, presumably associated with the actual construction of the courtyard walls. Beneath one edge of the stony infill was found a coin of John Balliol (**Coins and jettons**, no. 13). Thus the windows and the garderobes may have been designed to serve a masonry north-west range whose construction was abandoned, possibly as a result of financial, social or military constraints and/or difficulties. In these circumstances, the

garderobes may simply have finished up being entered by steps leading up from the ground floor of the range or by a timber gallery running along the courtyard wall.

6.3.3 Courtyard

The rest of the enclosure appears to have comprised an open courtyard, the floor of which was partly cobbled, partly bedrock. The entrances to the ground floor of the south-east range were on the downhill side and provision was made to divert storm water. Across the south-west door to the range was placed a drain, capped with large boulders between which water would have entered the drain. The drain exited to a channel that utilised a natural declivity along the courtyard side of the range wall. This passed in front of the north-east door to the south-east range – where it had presumably been bridged by a flagstone – on its way to a small hole through the curtain wall. Clearly, the whole arrangement was planned in its entirety from the outset; the south-east range was not inserted into a pre-existing enclosure.

Inside the north-west entrance and slightly to one side was an odd rectangular depression of unrecorded size. On its discovery, this feature was thought to have been some kind of cistern, but excavation revealed no trace of a lining of any sort and the purpose of the depression remained uncertain. Before the castle fell into disuse, the depression had become filled with loose cobble.

During the excavations, a number of objects were found on the courtyard cobble, in soil above the cobble but below the layers of tumble. Many of these objects were of bronze and several were of high quality. Insofar as they can be dated, they appear to fall around 1500 and thus raised problems relating to the interpretation of the use and occupation of the castle in the later medieval period.

7. ARTEFACTS

7.1 The ceramics

Derek Hall and George Haggarty

7.1.1 Introduction

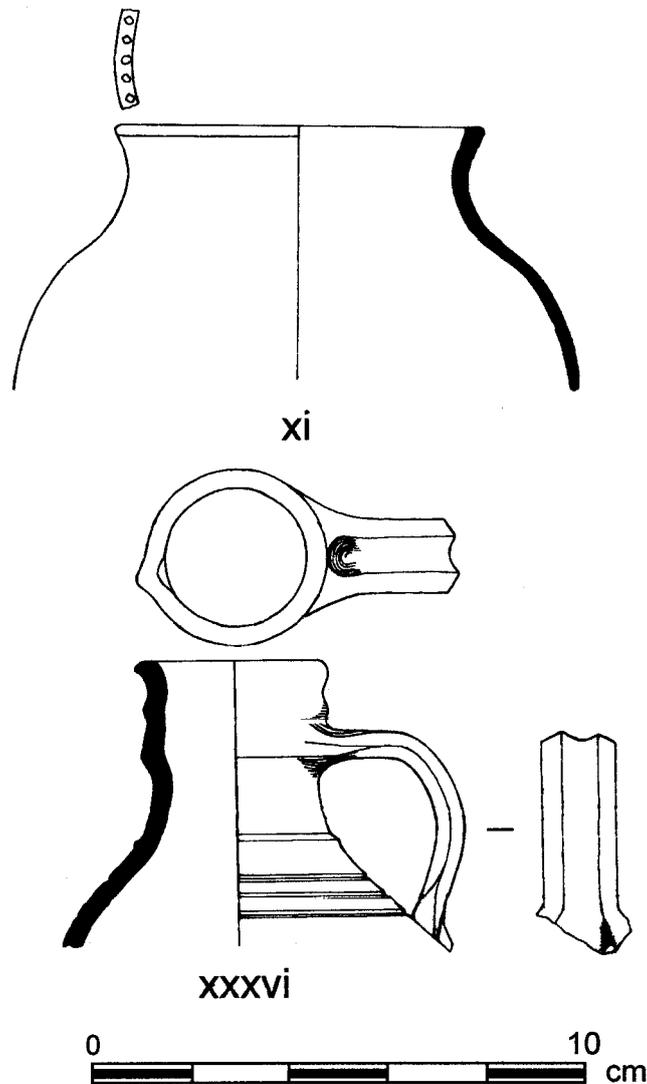
This assemblage, numbering some 142 sherds, was catalogued by the authors and assigned to recognised fabric identifications and date ranges. Identifications

were carried out by eye and x10 hand lens, and where possible published parallels are noted.

7.1.2 Hand-made wares

The hand-made ceramic tradition of the Scottish West Coast, Highlands and Islands is the subject of continuing debate and chronological uncertainty (Hall 2014). The Achanduin Castle assemblage contains 75 sherds from vessels in variations of these fabric types. Fabrics present are commonly micaceous and vary from those that have visible rock inclusions (sherd no. vii, for example) and are gritty (no. xl) through to a fabric that is heavily reduced (no. xxvi). Only one bodysherd shows any traces

of any organic elements in its fabric, in this case grass that has burnt out during the firing process (no. cdlxx). There are examples of decorated vessels (nos xl, xxvi), the decoration in both examples comprising stabbed holes on the vessel body and the top of the rim. Similar styles of decoration are now known from excavations at Baliscate on Mull (Hall 2017), Breacachadh Castle on Coll (Turner & Dunbar 1969–70), Iona Abbey (Hall & Haggarty 2013) and the islands of Gunna and Lewis (James 1998; Burgess, Church & Gilmour 1998). C14 dating at Baliscate, Mull suggests that this style is of a medieval date (possibly 14th/15th century). The contexts for nos xl and xxvi clearly suggest that they date to the 13th or 14th century.



Illus 31 Pottery. Hand-made vessel no. 1/xl; wheel-made jug no. 63/xxxvi

7.1.2 Wheel-made wares

This assemblage also includes 67 sherds from splash-glazed wheel-made vessels in a range of fabrics. Generally, these resemble fabrics that have been found on the mainland in the likes of Ayr and Dumbarton and would appear to be from jugs (Franklin & Hall 2012; Hall 2004). There is a rim and handle junction (no. 63/xxxvi) which is from a splash-glazed jug decorated with incised lines around the vessel body. It is in Scottish Post Medieval Oxidised Ware and must be of 16th-/17th-century date (Caldwell & Dean 1992; Haggarty, Hall & Chenery 2011). There is a single sherd of a Saintonge Type Bright Green glazed jug (no. cdliv) which is recorded as coming from a robber trench below the midden in Area IX-b. This is of late 13th-/early 14th-century date (Haggarty 2006).

7.1.3 Discussion and recommendations

The earliest sherd present is the single bodysherd of an imported Saintonge Green Glazed jug (no. cdliv) described above. There are also sherds of late medieval Scottish white ware vessels which should date to the 15th/16th century, but in the authors' opinion the remainder of the wheel-made wares appear to be of a much later medieval date, possibly from the 16th or 17th century. The biggest difficulty with an assemblage of this nature is identifying provenance, something that is still a considerable problem in this part of Scotland. Although there have now been upwards of 18 excavations on the Scottish West Coast and Islands that have recovered assemblages of hand-made wares in association with wheel-made wares, attempting to formulate a dating chronology is something that still needs to be tackled. As with the study of the medieval and later pottery industries on the Scottish mainland, the absence of excavated production centres is one of the biggest problems that needs to be addressed. Both the authors of this report feel that one step on the route to dealing with this would be to chemically source samples of the glazed wheel-made wares from sites on the West Coast and Islands that are found in association with hand-made wares as beginning to source the origin of the wheel-made wares will help to begin a form a chronology that can be tested

by further work. The opportunity should also be taken, where feasible, to C14 date any carbonised deposits that survive on the exterior surface of the hand-made wares.

7.2.1 Catalogue

7.2.1.1 Hand-made

► **1 (xl) 32 sherds (8 joining), forming the rim and part of the body of a large cooking pot**

Gritty fabric decorated with stabbed dots

Forebuilding: 'layer of occupation soil within bridge pit', same context as coin no. 11 (Edward II penny)

Illus 31

► **2 (xxvi) 6 sherds, of which 5 join, from a small pot decorated below neck and shoulder with two stabbed bands**

Heavily reduced

Area V: 'black occupation layer above levelled tumble in west corner of south-east range'

► **3 (cdlviii) Mould fragment**

Area V: 'black soil above irregular stone in west corner of undercroft of south-east range; midden period?'

► **4 (vii) Sherd**

Local hand-made, highly micaceous buff clay, sparse rock inclusions

► **5 (xvi) 2 sherds**

Similar fabric to no. 4/vii

► **6 (ix) 2 sherds**

Highly micaceous sherds similar to no. 5/xvi

Area I-SW

► **7 (xiii) 2 conjoining sherds**

Thick heavy body sherds from a hand-made vessel with handle scar, highly micaceous

Area II-SW: 'midden layer below tumble near wall of south-east range'

► **8 (cdlxxii) 2 sherds**

Local reduced fabric with large grits, slash decoration (?)

Area V-a: 'black soil below lower tumble in west corner of undercroft of south-east range'

► **9 (xxvii) 4 sherds from same vessel**

Slightly micaceous

Area V

► **10 (xxxiv) Sherd**

Highly micaceous fabric – transitional?

Area II-a

► **11 (cdliii) 3 sherds**

Micaceous fabric, buff reduced core, slightly gritty

Area IX-b

► **12 (cdlx) Sherd**

Micaceous fabric

Area IX-b

► **13 (xliii) Sherd**

Reduced gritty fabric

Area IX-b

► **14 (iv) Sherd**

Slightly oxidised surface, reduced interior

Area I

► **15 (iv) 3 sherds, probably from two different vessels**

Highly micaceous fabric

Area I

► **16 (vii) Sherd**

Highly micaceous fabric

Area II

► **17 (cdlxx) Sherd**

Off-white fabric with buff oxidised exterior, traces of grass impressions (burnt out)

Area III-N

► **18 (vii) 2 sherds**

Highly micaceous

Area II

► **19 (v) 2 conjoined sherds from basal angle**

Highly micaceous fabric, orange on inside, reduced on exterior

Area I

► **20 (cdlv) Sherd**

Highly micaceous

► **21 (xliv) 6 sherds**

East entrance

► **22 (vi) 2 sherds**

Highly micaceous, reduced fabric

Area IX: 'from above bedrock'

► **23 (iii) 2 conjoining sherds from neck and shoulder of a vessel**

Smooth sandy fabric oxidised exterior, reduced interior

Area IX

► **24 (cdliii) Sherd**

Highly micaceous, buff exterior, reduced interior

Area IX-b

► **25 Basal angle sherd**

Grass tempered ware

7.1.1.2 Wheel-made, medieval and post-medieval

► **26 (cdliv) Sherd, probably from a jug**

Smooth white fabric, traces of exterior green glaze. Saintonge bright green glaze

Area IX-b: 'from robber trench below midden'

► **27 (xx) 2 conjoining sherds from the rim and strap handle of a large jug**

White ware, degraded green glaze on exterior and traces of white substance inside

Area IV-NW: 'occupation layer within undercroft of south-east range'

► **28 (xii) 2 sherds**

Late medieval white ware, heavily green glazed, reduced core

Area II

► **29 (xvii) Sherd**

Similar fabric to no. 28/xii

Area II-SE

► **30 (xxi) 6 conjoining sherds from the basal angle and lower area of a thick late medieval jug**

White ware with oxidised surfaces and reduced core

Area IV-NW: 'occupation layer at floor level within undercroft of south-east range'

► **31 (xxiv) 2 sherds**

A late medieval white ware, basal angle sherd, reduced core, part of same vessel as no. 30/xxi; and a sherd in a hard red buff fabric with reduced core, highly micaceous

Area IV: 'occupation layer below clay within undercroft of south-east range'

► **32 (xxii) 3 sherds**

Similar fabric to no. 30/xxi – white ware with a reduced core

Area IV-SE: 'occupation layer at floor level within undercroft of south-east range'

► **33 (xxiii) 1 small rim sherd and 1 body sherd from jugs**

The body sherd is in a similar fabric to no. 30/xxi and no. 32/xxii

Area IV: 'occupation layer below clay within undercroft of south-east range'

► **34 (xxix) Sherd**

Hard late medieval white ware with heavily reduced core, similar to no. 30/xxi and no. 32/xxii

Area IV-SE: 'floor level within undercroft of south-east range'

► **35 (xxxii) Sherd**

Thick, highly fired, white ware sherd, lead glazed on exterior

Area VIII-SW: 'cobble level south-west of secondary walling at east corner of undercroft of south-east range, close to possible post-hole'

► **36 (xii) 2 conjoining rim sherds from a jug with a pulled spout**

Late medieval white ware with reduced core

Area II

► **37 (xxxiii) Sherd, possibly from a jug**

Late medieval white ware with heavily reduced core and lead glazed exterior

Area IV-a: 'occupation layer (but apparently below uppermost remains of cobbling) within undercroft of south-east range'

► **38 (cdlxi) 3 joining sherds**

Late medieval white ware, slightly reduced interior, heavily green glazed

Area VI: 'below tumble'

► **39 2 sherds**

(viii) Small, late medieval glazed sherd from the neck of a jug (?), with cordon

(x) Sherd of late medieval buff fabric, from small jug with handle scar, splashed green glaze

Area IV: 'robbing of inner (south-west) jamb of doorway to undercroft of south-east range'

► **40 (xix) Sherd**

Similar fabric to no. 39/x

Area I

► **41 (xiv) Sherd**

Similar fabric to no. 39/x, splashed lead glaze

Area II

► **42 (cdlxxv) Sherd**

Late medieval white ware, reduced core, thick green glaze

Area IV-74b: 'occupation layer within undercroft of south-east range'

► **43 (ii) Sherd**

Late medieval white ware, reduced core, green glaze

Area I: 'topsoil on north side of enclosure'

► **44 (xxxvii) 2 sherds**

A post-medieval white ware sherd and another in a sandy fabric

Area I-SW: 'top of stony fill below cobble'

► **45 (ii) Sherd**

Post-medieval white fabric, reduced core, thick green glaze, impressed thumb marks

Area I: 'topsoil on north side of enclosure'

► **46 (xxviii) Body sherd and strap handle**

Smooth, sandy, micaceous fabric; splashed green glaze on exterior

Area I-NE: 'occupation layer just above cobble in north quadrant of castle enclosure'

► **47 (xxxix) Sherd, possibly from a vessel formed in a mould**

Buff sandy ware

Area III-NW

► **48 (xlix) Fragment of a spindle whorl made from reused sherd of wheel made pottery**

Buff sandy fabric

Area IX-b: 'upper tumble'

► **49 (cdlxxiv) Sherd**

Buff fabric, micaceous, reduced interior

Area V-a

► **50 (cdli) Sherd. From jug**

Late medieval slightly gritty pinkish fabric under thick lead glaze

► **51 (cdlxxiii) Sherd**

Smooth red ware, white inclusions, degraded glaze on exterior

► **52 (cdlvii) Sherd**

Glazed red ware. English?

Area IX-b

► **53 (xiv) Sherd**

Glazed red ware. English?

Area IX-b

► **54 (xxx) 2 conjoining base sherds**

Red fabric, heavily reduced

► **55 (xxxi) Sherd**

Red ware, heavily reduced, green glaze on exterior

► **56 (cdlv) Sherd**

Late medieval red ware (?)

► **57 (xi) Sherd**

Reduced grey ware slightly gritty fabric, heavily green glazed, from jug shoulder with cordon

Area II-d

► **58 (xxxviii) Sherd**

A small flake, heavily green glazed, in a slightly micaceous reduced fabric

Area I-NE

► **59 (xliii) 2 sherds**

A late medieval sherd with traces of lead glaze on interior – reshaped? Another small sherd of reduced ware in a highly micaceous gritty fabric

► **60 (ix) Sherd**

A green glazed sherd in a reduced fabric (from a small jug?)

Area I-SW

► **61 (xxxv) 5 conjoining sherds from the base of a late, crudely made vessel**

Green glaze on interior, traces of external burning

Area VII

► **62 (cdlvii) Sherd**

Reduced core, nice paste

Area IX-b

► **63 (xxxvi) 5 sherds all joining to form the upper profile and strap handle of a Scottish post-medieval oxidised ware vessel decorated with shoulder cordon above three incised horizontal bands**

Area III: 'below wall of secondary building'

Illus 31

► **64 Sherd**

1 bodysherd from Scottish post-medieval oxidised ware vessel

Area IX-a/e

7.1.1.3 Factory-produced wares of the 19th century

► **65 3 sherds**

Blue and white transfer printed paste, standard willow pattern. Bells of Glasgow

► **66 2 sherds, vessel lip**

Pearlware, trailed decoration in blue and yellow

7.2 Coins and jettons

Nicholas Holmes

This assemblage of 17 coins and one jetton is consistent with activity on the site from the early to the late 14th century. There are no coins earlier than the single cross type of Edward I, first minted in 1279, and only two pre-date 1305. All the English pennies, as well as the halfpenny of John Balliol, are of types which would have circulated all over Scotland until well into the second half of the 14th century. The coins of David II and Robert II date from the period 1358–90, a period during which the evidence of hoards suggests that English Edwardian pennies gradually fell out of circulation, to be replaced by pennies and larger

denominations issued by Scottish kings. Hoards concluding with coins of David II normally also contain substantial numbers of Edwardian pennies, whereas those concluding with issues of Robert II rarely contain coins earlier than David II. Since this assemblage includes no examples of the relatively common early groats of Robert III, it is reasonable to suggest that coin use on the site came to an end not long after 1390. The French jetton is of a type which fits happily into a late 14th-century context, although it could also have been struck a little later.

7.2.1 Catalogue

7.2.1.1 England

► 1 Coin Ag

Edward I penny, 2b, Durham; 1.27g; black accretion on surfaces

► 2 (clxxxviii) Coin Ag

Edward I penny, 8b, London; no apostrophe after h; reversed N in DON; 1.18g
1971

► 3 Coin Ag

Edward I–II penny, 10ab5, Canterbury; 1.29g

► 4 (cdxi) Coin Ag

Edward I–II penny, 10ab5, Canterbury; unbarred N in ANG; 0.99g
1972

► 5 (cdx) Coin Ag

Edward I–II penny, 10cf1, Durham, cross moline; 1.00g
1972

► 6 (cdxv) Coin Ag

Edward I–II penny, 10cf2a, Durham, cross moline; 1.53g
1972

► 7 (cxcviii [sic]) Coin Ag

Edward I–II penny, 10cf2a, Durham, cross moline; 1.18g
1972

► 8 Coin Ag

Edward I–II penny, 10cf2a, Durham, cross moline; 1.00g

► 9 (clxxxvii) Coin Ag

Edward I–II penny, 10cf2a, London; 0.90g
1971

► 10 (clxxxvi) Coin Ag

Edward I–II penny, 10cf3a1, London; 1.32g
1971

► 11 (cdix) Coin Ag

Edward II penny, 11a2, London; slightly chipped; 0.68g

Forebuilding (1972): ‘occupation soil dumped in bridge pit’

12 (cdvii) Coin Ag

Edward II penny, 11b2, Canterbury; 1.03g
1972

7.2.1.2 Scotland

► 13 (cdvi) Coin Ag

John Balliol halfpenny, 2nd (‘smooth’) coinage, Berwick; 0.52g

Area III: ‘below rubble filling crevice of bedrock and forming pavement of courtyard’

► 14 (clxxxviii) Coin Ag

David II groat, 2nd coinage A, Edinburgh; 4.02g
Area II (1970–3): ‘door fill’

► 15 (clxxxix) Coin Ag

Robert II groat, Perth; 3.59g

Area I (1970–3): ‘below tumble’; found pressed together with coin no. 16

► 16 (clxxx) Coin Ag

Robert II groat, Perth; 3.32g

Area I (1970–3): ‘below tumble’; found pressed together with coin no. 15

► 17 (cdviii) Coin Ag

Robert II half-groat, Edinburgh; 1.32g

7.2.1.3 French jetton: latten

► 18 Jetton Cu alloy

Crown type with annulets as decoration (14th to early 15th century); cf Mitchiner 1988: 477a

Note: DJT drew attention in his notes to a report that ‘About 80 years ago’ [c 1860?] numerous coins were found in an ‘underground passage’ at Achanduin

Castle (Carmichael 1948: 123). The ‘passage’ was filled in on the insistence of the proprietor and the coins cannot be traced or identified.

7.3 The metalwork

7.3.1 Non-ferrous metal objects

The most remarkable finds from these excavations are the six brooches catalogued here. It is unfortunate that not more is known about the contexts in which they were discovered. The earliest and most accomplished is no. 6, of 13th- or 14th-century date, possibly manufactured in a large town somewhere in northern Europe. It is clearly a high-status piece. The other five brooches are of local manufacture. No. 1/lxxxiii is described as coming from ‘high in a 14th-century occupation’ but it is not clear what DJT meant by this, and along with nos 2–5, a date for its original manufacture in the late 15th or 16th century would seem likely. In general terms, there are several ring brooches with flat hoops, either in copper alloy or silver, in the collections of National Museums Scotland, which like nos 1–5 can be considered to be of Scottish, and in the case of many of them, more specifically of West Highland manufacture. Their use has recently been reviewed by Caldwell (2014: 245–6).

No. 5 is of particular interest because it is clearly unfinished, and there is some slight evidence given below of metalworking activities in the castle. The black letter inscriptions on nos 3 and 4 were meant to give those brooches amuletic qualities. Other late medieval West Highland brooches are similarly inscribed, like a silver one from Mull, and an unprovenanced copper brooch, both in National Museums Scotland (NMAS 1979: nos 19, 22). The inscriptions on the latter are merely imitations of lettering. The use of black letter in the West Highlands may not date much before 1500 (Steer & Bannerman 1977: 5).

The information on contexts is not complete or detailed enough to provide dates for those other finds like the buckles (nos 7, 8) and fragments of cooking pots (nos 13, 14) which cannot themselves be closely dated. All the copper alloy finds, apart from brooch no. 6, could well belong to the late 15th century or later. Stick pins, generally like no. 11, are a common find in Scotland (Caldwell 2014: 245). There is, however, a pin very similar

to this one illustrated in a catalogue of finds from Amsterdam where it is identified as a locking pin of the 16th or 17th century (Baart et al 1977: 375, no. 716). The toilet set (no. 12) is notable for its completeness, and must have belonged to someone of some refinement, in the 16th or 17th century.

7.3.1.1 Catalogue

► 1 (lxxxiii) Brooch Cu alloy

Ring brooch with flat hoop with scalloped outer edge, part missing, with pierced, possibly secondary, rivet hole; engraved on obverse with hatching and geometric designs, and on reverse with hatched triangles. Diam: 44mm.



Illus 32 Brooch no. 1/lxxxiii, front (top) and back (bottom) (Stuart Campbell)



Illus 33 Brooch no. 2/lvii (Stuart Campbell)

Area I (1970): 'north-west building, high in 14th-century occupation deposit'

Illus 32

► **2 (lvii) Brooch Cu alloy**

Ring brooch with flat hoop, 7mm wide, joined by a rivet, probably a secondary repair, but effected prior to the surface of the brooch being decorated. Its pin, probably a replacement, is of iron with a simple loop head. The decoration consists of an incised, four-pointed star pattern and hatching. Diam: 41–42mm.

Area II-SW (1970–3): 'the courtyard below tumble of the wall of the south-east range'

Illus 33

► **3 (lvi) Brooch Cu alloy**

Ring brooch with cast flat hoop, 9mm wide, cast as one, with barrel-headed pin. It is engraved with clumsily executed black-letter inscriptions, four groups in kidney-shaped panels, each reading 'ihc', a Latin abbreviation for Jesus. There are floral motifs between the panels. The surface of the hoop is worn where the end of the pin has rubbed against it. Diam: 49mm.

Area I (1970): 'resting on bedrock directly below turf in the courtyard'

Illus 34

► **4 (lxxxii) Brooch Cu alloy**

Ring brooch with flat hoop, 7–9mm wide, cast as



Illus 34 Brooch no. 3/lvi (Stuart Campbell)

one, with replacement pin. It is engraved with five groups of poorly executed black letters, apparently reading, from the right of the pin head: 'inrid', 'inrid', 'inrid', 'inrid', 'domn'. The 'inri' abbreviation occurs widely in medieval contexts and stands for 'Jesus Nazarenus Rex Iudeorum', Latin for Jesus of Nazareth, King of the Jews. The letter 'd' and the following 'domn' are Latin abbreviations for 'Dominus', Lord. There are geometrical motifs between the groups of letters, now difficult to distinguish. Diam: 45–47mm.

Area IX (1974): 'resting on bedrock directly below turf in the courtyard'

Illus 35

► **5 (lxi) Brooch Cu alloy**

Ring brooch, unfinished, the flat hoop roughly hammered into shape, cut to hang a pin, but not riveted together. Diam: 54mm.

Area VI (1971): unstratified

Illus 36

► **6 (lx) Brooch Cu Alloy/niello**

Ring brooch, the hoop cast in one, oval in cross-section with an outer collar. It is decorated on the obverse with inlaid niello saltires reserved against cross hatching; on the reverse are niello chevrons; the collar is stamped with annulets on the obverse and has engrailed beading on the reverse; the pin is surmounted by a fluted knob and has a barrel-



Illus 35 Brooch no. 4/lxxxi (Stuart Campbell)



Illus 36 Brooch no. 5/lxi (Stuart Campbell)

Illus 37 Brooch no. 6/lx, front (top) and back (bottom) (Stuart Campbell)

shaped head incised on top with a saltire. There are no obvious signs of wear. Diameter: 59mm.

Area VI (1971): ‘apparently from below repair to courtyard cobbling beneath post-medieval building’
Illus 37

► **7 (lxxvii) Buckle Cu alloy**

Double oval buckle with cord moulding and pin. 31 x 35mm.
(1974)

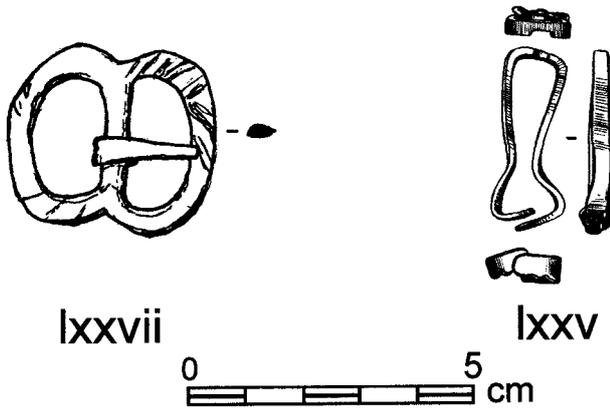
Illus 38

► **8 (lxix) Buckle Cu alloy**

Double oval buckle with cord moulding; pin broken. 31 x 35mm.

Area II A (1972): below tumble above the capstone of the courtyard drain, 0.66m from wall of south-east range

Not illustrated: very similar to no. 7 – possibly from the same mould



Illus 38 Copper alloy artefacts. Buckle no. 7/lxxvii; belt loop no. 10/lxxv

► **9 (lxviii) Buckle plate Cu alloy**

Buckle plate/strap reinforcement. 6 x 49mm.

► **10 (lxxv) Belt loop Cu alloy**

Keyhole-shaped mount. 34 x 13mm.

Area IV (1974)

Illus 38

► **11 (lxxxiii) Stick pin Cu alloy**

Stick pin with twisted shaft and loop head. L: 73mm.

Area IV (1971): 'fill of collapsed wall'

► **12 (lxxi) Toilet set Cu alloy**

Toilet set of four members on a common spindle, including a hook (for nail cleaning?), a tooth-pick, a two-pronged fork and a scoop (for ear cleaning?). L: 55mm.

Area II (1970–3): 'below tumble and shell midden in courtyard, 0.36m from wall of south-east range'

Illus 39

► **13 (liii) Fragment of cooking pot Cu alloy**

Sherd with two adjacent horizontal ribs, probably from a cooking pot. 23 x 25mm.

Area IV (1971): 'occupation layer'

► **14 (lxxxv) Fragment of cooking pot Cu alloy**

Sherd, probably from a cooking pot. 49 x 19mm.

Area VI (1974)



Illus 39 Toilet set no. 12/lxxi (©Trustees of the National Museums of Scotland)

► **15 (lxxxii) Handle Cu alloy**

Drop handle, possibly from a casket lid. 30 x 43mm.

► **16 (lxxxvi) Metal patch Cu alloy**

Rectangular piece of sheet metal, pierced with 10 rivet holes, two with rivet heads still in place. 101 x 39mm.

Area IX-b (1974)

► **17 (lxxxviii) Metal patch Cu alloy**

Fragment of sheet metal with carbonised deposits on both surfaces. 43 x 30mm.

Area IV (1975): 'black occupation layer'

► **18 (lxxxvii) Metal strap Cu alloy**

Broken length of sheet metal with three rivet holes. 90 x 13mm.

Area V (1975): unstratified

► **19 Metal patch Cu alloy**

Disc of sheet metal with perforation. Diam: 23mm.
Area IV (1975): 'black occupation layer'

► **20 (Ixvi) Wire Cu alloy**

Length of wire, *c* 0.5mm in diameter, wound and twisted into a ring. Diam: 25mm.
(1970)

7.3.2 Iron objects

Dress ornaments and fittings are represented by two buckles, and there are seven knives which probably served as personal equipment for everyday use. It is unfortunate that it has not been possible to identify the context for the fine knife handle (no. 3). It is likely to be 16th century in date.

The four arrowheads all appear to be designed for warfare rather than hunting, and where appropriate, have been assigned to the classification devised in the *London Museum Medieval Catalogue* (LMMC 1967: 65–70) or the one by Jessop (1996). Nos 8 and 9, both similar, are not matched closely in either of these classifications, but a similar one has been recovered from Urquhart Castle, Inverness-shire (Samson 1982: 466, no. 13). No. 10 can be compared to a projectile head from Cruggleton Castle, Wigtownshire (Ewart 1985: fig. 32, no. 20).

Although the context for the Jew's harp does not appear to be a secure medieval one, it can, nevertheless, be dated to that period. Jew's harps occur quite widely in Northern Europe in the Middle Ages, certainly in the 14th century, if not considerably earlier. For a useful survey of the surviving examples, see Ypey (1976). In form, the Achanduin Jew's harp is not unlike a bronze one from 'De Bol' at Vianen, from a 'secure' context dated *c* 1350–1500 (ibid, figs 14, 15). Jew's harps were known in Scotland as 'trumps' and are mentioned in documentary sources from the late 16th century (*Dictionary of the Scots Language*, www.dsl.ac.uk sv 'Trump', accessed 3 July 2014).

The three hasps (nos 13–15) might be from shutters or doors, or else to secure chests with padlocks requiring keys like no. 17. The small key (no. 16) may have been for a casket. All would fit comfortably in medieval contexts across northern Europe.

Some 300 nails, 35 clench bolts and 6 staples were recovered from the excavations. Unfortunately, only a token handful of these received any conservation treatment and none were X-rayed. Most are broken or incomplete, but as far as can now be ascertained, there is not a significant proportion of nails with bent shafts and clench bolts with heads or roves prised off, such as would have resulted from dismantling built timberwork and recycling the wood. Many were recovered from the tumble in Areas II and IV, and from the 'black soil' occupation levels in Areas I, III and IV.

All are of wrought iron, the nails and staples with rectangular sectioned shafts. The majority of the nails have flat, round or sub-rectangular heads (no. 25), but seven, like no. 26, were noted as having domed heads, probably to give a decorative finish on doors and the like. Fourteen have long thin rectangular or figure-of-eight heads (no. 27), suitable for recessing in wood, for example floor boards. One nail has a wedge-shaped head and triangular sectioned shaft (no. 28). The clench bolts mostly have heads about 24mm square or less, and roves from about 20mm to 40mm square. They were used to clamp boards together, for example in doors and shutters, many of which must have been from about 15mm to 25mm in thickness.

Not catalogued here are a group of finds from superficial deposits or tumble which appear to date to post-medieval and modern times, including a sledgehammer head (ccclxxxi) and a plough coulter (ccxxvi). The latter has not been found, and is now only known from illustrations of it being excavated. It was apparently of iron, about 0.6m long.

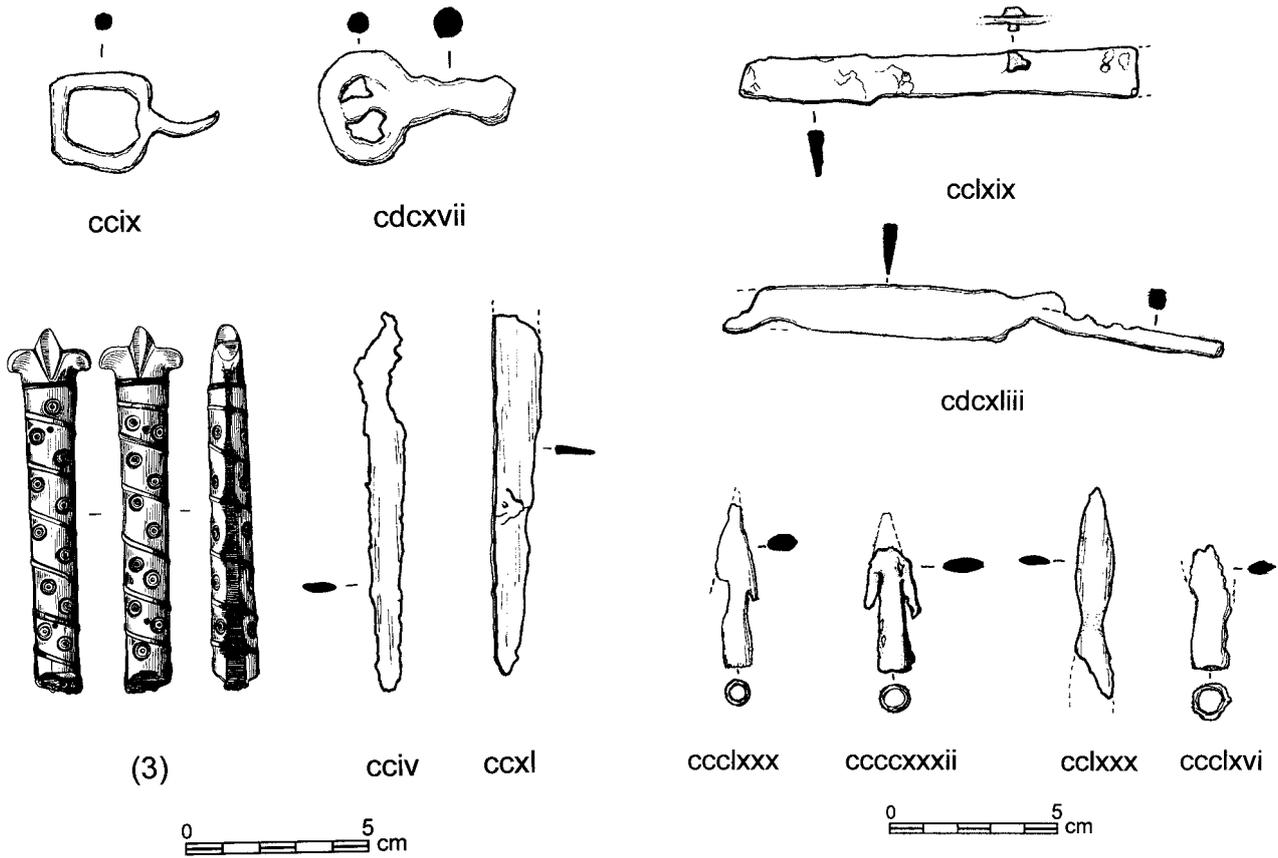
More problematic is a small padlock, undoubtedly no earlier than the 20th century, which is labelled as find cccxl from 'occupation sealed beneath courtyard cobbling' in Area I in 1972. This find was originally reported, prior to conservation treatment by the National Museum of Antiquities of Scotland, as a wedge. It has been concluded that the padlock has been wrongly identified as the wedge.

7.3.2.1 Catalogue

► **1 (ccix) Buckle**

Rectangular buckle of round section metal, with pin. 26 x 28mm.

This piece has now disintegrated and its illustration is based on a drawing made by D Caldwell in the



Illus 40 Iron artefacts

1970s or 1980s.

Area I-SW(5): 'black soil below tumble and above cobble'

Illus 40

► **2 (cdcxvii [sic]) Buckle**

It has a large circular head of round section metal; the pin is corroded in place. 51 x 31mm.

Area VI-74 (1974): 'ash layer'

Illus 40

► **3 (not known) Knife Fe, Cu alloy and horn**

Handle of a scale tang knife with bronze trefoil pommel, horn plates spirally bound with copper alloy wire and decorated with ring and dot motifs. L: 100mm.

Illus 40

► **4 (cciv) Knife**

Blade only. 100mm.

Area II-E: 'fill of NE doorway to hall range'

Illus 40

Illus 41 Iron artefacts

► **5 (ccxl) Knife**

Blade only. L: 99mm.

Area IV-SE (1971): 'cockle midden layer'

Illus 40

► **6 (cclxix) Knife**

Scale tang knife, blade incomplete. The grips on the handle have been secured by three iron rivets, one of which is rusted in position. L: 118mm.

Area IV: unstratified

Illus 41

► **7 (cdcxliii [sic]) Knife**

Whittle tang knife, blade incomplete. L: 153mm

Area V-75b (1975): 'occupation layer'

Illus 41

► **8 (ccclxxx) Arrowhead**

Socketed arrowhead with narrow head and one surviving, small barb. L: 49mm.

Area IX-b (1974): 'below tumble'

Illus 41

► **9 (ccccxxii [sic]) Arrowhead**

Socketed arrowhead with narrow head and small barbs; point missing. L: 32mm.

Area VI: 'sticky above boulders'

Illus 41

► **10 (cclxxx) Arrowhead**

Socketed arrowhead with leaf-shaped blade (Jessop 1996: type M10). L: 58mm.

Area II-A (1972): 'below mortar/tumble'

Illus 41

► **11 (ccclxvi) Arrowhead**

Socketed arrowhead with small leaf-shaped head (LMMC type 10). L: 36mm.

Garderobe tower (1973): 'midden below flat stones'

Illus 41

► **12 (ccxliii) Jew's Harp**

The rounded head is small, the diamond-sectioned shanks comparatively long. Most of the tongue is missing. 85 x 28mm.

Area IV-SE (1971): 'from low in tumble – possibly disturbed from 14th-century occupation layer'

Illus 42

► **13 (ccxxxv) Hasp**

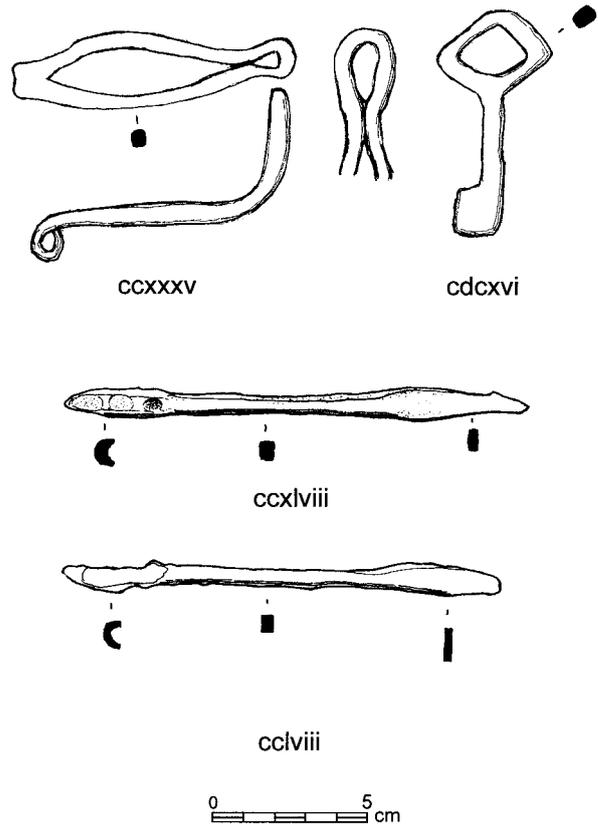
Angled figure-of-eight hasp with hooked end. 82 x 54 x 25mm.

Area I (1970): 'below tumble, close to coins clxxxix & clxxx' (nos 15 and 16 – Robert II groats)

Illus 43



Illus 42 Jew's harp



Illus 43 Iron artefacts

► **14 (ccxxxix) Hasp**

Similar to no. 13.

Area VI (1972): 'sticky above boulders'

► **15 (cdcxl [sic]) Hasp**

Hasp, broken, but similar to nos 13 and 14. L: 92mm.

Area III-N (1975): 'near W end of trench in stones at base of black above occupation'

► **16 (cdcxvi [sic]) Key**

Small key with lozenge-shaped bow and small rectangular ward, corroded solid. L: 74mm. This piece has now disintegrated and its illustration is based on a drawing made by D Caldwell in the 1970s or 1980s.

Area VI (1974): 'brown below ash – pit?'

Illus 43

► **17 (ccxxxvii) Padlock slide key**

The bit, for a two- or three-spined spring, is set laterally to the shank and has a looped terminal (Goudall type A padlock key, see Franklin &



Illus 44 Padlock slide key

Goudall 2012: 156). L: *c* 190mm.

This piece has not been located. Information on it is derived from a record photograph made by the National Museum of Antiquities of Scotland in the 1970s, reproduced here as Illus 44.

IV-NW (1971): 'below shell midden; 14th-century occupation'

► **18 (ccxlvi) Auger bit**

With spoon blade and lozenge-shaped terminal for mounting. 141 x 9mm.

Area IV: 'black layer below clay'

Illus 43

► **19 (cclviii) Auger bit**

Similar to no. 19/cclviii. 150 x 10mm.

Area IV: 'black layer below clay'

Illus 43

► **20 (cclix) Sickle**

Part of blade only, including the tip. L: 142mm.

Area V: 'black occupation above cobble'

Illus 45

► **21 (cclx) Horseshoe**

One branch only with calkin and remains of two rectangular nail holes. 91mm.

Area V (1971): 'black layer above cobble'

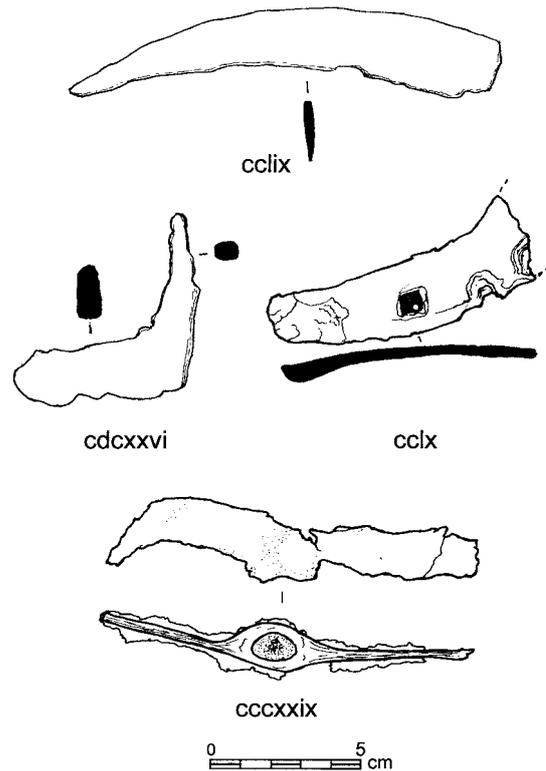
Illus 45

► **22 (cccxxix) Grill(?)**

Length of metal with socket, possibly part of a grill, eg for a window. L: 119mm.

Area VIII-E (1972): 'occupation layer'

Illus 45



Illus 45 Iron artefacts

► **23 (cdcxxvi [sic]) Hinge pivot**

With slender guide arm and sturdy shank. 58 x 61mm.

Area III-NE (1975): 'black below tumble, from northern building in courtyard'

Illus 45

► **24 (cclxxix) Hinge pivot**

Similar to no. 23/cdcxxvi

Area IX-b (1974): 'base of shell midden'

► **25 (ccliii) Nail**

With large flat head and rectangular sectioned shaft. L: 65mm.

Area IV-SE (1971): 'lower tumble'

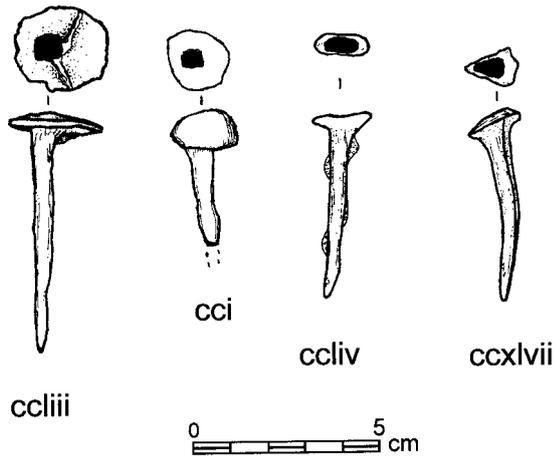
Illus 46

► **26 (cci) Nail**

With domed head and rectangular sectioned shaft. L: 32mm.

Area II-E (1970): unstratified

Illus 46



Illus 46 Nails

► 27 (ccliv) Nail

With narrow figure-of-eight head and rectangular sectioned shaft. L: 52mm.

Area IV (1971): 'above main tumble'

Illus 46

► 28 (ccxlvii) Nail

With wedge-shaped head and triangular sectioned shaft. L: 52mm.

Area IV (1971): 'tumble?'

Illus 46

7.3.3 Metalworking debris

Six pieces are catalogued here as evidence for non-ferrous and iron metalworking. Other unlisted fragments with splashes of lead are a less certain indication of metalworking. It is unfortunate that it has not been possible to provide contexts for any of these items.

► 1 (cxiv) Iron furnace bottom

Fragment only. 12 x 70 x 40mm. Weight: 380g.

Area IX-b (1974)

► 2 (cxiii) Iron slag

A small fragment, possibly from the edge of a smithing hearth base. Weight: 18.1g.

Area VIII (1973)

► 3 (cii) Intensely vitrified ceramic or stone

Fragment. Weight: 67.7g.

Area I

► 4 (c) Crucible fragment?

Curved, vitrified fragment with greenish glassy surface and a patch of red vitrified residue (typical of non-ferrous metalworking), possibly a failed and distorted crucible fragment. XRF analysis by Gemma Cruickshanks of National Museums Scotland identified trace amounts of copper and zinc. Weight: 5.5g.

Area I

► 5 (ci) Stone with evidence of non-ferrous metalworking

Curved stone fragment, with one side glassy with red patches. Weight: 35.7g.

► 6 (civ) Slag from non-ferrous metalworking

Three fragments of frothy, porous slag. The reddish colour suggests non-ferrous metalworking rather than ironworking, though there is some iron-staining present too. Weight: 218.6g.

Area I-NE: '14th–15th century'

7.4 Bone objects

The three tuning pegs listed here and one of the tablemen come from the trenches within the hall range, conjuring up an image of medieval entertainment. It is not clear whether the pegs come from one or more instruments, but presumably one(s) strung with gut, rather than the clarsachs (harps) played in these parts. The latter had wire strings and metal pegs.

► 1 (clxxxii) Bead (?)

Cylindrical. L: 14mm; Diam: 22–24mm, with piercing of 6mm in diameter.

[identified by DJT as a spindle whorl]

► 2 (clxxxv) Tuning peg

Tuning peg for a musical instrument with shouldered head and round sectioned stem. The string hole has a diameter of 1mm and is askew to the plain of the peg head. L: 73mm.

Area IV (1971): 'black occupation layer below tumble'

► 3 (cdxviii) Tuning peg

Tuning peg for a musical instrument with shouldered head and round sectioned stem. The string hole

tapers from both sides to a diameter of 1mm. L: 63mm.

Area VIII (1973): 'black below tumble'

Illus 47

► **4 (cdxxii) Tuning peg**

Tuning peg for a musical instrument with broad head, rectangular in cross section, and round sectioned stem. The string hole tapers from both sides to a diameter of 1mm and is askew to the plain of the peg head. L: 69mm.

Area IV (1974)

Illus 47

► **5 (cxcii) Peg**

Peg, crudely shaped, with spatulate head, possibly an unfinished tuning peg for a musical instrument. L: 75mm.

Area IV (1971): 'black occupation layer below clay'

► **6 (cxc) Tableman**

Tableman with simple compass drawn hexafoil design. Diam: 30mm.

Area IV-SE (1971): 'principal occupation layer below clay area'

► **7 (cdxii) Tableman (?)**

Consisting of a slice through an animal long bone. Diam: 36–40mm with central hole. Diam of hole: 12mm.

(1972)

► **8 (cxciv) Dice (?)**

Consisting of a small cube of polished bone without markings to indicate values. 6 x 6 x 6mm.

Area III (1971)

7.5 Wooden object

► **1 (cdxiii) Bowl**

Fragment of carbonised wooden bowl. Rim diam: c 150mm.

Area I (1972): 'below plinth stones'

7.6 Stone objects

The rock identifications are by the late G H Collins of the British Geological Survey. He noted that the black calcareous shale used for the whetstone might have been obtained from one of the many small outcrops of this rock on Lismore. He thought it probable that two querns were cut from glacial erratics. One is of garnetiferous muscovite-schist, too common a rock type to be given a precise provenance. It is known to occur in the Kentallen district of Argyll and is common in central Perthshire. The other quern, which has not been found, was matched by Collins with the tremolite-schist from Achavady, Glen Roy, Inverness-shire. Tremolite-schists are also known to occur in the Glen Orchy district of Argyll.

► **1 Whetstone, of black calcareous shale, possibly from Lismore**

Wedge-shaped in cross-section, pierced at top and broken at bottom. Its back edge has graffiti or deliberate scratch marks; it shows signs of wear from use. 77 x 17mm.

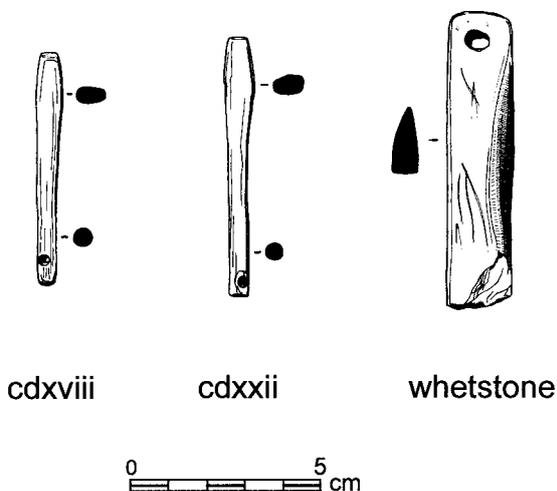
Area IV (1971): 'above bedrock north-west from principal occupation layer'

Illus 47

► **2 (cxcvii) Quern, of reddish-brown garnetiferous muscovite-schist**

Approximately two-thirds of the upper stone of a quern with other fragments. Diam: c 260mm; diam of central hole: 32mm.

(1972)



Illus 47 Two bone tuning pegs and a whetstone

7.7 Architectural fragments

In the excavation assemblage are several fragments of dressed stone, a coarse-grained, yellowish brown sandstone, probably Jurassic, from Ardtornish Bay, Morvern (RCAHMS 1980: 250, no. 383). Among these are two small pieces marked cxxxvi 1972 and cxxxvi 1973, measuring respectively 125 x 100 x 50mm and 105 x 95 x 60mm. They are of near-identical profile, each having a half-rounded outer surface terminating in a straight-edged fillet measuring 1 inch (25mm) wide and part of a shallow undercut cavetto moulding, the 1973 fragment also retaining a dressed edge or joint. They appear to be related fragments of a medieval, probably 13th- or 14th-century, dripstone or hood-moulding, but they are of insufficient size to determine whether the projecting hood of which they formed part was arched and comparable with those above both surviving choir doorways at the former cathedral on Lismore (RCAHMS 1975: 156–63, no. 267, figs 149G, 150, 152, and plates 33A and 33C). A third small broken fragment, measuring 650 x 95 x 55mm, is distinctly curved and dressed on three sides, its outer surface being lightly incised and trimmed. Medieval but not closely dateable, it may have formed part of the surround of a small rounded aperture such as a drainage spout or may conceivably be a fragmentary branch of window tracery possibly comparable with Aros Castle, Mull (RCAHMS 1980: 173–7, no. 333, figs 206A, 207).

At least one other fragment of red, coarse-grained sandstone may be Triassic material from Inninmore Bay, or elsewhere on the coast of Morvern. There is also a dressed fragment bearing a mason's mark. The stone itself, of white, fine-grained Jurassic sandstone of the Lias Group, probably from Carsaig on Mull (RCAHMS 1980: 248–9, no. 380), measures 230 x 195 x 90mm, and the mason's mark, which measures 52 x 55mm, takes the form of an engraved capital M with a cross-bar at the top (Illus 27, C). It can be compared with similar masons' marks on the south cloister doorway and the north choir doorway at the former Cathedral of St Moluag, also on Lismore (Illus 28, A–B).

During the excavations in 1973, two sandstone rybats, which probably formed part of the north-east entrance to the castle, were found among rubble in the east angle of the courtyard. They were wrought

with two chamfered orders, each of 0.13m, and appeared to be of late 13th-century date (RCAHMS 1975: 168, note 2). Neither has been relocated.

8. ENVIRONMENTAL REMAINS

The specialist reports which follow are short on information on the contexts from which the bones and shells were recovered, and labelling now accompanying these assemblages is not much more helpful in identifying their origin. It appears, however, that the material selected for study was considered by DJT to date to the main medieval occupation of the castle. It consists of bones and shells from Areas I–III (including samples 1–3), identified as coming from medieval occupation in the north-west range, and in the case of some material from Area II, from a probable medieval layer in the courtyard. Material from Areas IV–V (including sample 5) was also studied, and at least some of it is identified as coming from medieval occupation in the south-east range. Apparently not included in this report are other bones and shells from Areas V and VI and the garderobe tower, in at least some cases because they were not considered to be medieval. No bone and shell has been located from other locations not mentioned here.

8.1 The mammal bones

The late Barbara A Noddle

8.1.1 Introduction

About 45kg (100lb) of bone was presented for analysis, of which 68% by weight could be identified. Following identification, the minimum number of individuals (MNI) was calculated on the basis of the most frequently occurring part, to which was added further individuals deduced from their size or age not fitting into the most frequent group. It was assumed that different excavated groups contained different individuals.

Where possible, individuals were allotted an age group, the age groups employed being newborn, juvenile, immature and mature. These are deduced from the state of dentition of the jaws and from epiphyseal fusion, or its absence, in the long bones. Chronological ages are not employed because they

depend on data from modern animals whose rate of development differs from this early stock.

However, if the groups were applied to modern stock, the ages would be as follows:

- (i) newborn – under three months
- (ii) juvenile – 5 months to 18 months
- (iii) immature – 18 months to 4 years
- (iv) mature – over 4 years

Complete bones and frequently occurring mature ends of long bones were measured, mainly according to the recommendations of von den Driesch (1976).

The bone was remarkably well preserved and included such fragile bones as the sternbrae and patellae, which rarely survive amongst excavated material. Nevertheless, it must not be thought that the identified material was more than a very small part of the total discarded during the life of the site. Besides fragments which are too small to identify, which may be either the result of deliberate chopping for the stewpot or for glue manufacture, or simply the result of continued activity on the site, quantities of bone are likely to have been removed because of their nuisance value or piecemeal by scavengers. Also, some bones were probably removed for working.

The larger metapodial bones of cattle and horses were always favoured for bone working as they provided thick and robust fragments. Included in the assemblage is at least one specimen typical of the residual material following the removal of splinters for needle production. Bones may also be fragmented in order to remove the fatty marrow but, since the breakage pattern of such bones is variable (Sadek-Kouros 1975), detailed analysis of large quantities is required to demonstrate this conclusively.

The small mammal bones were submitted to Dr Donald Bramwell for identification. These identifications and his comment follow this report. Similarly, the fish bone was submitted to Mr Andrew Jones.

8.1.2 Species composition

It must be assumed that the excavated bone is a fair representation of the total bone used on the site. Table 2, therefore, presents the fragment count not only in absolute numbers but also as percentages. Table 3 repeats the process with MNIs, although

Table 2 Proportion of species (large mammals) by fragments

Source	Cattle	Sheep	Pig	Goat	Horse	Dog	Cat	Red deer	Roe deer	Total
S.1	33 (70%)	9 (19%)	2 (4%)					3 (6%)		47
S.1/3	106 (48%)	93 (42%)	5 (2%)	7 (3%)			1 (T)	6 (3%)	3 (1%)	221
S.3	452 (47%)	385 (41%)	75 (8%)	8 (T)	2 (T)	9 (T)		6 (T)	7 (T)	944
A.I-III	591 (49%)	487 (40%)	82 (7%)	15 (1%)	2 (T)	9 (T)	1 (T)	5 (1%)	10 (T)	1202
S.4	370 (48%)	279 (36%)	105 (13%)	4 (T)	4 (T)	1 (T)		4 (T)	7 (T)	774
S.5	257 (56%)	141 (30%)	58 (13%)	3 (T)	4 (T)					463
A.IV-V	627 (51%)	420 (34%)	163 (13%)	7 (T)	8 (T)	1 (T)		4 (T)	7 (T)	1237
A.II	37 (41%)	25 (27%)	6 (7%)	2 (2%)	3 (3%)		1 (1%)	11 (12%)	6 (7%)	91

T = less than 1%

these are rather low to justify the use of percentages. Whichever method is employed, there is no doubt that the most numerous species, and that providing the bulk of the meat eaten, was cattle – they amount to nearly half the fragment count and about one-third of MNI overall. Sheep comes next and is again fairly constant. Pig is a poor third and variable at different parts of the site.

A few goats were always present and here the MNI is probably a better guide to their numbers than the fragment count owing to the difficulty in distinguishing many of the bones of this animal from sheep. All bones not clearly goat have been designated as sheep. Among the other domestic animals, horse, dog and cat were very infrequent but these animals may not have been disposed of in the same place as food bones. Hunting contributed to the diet but, again for identification reasons, the MNI figures are probably the most reliable in respect of both red and roe deer. Deer bone was not uniformly spread throughout the material.

8.1.3 Age range of livestock

The age range of the animals gives some indication of their economic use, assuming the deposits are a fair cross section of animals slaughtered in the community and are not just a group of selected high-quality material. The numbers of individuals which could in fact be aged were regrettably low but those which were possible are set out in Table 4. In any random sample of livestock remains, it is to be expected that there will be a lot of newborn casualties. These amount to about 10%, even at the present time, so the numbers here need not represent a taste for veal or suckling pig. Similarly, juvenile animals might be casualties, or expected casualties, of their first winter. Although modern animals are killed for their flesh at their juvenile stage, this only became established practice in the 19th century and at this early time, the best carcasses would be provided by immature animals. However, such animals are expensive to produce since they contribute little beside their hide and meat whereas mature animals contribute offspring, wool or labour, according to species. Nevertheless, immature individuals are well represented here in all groups, as well as pig (where this is to be expected owing to the prolificacy of this animal). Perhaps the hides had a high value.

Table 3 Minimum numbers of individuals (MNI) and proportions (large mammals)

Source	Cattle	Sheep	Pig	Goat	Horse	Dog	Cat	Red deer	Roe deer	Total
S.1	5(50%)	3(30%)	1(10%)					1(10%)		10
S.1/3	6(29%)	5(24%)	5(24%)	1(5%)			1(5%)	1(5%)	2(9.5%)	21
S.3	35(37%)	27(28%)	15(16%)	4(4%)	2(2%)	4(4%)		5(5%)	3(3%)	95
A.I-III	46(37%)	33(27%)	21(17%)	5(4%)	2(2%)	4(4%)	1(T)	7(6%)	5(4%)	124
A.II	5(38%)	2(15%)	1(8%)	1(8%)	1(8%)		1(8%)	1(8%)	1(8%)	13

T= less than 1%

Table 4 Age range of individuals: major domestic species only

Group	Cattle				Sheep				Pig			
	N	J	I	M	N	J	I	M	N	J	I	M
S.1	2		1	1	1	1						1
S.1/3	2		2	2	1		3	1	1	1	2	1
S.3	9	3	6	8	4	4	7	2	1	2	6	1
A.I-III	13	3	9	11	6	5	10	3	2	3	8	3
S.4	2		2	3	1	3	2	2		2	2	1
S.5	10		2	6	4	4	3	4		2	3	1
A.IV-V	12		4	9	5	7	5	6		4	5	2
A.II	1	1	2	1			1	1			1	

N - newborn; J - juvenile; I - immature; M - mature. See text.

Table 5 Anatomical analysis of cattle and sheep bone from group S.3 (from A.III) expressed as %

	Cattle	Sheep
Mandible	3	13
Vertebrae	20	15
Upper fore limb	15	11
Upper hind limb	13	12
Carpals and tarsals	10	6
Metapodials	2	8
Phalanges	16	6
Loose teeth	6	15

Anatomical analysis of cattle and sheep bone from group S.3 (from A.III). The figures are said to be expressed as %, but the cattle and sheep columns add up to only 85% and 86% respectively, and it is now impossible to establish what has been omitted.

8.1.4 Anatomical analysis

The cattle and sheep bones have been subjected to a rough anatomical analysis, set out in Table 5. There is a high proportion of fragile vertebrae and a low proportion of durable loose teeth. This confirms the good state of preservation and suggests that slaughter was not carried out on the same site as consumption, since the heavy beef head tends to be fleshed out at the slaughter site. There were some bovine horn cores, however: perhaps these were the residue of horn working. There were also sheep horn cores, for which see below.

8.1.4.1 Cattle

The measurements of bovine bone are set out in Tables 6 and 7. These include an estimate of body weight using the dimensions of the astragalus. All these measurements indicate a very small animal. It is larger than the 9th-century animal or those from early medieval Iona (Noddle 1981), but not as large as the cattle of the medieval period of southern Britain (Noddle 1975a, 1975b). Animals of fairly uniform size are indicated but this may be due to the nutritional standard as well as the genetic make-up. The few horn cores found were of medium length,

Table 6 Measurements of cattle bone (in mm): complete bones

Bone	Length	Proximal width	Distal width	Midshaft width
Metacarpal	165	53	51	27
	172	52	48	29

Table 7 Measurements of cattle bone (in mm): incomplete bones

The figure in brackets indicates the number of times the preceding measurement was made.

Bone	Part measured	Measurement
Lower third molar	Length	33 (2); 34; 35; 36
Scapula*	Minimum neck width	41 (2); 48; 49 (2); 50
Humerus	Width of distal condyles	62; 63 (2); 65 (2); 66; 71
Radius	Proximal width*	66; 69; 72 (2)
	Distal width	60; 61 (3); 65 (3)
Metacarpal	Proximal width*	47 (2); 49 (2); 52; 56
	Distal width	45; 47 (5); 49 (2)
Tibia	Distal width	48; 50 (3); 52 (4); 53; 54 (8); 55 (7); 56; 57; 58; 59
Metatarsal	Proximal width*	39 (4); 40; 41 (2); 42; 43 (2); 45
	Distal width	42; 43; 45 (2); 46
1st phalanx	Length	45; 49 (3); 50 (5); 51 (3); 52 (14); 53 (14); 54 (9); 55 (11); 56 (13); 57 (7); 58 (6); 59 (3)

Estimated body weight in kilogrammes:

158 (5); 163 (2); 166 (3); 175 (3); 176; 181; 184; 189 (2); 190; 196 (2); 200

* These specimens may include immature bone.

round, smooth and upward curving. The frontal junction formed a fairly high peak. There was some evidence that the animals were inbred: two different excavated groups contained fused proximal sesamoid bones, an abnormality that this writer had not previously encountered, but it is possible that both came from the same individual. Such bone anomalies tend to be congenital. One of the juvenile femora bore a nutrient foramen in an unusual position for cattle, on the proximal anterior surface; this is rare among modern cattle apart from the Welsh black breed.

8.1.4.2 Sheep

These animals were relatively larger than their bovine counterparts when compared with southern

examples (Noddle 1975a, 1975b). The shape of the neck of the scapula suggests some primitive short-tailed animals, some intermediate ones and some decidedly modern specimens (Noddle 1978). Several horn cores were found, all of which were fairly similar in form, but there was also a specimen of frontal bone bearing a short frontal scur and some completely polled specimens. These last were noted to have projecting upper orbits, a feature that has been observed in fairly advanced long-tailed Roman and medieval animals of the south (Armitage & Goodall 1977). Among the bones from within the south-east range, a polycerate (four-horned) sheep frontal was found. This phenomenon was common in medieval Scotland and still occurs in present-day Hebridean sheep (Noddle 1980).

8.1.4.3 Goat

A complete goat metatarsal was found. This indicated that the goats were the short-legged mountain variety, exemplified today by the feral goats of Rhum and Galloway.

8.1.4.4 Pigs

The few dimensions of pig bones that were obtained are set out in Table 8. Again, these indicate a small animal by medieval standards but it might be that the lower third molar length, where only a single measurement was obtained, is exceptionally small. This is normally the most reliable dimension for assessing pig size. Also, this size may be the result of malnutrition: the mandible of a mature pig was found with a very crowded and uneven tooth row, usually the result of severe malnutrition. The metapodials of the pigs were fairly robust: this may be due to a variety of causes, nutritional and genetic, but also could be the result of confining the animal closely in a sty (Hammond et al 1971).

8.1.5 Abnormalities and pathology

As well as the specimens already described, there was a number of abnormal and pathological bones. It is rare for disease to affect the morphology of bone, other than deficiency diseases such as rickets. Most pathology is either the primary or secondary result of trauma, such as healed bruises and fractures or arthritis and abscesses which follow penetrating injuries or continued abuse of a joint.

The following were observed among the cattle bones. Of the seven lower third molars found,

one lacked a posterior fifth pillar. This is not uncommon in all periods. Erosions were observed on the joint surfaces of the first and second phalanges and the mandibular condyle. Similar specimens are illustrated and discussed by Baker & Brothwell (1980) who regard them as non-pathological. There were two examples of arthritis, one in a femur head and the other in a distal metacarpal: the latter was severe. The ramus of a left mandible bone had a large conical exostosis in the incisor region: these teeth, and the second and third premolars, appear to have been lost in life. Osteomyelitis following a penetrating injury is believed to have been the cause.

There was one abnormal and pathological sheep bone, a distal femur. The joint surface carries a central groove which is the remains of the double joint that occurs in the ancestry and embryo of the species: this groove is not uncommon in modern cattle but it has not hitherto been observed in sheep of any date. The femur also carries a number of pits which, in the opinion of Baker & Brothwell (1980: 109–12), may be the result of infection with *Erisipelothrix rhusiopathiae*.

There was also an abnormal goat metacarpal, exhibiting distal exostoses and arthritis, possibly the result of a penetrating injury.

8.1.6 Comment

Although little material from a comparative situation and date has been published, there are two relevant reports. Harcourt (in Turner & Dunbar 1969–70: 178–9) discussed a small quantity of bone from Breacachadh Castle, Isle of Coll. He did not

Table 8 Dimensions of pig bones (in mm)

The figure in brackets indicates the number of times the preceding measurement was made.

Bone	Part measured	Measurement
Lower third molar	Length	26
Scapula*	Minimum neck width	18; 20; 21; 24 (2)
Humerus	Width of distal condyles	29; 30 (3); 32
Radius*	Proximal width	26; 27 (2); 28
Astragalus*	Maximum length	36; 38; 40

* These specimens may include immature bone.

Table 9 Small mammal bones

Source	Animal	Number of identified fragments	Minimum number of individuals
A.I-III	Stoat	11	1
	Water vole		9
	Field vole		3
	Wood mouse		1
A.II	Otter	1	1
	Stoat	2	1
	Water vole	2	1

make any estimate of species numbers but noted some measurements. Those of cattle were similar to those given here but a number of sheep bones, which might well come from the same animal, were rather longer. Barnetson (1981 and pers comm) described material from a similar period, the Douglas occupation of Threave Castle. There were roughly equal quantities of cattle and sheep bone, amounting to 80% of the total. Most of the animals were of 'prime meat age' ('immature' in this paper) and she formed the opinion that high-quality animals were purchased. Despite this, the Lismore cattle were slightly larger in size: the sheep, however, were slightly smaller but not so many of the Threave bones could be measured.

8.2 Small mammal bones

The late Donald Bramwell

The identity of small mammal bones recovered are set out in Table 9. The bones from S.1/3 were found together and are thought to be the contents of a stoat's nest. The bones were too fragmentary to make a precise count.

8.3 Bird bones

The late Donald Bramwell

There are surprisingly few wild bird bones on this site compared with those of a similar period in the Northern Isles. The possible presence of peregrine falcon may indicate that hawking was practised, but the majority of bird bone was domestic fowl (Tables 10–11). A number of the bones of this species were complete and their measurements are listed below.

There is a wider disparity in the dimensions of these bones than can be accounted for by simple sexual difference, and the smallest fowl bones seem to have come from bantam-sized individuals.

8.4 Fish bones

A K G Jones

8.4.1 Introduction

Small numbers of fish bones, collected from bags of animal bone, were submitted for identification. All bones were recovered by hand-picking trowelled deposits: thus it is probable that small fish bones have been overlooked and the species list biased in favour of large-boned fish. In general, the condition of the fish bone from Lismore is poor: indeed, many bones flaked and crumbled while being measured. As a result, measurements in some cases have been taken to the nearest millimetre rather than to 0.1mm. Of particular interest, when considering the state of preservation of fish bone, are the mineralized vertebral centra from members of the cartilaginous fish (dogfish, sharks and rays). These centra are well preserved and did not suffer during the examination. It is commonly thought that the remains of cartilaginous fish are likely to be under-represented in archaeological deposits because dermal and skeletal elements are not classified in this group. However, here we have remains of cartilaginous fish in a better state of preservation than the remains of teleostean (bony) fish. Clearly, soil conditions are an important factor to be considered when the problem of differential preservation of different vertebrate groups is discussed. Bones have been identified using the comparative collection of fish skeletons held at the Environmental Archaeology Unit,

Table 10 Bird bones

Source	Species	No. of identified fragments	Minimum number of individuals
S.1/3	Fowl	9	3 (including juvenile)
	Rook/crow	1	1
	Starling	1	1
S.3	Fowl	1	1
S.4	Fowl	29	10 (including 3 juvenile)
	Goose	4	2
	Duck	1	1
	Blackbird	1	1
	Golden plover	1	1
	Peregrine falcon (?)	1	1
S.5	Fowl	7	3
	Goose	3	1
	Rook or crow	1	1
S.2	Fowl	5	3
	Goose (prob. domestic)	2	1
	Crow	1	1
	Blackbird	2	1
	Goosander	1	1

Table 11 Dimensions of bird bones (in mm)

Species	Bone	Length in mm
Fowl	Humerus	63; 63.5; 73.5
	Radius	60.6; 63.7; 65
	Carpometacarpus	38.9
	Femur	67; 68; 77; 82
	Ulna	53; 67
	Tarsometatarsus	61; 87; 93
Blackbird	Tarsus	32
Goose	Femur	85

University of York. Three measurements on vertebral centra have been taken using sliding calipers. These are, firstly, the greatest medio-lateral breadth of the articulating face of the centrum; secondly, the greatest dorso-ventral height of the articulating face of the centrum and, thirdly, the greatest cranio-

caudal length of the centrum. Care was exercised to ensure that the jaws of the calipers measured across the articulating surface rather than the greatest width of the centrum. Details of all measurements are available on application to the Environmental Archaeology Unit. Using these measurements, it

has been possible, by cross-referring to modern specimens, to produce estimates of size of the fish represented in the sample. Nomenclature follows Wheeler 1969.

8.4.1.1 *Cartilaginous fish*

Also known as Elasmobranchil or Chondrichthytes, the cartilaginous fishes form a large group of marine fishes including sharks, rays and dogfish. As their name suggests, the skeleton is composed of cartilage, a substance that rots easily once the animal dies. Despite this, some of the skeletal elements, including the vertebral centra, produce mineralized cores which persist in archaeological deposits. Unfortunately, it is not possible to identify the vertebral centra from Lismore more closely, but it is clear that the fish represented were large specimens.

8.4.1.2 *Conger conger (L.) (conger eel)*

This fish, notorious for its aggressive nature, is usually found among rocks or on rough ground. It is frequently captured on hooks at depths of 20–60m. Conger eel can grow to more than 250cm, weighing in excess of 60kg.

8.4.1.3 *Gadidae (cod family)*

This family contains many of the most important commercial fish in British waters. Cod, pollack, ling, whiting, saithe and haddock are members of the family. The bones ascribed to this group are either too poorly preserved or bear insufficient morphological characteristics to allow closer identification.

8.4.1.4 *Pollachius cf. pollachius (L.) (pollack)*

The supra-cleithrum (a bone which links the cleithrum or shoulder girdle to the back of the skull) diagnosed as *Pollachius cf. pollachius* (pollack) has been compared closely with a number of modern specimens of British gadids and compares best with pollack but, as this particular bone is rather variable, a definite identification has been impossible. Nevertheless, it is not at all unlikely that pollack is represented in the deposits from Lismore as it is a species which is widely distributed and large specimens are most abundant near rocks or on rough ground in inshore areas. The majority of pollack are still taken with hook and line and are frequently taken by sea anglers from the shore.

8.4.1.5 *Pollachius virens (L.) (saithe)*

This fish, also known as coley or coalfish, is particularly common in northern inshore waters. The bones in the present sample are from large specimens (80–90cm) but the species can attain lengths of 120cm. The saithe migrate to spawn in deeper waters in the spring and valuable fisheries exploit these spawning migrations. Before the introduction of steam-powered trawls, lines bearing several baited hooks are most likely to have been used to catch saithe. Saithe has been identified from a single maxilla (a bone which articulates with the upper jaw): the same context also produced a number of bones which are almost certainly saithe and are consistent in size with the saithe maxilla bone but, because these bones are damaged, it is not possible to be absolutely certain of their specific identity.

8.4.1.6 *Gadus morhua L. (cod)*

Probably the most often reported of all fish from archaeological excavations in north-west Europe and one of the most important food fish of British waters, the cod is abundant in both inshore and offshore waters. It can grow to 150cm and 40kg, being caught today principally in trawls, although hooks and line and various nets can also be used in its capture.

8.4.1.7 *Molva sp. (ling)*

Three species of ling inhabit British waters but it is impossible to determine which species is represented by a single vertebral centrum. All the lings are large, long-tailed carnivorous fish which live in deep waters but occasionally wander close inshore, whence they can be caught by hook and line.

8.4.2 Conclusions

All the fish recovered from this site are large specimens of marine fish which have been used for food for thousands of years. The majority of identified species are members of the Gadidae (cod) family which, together with conger eel and the cartilaginous fishes, were most likely to have been captured by hook and line. While it is likely that some of the fish were caught from the shore using lines, it is probable that small boats would have been necessary to provide supplies of fish.

The presence of head bones and vertebral centra of species such as saithe suggests that some fish was brought to the site as fresh fish rather than imported stock-fish. It should not be forgotten that bones of other kinds of fish may have been present in the excavated deposits but have been overlooked because of their small size.

9. GENERAL DISCUSSION AND SOME CONCLUSIONS (DJT)

9.1 Castle occupation and dating

Despite the Scottish Gaelic *dùn* element in the place-name, little trace of pre-castle occupation was found on site or observed in the vicinity. A number of pieces of worked stone of prehistoric type were found during the excavation, indicating that there may have been some prehistoric occupation on the hilltop. No trace was found, however, of the *dùn* itself, from which the lands and castle derive their name.

The excavations showed to DJT's satisfaction, largely on the evidence of the Balliol coin sealed beneath infill in the courtyard (**Coins and jettons**, no. 13), that the internal arrangements of the castle were not completed until after 1292, the beginning of King John Balliol's reign (1292–6). Architectural and coin evidence strongly suggested to him a construction date of *c* 1295–1310, while the first mention of the castle in a document of 1304 provided evidence that the castle could have been occupied at that date, but not necessarily that it was complete (Paul 1882: 670–1, no. 3136 (6); Turner 1998: 649).

He found that the architectural detailing of Achanduin, such as it was, was linked by similar masons' marks and one closely comparable moulding to those of the surviving choir of the medieval cathedral of St Moluag on Lismore, which has been ascribed to the early 14th century on architectural grounds (RCAHMS 1975: 22–3, 156–63, no. 267; see also Brown & Duncan 1957–65). Given also that the construction of the castle and the cathedral church on Lismore probably involved the same masons, he considered them to be arguably close in date if not precisely contemporary.

DJT also saw links, based mainly on the similarity of masons' marks and freestone, between the

cathedral and the second phase of another major object of MacDougall ecclesiastical patronage in Lorn, Ardchattan Priory, which, following a primary construction phase of *c* 1230–50, has been ascribed to the 15th century (RCAHMS 1975: 99–115, no. 217). Of the Ardchattan masons' marks, those on the two-bay pulpit and on the refectory doorway include the L-square found on the sedilia and piscinae at Lismore Cathedral (RCAHMS 1975: 101, figs 89A, B and H; fig 89C; Illus 28, D and F), and on the piscinae at Ardchattan is a mason's mark in the form of a broad arrow that is also found on the south choir doorway of Lismore Cathedral (RCAHMS 1975: 101, fig 89E; Illus 28, E).

Accepting that arguments for contemporaneity based on masons' marks alone were inadequate, DJT observed that the freestone used in the second phase at Ardchattan had been identified as Carboniferous sandstone from Inninmore Bay, Morvern (RCAHMS 1975: 101), and that other use of this particular sandstone in Lorn had been ascribed by RCAHMS to the 13th or early 14th centuries. DJT thus felt that a reconsideration of the dating of the secondary work at Ardchattan would not be out of place: it might prove closer in date to the cathedral on Lismore – and indirectly to Achanduin – than had been previously thought.

The excavations at Achanduin also showed that the internal buildings of the castle were not completed on the scale at which they had been planned. The indication that a north block was originally set out more elaborately than it was eventually built suggests a much-reduced change of scheme, possibly as a result of financial, social or military difficulties. As indicated above in the historical background, DJT believed the change of plan in the north corner of the enclosure could plausibly be explained by the uncertainties of the early 1300s and specifically by the sharp setback in MacDougall fortunes following their military defeat in 1308.

DJT found that the archaeological record of the primary occupation appeared to stop around 1400, and the finds from the occupation layer did not lead him to suspect the documented occupation of 1452 (Thomson 1819: 14–15; and Thomson 1877: 50–1). The finds in the courtyard of objects from *c* 1500 were difficult for him to interpret, but they might represent artefacts lost by a party in temporary occupation or refuge under duress. The troubled

years around this period at the end of the Lordship of the Isles could provide a context.

After the destruction of the castle had begun, shell middens accumulated in the lee of its walls. These probably represent temporary occupation, probably of a seasonal nature and possibly associated with transhumance (cf Hardy & Caldwell 2009). Fragments of two hand querns were associated with this occupation, as were a group of sherds of decorated craggans similar to (unpublished) sherds dated to the 16th century from the Udal on North Uist.

After the castle was abandoned – after, in fact, much of the internal walling had collapsed – a freestanding building (House C – see below) was built on the north-east side of the courtyard. This building obstructed the north-east entrance to the courtyard and partly overlay the north-west range. It was of two chambers with low walls either of drystone or clay-bonded construction. These presumably served as bases for turf walls above, and a turf thatched roof could be reasonably assumed.

The excavated remains of this two-chambered, sub-rectangular building demonstrated that its footings rested on black soil and tumble overlying medieval occupation levels, so it was evidently of post-medieval date. Originally of one chamber, it had been subsequently sub-divided by a partition wall of rubble masonry bonded in clay mortar. The date of this secondary structure is uncertain, but the walls sealed fragments of a jug (no. 63) which is unlikely to have been earlier than the 17th century.

As noted above, DJT at first believed that the chamber nearest to the south-east range had served as some kind of kiln or furnace since it contained a deep layer of fine ash and cinder. The draught for the furnace was derived from the window to the undercroft of the south-east range of medieval buildings. DJT found the kiln or furnace activity difficult to explain, and recognised that the only suggestion he could offer, kelp-burning, was highly implausible. At a later stage, however, he came to the conclusion that this furnace or kiln was actually of earlier date than the secondary building.

A separate apartment had been formed within the east angle of the ground floor of the south-east

range by inserting a stone-built wall some 0.6m in thickness. The stones of this wall were not bonded into the masonry of the north-east wall. The entrance to this room appeared to have had a timber door frame – the sockets of the uprights could be recognised – but no evidence of the date of this partition was forthcoming except that it predated the collapse of the castle masonry in its vicinity.

9.2 Structural evidence

9.2.1 Character and scale of building

While accepting that negative evidence might at best be regarded as inconclusive, DJT pointed to the absence of any part of the Achanduin structure being identifiable as a chapel, a somewhat surprising omission from an episcopal residence. The closest ecclesiastical site to the castle is the slight and ambiguous remains of an alleged chapel and burial-ground on nearby Bernera Island (RCAHMS 1975: 117, no. 224).

He also felt that the substantial physical character of Achanduin was out of line with what was known of other early bishops' residences. The subsequent excavation between 1986 and 1994 of the bishops of Moray's palace at Spynie (Lewis & Pringle 2002), for example, demonstrated to DJT the comparatively modest nature of 13th- or 14th-century Scottish bishops' castles or palaces, even when the bishops, as in the case of Moray, were relatively prosperous.⁸

9.2.2 Timber construction

The range that occupied the north angle of the courtyard appears to have been less substantially built than that occupying the south-east side: no trace of its inner walls remained visible before excavation and no trace of any inner walls were revealed by the excavation. DJT deduced that they were of either unmortared drystone, timber-framed or turf construction. The presence of an open hearth demonstrated to him that the two-storeyed buildings intended here had never been built; a single storeyed structure had occupied that position in medieval times.

The span of the two-storeyed south-east range was such that if the joists were not to be too unwieldy or the superimposed floor insufficiently

rigid, there must have been an intermediate support for the upper floor. A timber arcade consisting of a line of Samson posts, carrying an arcade plate or lodging beam, provided an economical method of supporting a floor above a wide undercroft. Samson posts were often raised on padstones but no convincing sign of padstones were found during the excavations. The presence of solid living rock immediately beneath the castle doubtless rendered padstones superfluous. While Samson posts are widely found in southern Britain, the excavator was aware of evidence for their use in association with a longitudinal bressumer beam to carry the joists of an upper storey at only one other site in Scotland: the 13th-century hall-building on Fraoch Eilean on Loch Awe (RCAHMS 1975: 212–17 at 213, no. 290). That structure has a span of 8.8m and the bressumer beam was about 2m above ground-floor level; the RCAHMS account suggested that the transverse joists may have been notched into it.

One of the best surviving groups of Samson post and lodging- or T-beam construction among the more numerous English examples are the timber arcades associated with undercrofts below The Rows in Chester, many of which have been dendrochronologically dated (Brown 1999: 44–8). This group provides sufficient evidence to argue for a development from a simple form through a transitional type to a complex design. Dendrochronological sampling and carpentry detail at Chester, together with comparable dated structures elsewhere, suggest a chronological evolution, the first two forms of which fall in the late 13th and early 14th centuries and might have been akin to the lost timber arcade at Achanduin.

The Chester timber arcades in their simplest form consist of vertical posts, usually chamfered and either tenoned directly into the soffit of a lodging-beam or into a bolster which, in turn, supports the beam. Where there is no bolster, braces may be found (Brown 1999: 44–5, figs 48–50), and occasionally a bolster may be braced. At Chester, arcades of simple type, with and without bolsters, run the length of undercrofts and carry lodged joists. A subsequent development of the simple arcade has Samson posts that thicken to gunstock heads and also support braced transverse beams, a development seemingly

associated with aisles of around six metres' width on either side of the arcade.

At Achanduin there was no sign of seating for the outer end of such transverse beams and the lesser 'half-width' of the undercroft would probably not have justified that approach. It is more likely, therefore, that the floor over the undercroft at Achanduin was supported on a timber arcade of the simpler type with lodged joists, and probably with bolsters beneath the lodging-beam or arcade plate. As the lodging-beam would have been approaching 21m in length, it would have required two or more scarved joints, and these would have necessitated the support offered by bolsters. The arcade need not have been of regular bays, however. The surviving seven bays of the central arcade of the former domestic chapel of the palace of the bishops of Ely at St Etheldreda's Church, Ely Place, London, for example, are distinctly irregular; they probably date from the 1290s (RCHME 1925: 43–63; Hewett 1980: 123–4).

9.3 Architectural ancestry and regional context

DJT's Scottish archive contains much discursive material on medieval architecture and history of the western seaboard arising out of his work on Coll and Lismore, a corpus that, now lodged in Historic Environment Scotland, constitutes a useful resource accessible to all researchers in these fields. Whilst drawing attention to their potential value, it is not possible here, nor would it be fair to his scholarly legacy, to attempt to reconstruct from those various scattered threads his considered views on the place of Achanduin in its wider context.

However, during what proved to be his final illness, DJT was actively preparing a paper on architectural ancestry and affinities of Achanduin, setting out his views on the place of the castle in the lineage of West Highland and Island castle architecture. He was also working on another which set the castles and brochs of Lismore in their local, regional and strategic maritime contexts. Rather than adding them as discursive codas to the detailed excavation report, it was decided that, through the good offices of Audrey Monk, his literary executor, these two papers would be published in the discrete form which he was planning for them (Turner 2016).

10. OBSERVATIONS ON THE EXCAVATIONS

David H Caldwell and Geoffrey P Stell

Throughout this report the authors have attempted to reflect or reconstruct as transparently as possible the approaches adopted by the excavator, and to articulate faithfully the conclusions that he reached as well as the thinking that lay behind them. Inevitably, however, in re-examining the evidence presented by the artefacts and the excavation records, the authors have formed their own views on many aspects of the excavations: some merely reinforce DJT's conclusions, while others suggest fresh interpretations and point to possible further lines of enquiry which he may or may not have eventually come to and pursued himself.

Offered as a supplementary contribution to an understanding of Achanduin Castle, these alternative suggestions have been brought together in a discrete section, segregated from the main narrative in order to avoid distorting the authentic voice of the excavator. They are presented here in the form of a series of observations on structural remains and on phases of occupation that appear to have been revealed by the excavation but have not previously been the subject of detailed comment or discussion.

10.1 Structural evidence

10.1.1 The hall or south-east range

The castle, in so far as it consists of a rectangular enclosure and hall range, appears to be largely the work of one phase of activity. Here, a further comment on DJT's interpretation that the ground floor of the hall range was sub-divided into five bays may be appropriate. It is difficult now to assess the quality of the evidence for the two settings for posts supporting the hall floor that DJT understood he had encountered (see the account of Area VIII excavation and DJT's discussion of Samson posts above), but their positions would seem to indicate that there would only have been a need for one more and therefore there would only have been four bays. The evidence from Area VIII demonstrates a significant alteration relatively soon after the south-east range's erection, namely, the creation of a chamber in its east corner. Confined within its

walls was 'occupation', also described as 'burned clay', suggesting that this space was created for a particular function, most likely to do with cooking.

Many clenched nails or rivets, providing evidence for cladding by boards, were found in the collapse layers generally across the site, especially in the rubble deposits adjacent to the south-east range, suggesting the possibility that the upper part of its courtyard wall might have been of boarded construction. The rivets could, at least, indicate boarded roofing, possibly shingles (Walker 2001).

10.1.2 The forebuilding

The forebuilding is obviously an addition to the exterior of the north-west curtain wall, masking an entrance gate. It is of medieval date, perhaps not too much later than the construction of the curtain walls. Understanding its function has presented various difficulties, and here the authors would like to propose an interpretation – that the forebuilding was probably a tower, and housed a cistern – which is at variance with DJT's view that it was to provide protection to the main castle entrance and housed a pit for the operation of a drawbridge.

Much of the fill within the walls of the forebuilding can be interpreted as midden, mostly deliberately dumped after it ceased to function as a pit (Illus 25). Over this material are two deposits, the upper labelled 'angular fragments, loose black', and the lower 'small stones, loose black'. Together, these represent a soil profile that developed at a period of minimal human interaction with this feature. It was then filled in by tumble and other debris from the collapse of adjacent walling. There does not appear to be any convincing evidence for paving or cobbling covering its top. The idea that it served as a platform goes back to MacGibbon & Ross (1889: 76) who, with no conception of it as a drawbridge pit, envisaged a landing reached by a ladder, which then gave access to the castle via the adjacent entrance. They describe how the forebuilding was built up to the level of the courtyard, here about seven feet (2.13m) above the ground outside. That there might have been a timber platform in front of the entrance prior to the construction of a drawbridge is suggested by two putlog holes (Illus 24) which may have supported it, but the platform would have become

redundant once the drawbridge and its pit were in place.

The authors consider that none of these interpretations can be regarded as conclusive. The gate here may, or may not, have been regarded as the main castle entrance during some of its history, especially given the evidence for medieval buildings restricting use of the gate in the north-east curtain (see below), but it is difficult to understand the need for a drawbridge in this position and exactly how it would have operated without a supporting outer pier. The two putlog-holes may indeed have been, in a first phase, to support a timber platform and/or stair up to the entrance, but the evidence for a stone platform across the top of the forebuilding in a later phase is unconvincing. On the other hand, a lateral tower blocking access along this ledge-like flank of the castle and perhaps serving as an annexe to a putative north range would make sense.

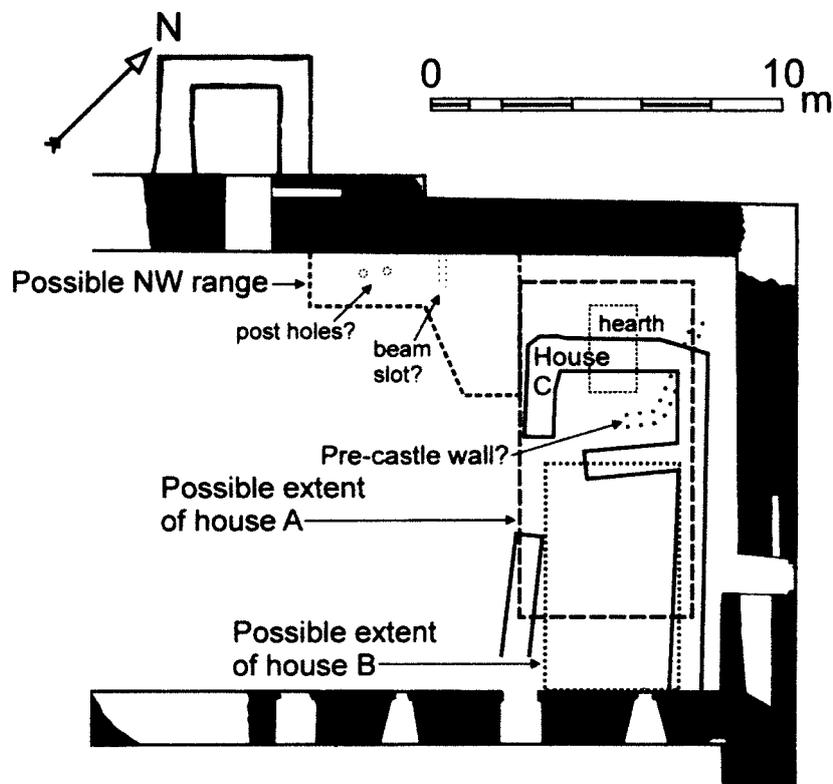
The possibility that the pit in the forebuilding served as a cistern is suggested by the recorded fact that its base is covered with 'medium size flat stones

(mortared)', presumably intended as a watertight seal. Water cisterns are normally below, or partially below, ground, but at Achanduin it would have been easier to place a cistern where the ground falls away rather than dig one into the bedrock. That there might have been a natural spring here is a possibility worthy of further exploration.

The Edward II penny (no. 11) found in the forebuilding in 'occupation soil dumped in bridge pit' could have remained in circulation long into the 14th century, but probably indicates that the cistern did not have a particularly long life.

10.1.2 A north-west range and free-standing house [A]?

There appears to be more evidence for medieval structures in the north corner and along the north-west curtain wall than DJT's account suggests (Illus 48). The accumulated evidence from Areas III and VI of charcoal (from worked wood), nails and burnt daub points persuasively to rather more substantial structures than he recognised, probably timber-



Illus 48 Plan showing traces of medieval structures in the north corner of the courtyard and along the north-west curtain wall

framed and possibly burnt-out. It is noteworthy that the two samples of daub from this area are quite different in character, one with grass temper that might conceivably have been walling material, the other, like comparable pieces from Area IV, possibly from an oven.

DJT recognised a feature in Area I, not unreasonably judging by a photograph and plan, as a beam-slot for a medieval range along the inner face of the north-west curtain wall (Illus 49). It is at right angles to the wall. A plan also indicates the identification of two post-holes in the same area. The extent of the supposed medieval floor belonging to this range indicates a relatively narrow structure, perhaps largely designed to be an adjunct to a more substantial, free-standing house, and to provide access from it to the garderobes in the curtain wall.

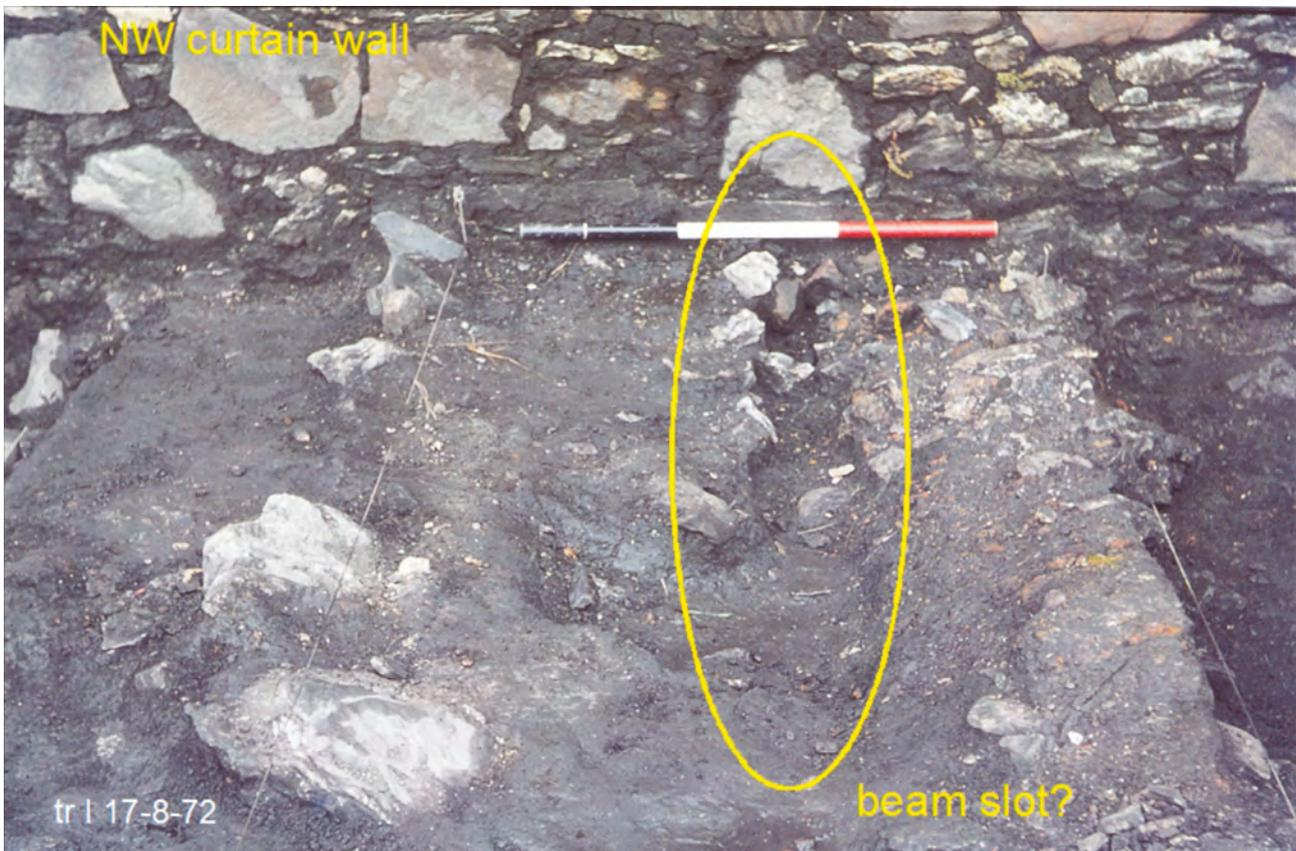
The evidence for such a free-standing medieval house in the north corner of the courtyard is derived from a study of the presence or absence of occupation features in photographs and on plans and sections. On the Area III section in Illus 17 they include 'medieval hearth', 'black' and 'red

clay'. This house is here labelled as 'A' to prevent confusion with two later free-standing buildings that we have designated as 'B' and 'C': aligned with the curtain walls and with a large open hearth on its earth floor, its approximate extent could have been about 5m SW-NE by 9.5m NW-SE. The fact of it occupying approximately the same space as a later post-medieval house (C) explains why its walls were not identified.

Because of the digging of the drain (see below), it is unclear whether or not House A was actually built up against the wall of the hall range but it was sufficiently close to have blocked one of its windows, suggesting that the hall range was already a ruin when House A was erected. House A would also have restricted easy access through the gate in the north-east curtain wall.

10.1.3 A late medieval free-standing house [B]?

Another free-standing house, stratigraphically of later date, can be deduced to have stood in the courtyard. Again, the evidence consists of observable floor and/or occupation deposits. These can be



Illus 49 Evidence of a north-west range in Area I

seen on the Area VI section reproduced in Illus 17, labelled as 'black', and at the south-east end of the Area III section shown as 'black' overlaid by 'red clay'. Its extent and shape are uncertain: it was probably on the same alignment as House A, but smaller, not extending so far to the north-west. The Area VI section also shows that between its floor and that of House A is a deposit of 'brown, containing bone', up to 1m thick, presumed by us to be midden. Midden deposits can be expected to have piled up outside rather than inside a building that was in use.

10.1.4 The date and function of the drains

There are difficulties in understanding the date and function of the drain(s). Shown exiting the north-east and north-west curtain walls, they might be supposed to have been part of the original design of the castle, but, as revealed by excavation, they appear to be rather later in date. From the evidence of photographs and sections, the drain uncovered in Area II, and probably Area IX, is cut through the soil profile which represents the medieval surface of the courtyard. Also, as shown in Illus 19, the drain sits high in relation to the entrance to the south-west entrance into the hall block, appearing as if it could have been inserted there only after this range had fallen into ruin. In Area VI, the place of the drain in the sequence of deposits is less clear cut (Illus 17 and 21), but it seems to have been dug through the floor of House A and the cut for it sealed with a thin 'shell layer', over which is the 'brown, containing bone' identified by us as midden.

10.1.5 A kiln or oven?

The supposed kiln or furnace and associated ash deposits ('burnt material' on Illus 12; 'red/yellow ash' on Illus 17) excavated in Area VI also present considerable problems of interpretation, and their place in the stratigraphic sequence is not secure. The furnace was traced as a small circular hollow, initially identified by DJT as having been for metalworking, a view he later retracted. His idea that the adjacent window in the hall block was where a tuyère was positioned is fanciful, while the ash sample from Area VI is just that, containing no metallic element such as hammer scale, clinker or slag. Photographs

of excavation in Area VI show a substantial piece of carbonised wood in the ash deposit, but it is difficult to believe that the ash results from a conflagration of the castle; other tell-tale signs of such an event, like fire-damaged walling, are lacking. Nor does the evidence appear to relate to other activities, like the production of kelp, drying of grain or production of lime. The ash and hollow may quite simply represent the remains of a small oven of a type that might have been used in food preparation, perhaps baking or brewing.

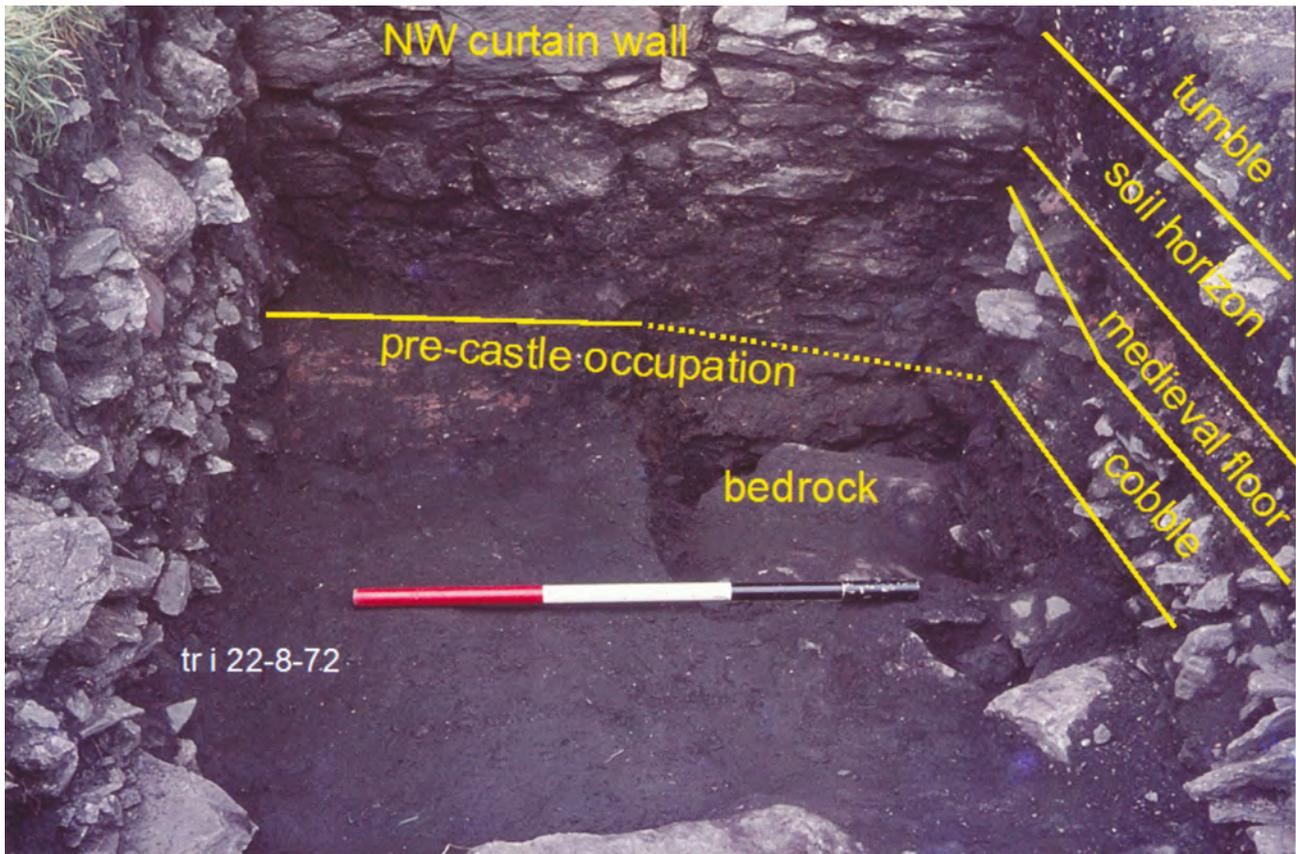
It is clear that the ash deposits date to a time when the hall block was already in ruins since they extend over its reduced courtyard wall and the rubble infill of its north-east entrance. The ash deposits appear to have been thickest (up to 0.4m) around the supposed oven and are described as red or yellow. It is probable, on the basis of the Area VI section in Illus 17, that activity involving the oven took place in a hollow adjacent to the ruins of the hall range after the demise of House B.

10.2 Phases of occupation (Table 1)

10.2.1 A pre-castle phase?

Substantial evidence for pre-castle occupation of the site can be identified in Areas I and III. It takes the form of a deposit of material, up to 15 inches (38cm) thick. It appears as red in colour in photographs, presumably because it is heavily impregnated with ash. It is labelled on a section drawing of Area I as 'possible lower occupation layer', lying over the surface of the bedrock and sealed by the overlying 'cobble', which is thought to represent levelling and the creation of a surface within the newly erected castle. There appears to be no means of dating the deposit, which could have accumulated over a long period of time. DJT did not identify whether it was cut by the base of the north-west curtain wall, a point that also cannot be established from the excavation archive (Illus 50).

There is an intriguing possibility that DJT actually excavated part of the wall of a pre-castle building, visible in photographs and plans of Area III as an alignment of small earth-fast stones, about 0.3m wide, running approximately north-south before turning east-west. It ran under the north corner of the post-medieval house and appeared to be protruding through the floor of a medieval



Illus 50 Evidence of pre-castle occupation in Area I

structure in this area. It may tentatively be identified as the footings of a lightweight wall of timber and/or wattle construction. Its stratigraphical relationship to deposits and structures associated with the medieval occupation of the castle is not clear, but it is on a different alignment from anything else in the castle.

10.2.2 Medieval occupation

It is probable that the summit of the hill chosen for the castle was stripped of turf and structures prior to the commencement of building operations. That work would have exposed in most areas an undulating bedrock which had to be levelled in some places, and infilled with fragments of rock and clay in others. A layer of ‘cobble’ was identified in most areas, sealing the fill deposits in the bedrock and serving to support the medieval occupation deposits. It appears from photographs that this ‘cobble’, also described as ‘stones, angular rubble’, is a crude metalling composed of shattered rock, almost certainly the local bedrock, the individual

pieces being at most about 15cm long.

In the areas opened up in the courtyard, a soil of some depth and development overlies the ‘cobble’ and bedrock, and DJT uses terms like ‘black soil’ to refer to it. It is, in essence, the medieval surface of this open space, probably a natural development, perhaps cultivated in post-medieval times.

It need not be supposed that the castle was occupied more than sporadically in the medieval period by a lordly or episcopal household. Some of the recovered finds, including coins and a fine brooch (no. 6/lx), indicate a high-status presence in the 14th century. An interesting puzzle is the lack of white gritty and red gritty wares, typical of the pottery made in the Lowlands of Scotland in the 13th and 14th centuries and recovered in large quantities from the high-status site of Finlaggan in Islay associated with the MacDonalds (Caldwell 2014: 230–1). The John Balliol halfpenny (no. 13) found in Area III ‘below rubble filling crevice of bedrock and forming pavement of courtyard’ appears to be the most tangible evidence for dating the building of the castle, providing a *terminus post quem* of 1292.

10.2.3 Abandonments

The interpretations advanced above by the authors hint at a complex sequence of occupation, building changes and use of the castle throughout medieval times. Equally, abandonment should not be supposed to have been one deliberate event. The juxtaposition of Houses A and B to the hall range and the spread of ash in the east corner of the courtyard suggest the possibility that the hall was abandoned in a ruinous condition before the end of the medieval period. The ‘occupation’ in the hall undercroft identified on the Area IV section (Illus 20) may largely represent events at the very end of the use of the hall range. How else, for instance, might the presence of three bone pegs from one or more musical instruments be explained? Such items would surely not in normal circumstances be lying scattered around in the undercroft of a hall. More work on the recovered structural ironwork, principally nails and rivets, and more precise information on where it was discovered, might have offered better clues as to whether the woodwork in the hall range was burned, left to rot or deliberately dismantled. There is evidence from within the hall range, particularly in Area IV, of the development of a soil profile, ‘black/grey’ overlying ‘soft grey clay’, between the end of medieval occupation and the subsequent collapse and dismantling of its walls.

It is here tentatively suggested that the medieval occupation of the castle represented by House A and House B might be later in date than the use of the hall range and that the midden identified by us in Area VI is indicative of a period between the occupation of House A and House B when the castle was not inhabited by a noble or episcopal household. It is difficult to suggest a dating framework, although given that finds associated with occupation of the hall range include a number of sherds (nos 30–34, 42) of late medieval white ware, dated by Hall and Haggarty to the 15th or 16th century, the construction and occupation of House B might be pushed well into the 16th, if not the 17th, century.

10.2.4 Post-medieval occupation

Post-medieval occupation of the castle is evidenced by the secondary stone-walled house (C) in the courtyard and various middens. The latter, present

in Areas VI and IX, are characterised by quantities of marine shells, including cockles. At least some of this material may relate to the occasional or seasonal sheltering in the ruins of groups involved in fishing or transhumance. House C betokens permanent occupation by a tenant farmer, perhaps using the ruined castle enclosure as a farmyard at some period from the 17th to the 19th century. Its walls are set over the remains of House B and House A, and its floor is represented by their truncated remains.

10.2.5 Collapse/demolition phases

It is not clear whether the exterior walls of the castle continued to serve a useful defensive function into the 16th century or whether by that date they merely provided shelter from the weather. Their downfall probably owes as much to neglect as deliberate demolition, although features such as sandstone dressings, timbers and metal fittings would have been desirable recyclable assets for use in other local building projects. ‘Tumble’ is present under the topsoil in all the excavated areas but from drawings and photographs it appears to have been mostly composed of small pieces of rock and decayed mortar, not of much use or requiring too much effort to transport away from the site. The compressed nature of the deposits in question might result from a process of demolition and robbing of larger pieces of rock, and it is probable that several different work episodes are represented, spanning a long period of time. A sledge hammer, uncatalogued but mentioned in the finds report, appears to have been part of this story.

Most evidence for the complexity of the processes of collapse and demolition is found in Area II where DJT refers to ‘upper tumble’, ‘fill of north-eastern doorway’, ‘tumble below mortar/tumble’ and ‘lower tumble’.

10.2.6 Recent times

DJT normally referred to superficial deposits in his excavations, but in all cases these appear to have been turf and topsoil that have accumulated in and over the ruins of the castle in recent times. RCAHMS (1975: 168) noted the collapse outwards of most of the south-west curtain wall sometime after about 1890, but since then there appears to

have been a period of relative structural stability, with no significant human interaction with the site other than casual visits by locals and tourists, and, notably, the excavations themselves. Some of the 19th-century ceramics recovered from the site may have been lost on picnics in the ruins.

11. ACKNOWLEDGEMENTS

Working through DJT's notes and correspondence, it has been possible to recreate a list of names of some of those who were directly or indirectly involved in the excavations and post-excavation work, but at this distance in time and without first-hand personal guidance the authors regret and apologise for the fact that there may be many others who assisted in this work in a variety of capacities but whose identities remain unknown to us and have gone unrecorded here. However, we are confident that the excavator would have wished to have recorded his thanks to the then site owner, Mr McColl, for permission to carry out the excavation, to the people of Lismore for all their help and hospitality over the years of the project, to the Society of Antiquaries of Scotland for its contribution towards the funding of the excavation and the preparation of some finished drawings, to what was then the National Museum of Antiquities of Scotland for its ready willingness to photograph, conserve and provide expert views on various categories of artefact, to the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) for suggesting Achanduin as a subject for excavation and for providing equipment and survey drawings, and to the following individuals: Marinell Ash, Janet Ashdown, David Caldwell, Geoffrey and Mary Collins, Don Cooper, Rob and Sue David, Barbara Davidson, Mr and Mrs Davis, John Dunbar, Jo Dunlapp, Margaret Eade/Saunders, Ian Fisher, Ralph Harcourt, Vanessa Harding, Jill Harvey, Judith Hawkins, Kate Holmes, Doreen Hunter, Joan and Julian Hunter, Richard Jackson-Bass, Margaret Kay, Mr and Mrs Klaus, Carol Lloyd, Nicholas and Lavinia Maclean-Bristol, Stuart Maxwell, Hugo Millar, Audrey Monk, Martin Monroe, Paul Munton, John Nevinson, Barbara Noddle, Alan and Philippa Pallister, Faith Raven, Graham

Ritchie, Murray Robertson, David Sellar, Roger Smith, Peter Spearing, David Stanbridge, Geoffrey Stell, Robert Stevenson, Bridget, Kevin and Molly Turner, Dawn, Ken, Kenneth and Wayne Turrel, Hilary Wagon, Ian Whyte, D W Williams, Paul Wilson and Beverley Woods.

In her analysis of the mammal bones Barbara Noddle acknowledged the assistance of Donald Bramwell, John Currey, Andrew Jones and Harry Kenward, while the present authors would like to record their particular thanks to Barbara Blatchford, Stuart Campbell, Gemma Cruikshanks, Penny Dransart, Iain Fraser, Veronica Fraser, George Haggarty, Derek Hall, Robert Hay, Nicholas Holmes, Jackie Moran, Nigel Ruckley, Catherine Smith and Kevin Turner. They are especially indebted to DJT's literary executor, Audrey Monk, who has been a constant source of support and encouragement and who herself wishes to thank Barbara Crawford, Simon Gilmour and Neil Guy for their advice and guidance in the early stages of this project.

Authors and publisher gratefully acknowledge the financial contributions made by the Strathmartine Trust and the Castle Studies Group towards the costs of online publication.

12. NOTES

1. For the geological background, see also Mendum et al 2009, Stephenson & Merritt 2010, and Hay 2009: 1–7.
2. See, for example, Dunbar 1981 and Caldwell & Ruckley 2005 for a general review of sources of freestone and masonry styles in the medieval West Highlands and Islands.
3. For the general historical background, see eg Duncan & Brown 1956–7, McDonald 1997, Fisher 2005 and Hay 2009.
4. The events of 1452, which DJT did not go into in detail, are described by Carmichael (Carmichael 1948: 94–5). His account of an assault on Bishop Lauder and his party on their way to a meeting which he had convened at the cathedral on Lismore in order to settle a disputed parsonage is supported by an entry in the Auchinleck Chronicle (Craigie 1923: 222), which records that, when assaulted on

29 August 1452, Lauder was indeed coming from his castle of Achanduin where he had been staying for 30 days or more. However, Carmichael's further assertion that Donald Balloch, 'Donald of the Isles', appeared in Lismore and attacked the bishop's residence where he killed many of his servants cannot be so securely authenticated. It was probably derived from a MacDonald clan history that was based on an elaboration of a passage in Lindsay of Pitscottie's *Historie and Chronicles*. What Pitscottie actually recorded (Mackay 1899–1911, **Vol I**: 124) was an episode that was undated but which could have been in 1452 when 'Donald of the Isles' did indeed chase Bishop Lauder and killed sundry of his friends and servants, but he stated that the bishop escaped by fleeing to 'a strength' which he did not name. The immediately preceding text described Donald's attack on a castle in Arran which may be reasonably identified as Brodick. Since writing this report, the authors have been made aware of a recent detailed analysis of the assault on Lauder, published by MacDonald (2010).

5. Judging from DJT's notes, he does not appear to have consulted the biographies of Alexander and John MacDougall, lords of Argyll, published in the *Oxford Dictionary of National Biography*: see Sellar 2004A and Sellar 2004C.

6. For the important role of Clann Alexandair in the MacDonald-MacDougall conflict and in the establishment of MacDonald ascendancy, see Murray 2002, an essay of which DJT was evidently unaware.

7. A term derived from wooden ship construction meaning a strong upright post resting on the keelson and supporting the deck beam, in general architectural parlance Samson post has also come to be applied to the carpentry of undercrofts supporting wooden floors.

8. A defensive earthwork at Spynie became the 'palace' of Bishop Brice of Douglas when he made the nearby church of Holy Trinity his cathedral. In 1224 the cathedral was fixed at Elgin, but Spynie remained the principal residence and a lay community grew up in its shadow. In the mid-13th century the earthwork castle was partly transformed with the addition of at least two stone buildings revealed by the excavations, one of which was probably a kitchen. The site at Spynie was abandoned for about 50 years before being rebuilt entirely in stone, commencing in the early decades of the 14th century. Other literature on early episcopal residences which DJT had evidently not consulted included Dransart & Trigg 2008, Dransart 2012, RCAHMS 2007: 161–3, and Thompson 1998.

13. REFERENCES

- Armitage, P L & Goodall, J A 1977 'Medieval Horned and Polled Sheep: The Archaeological and Iconographic Evidence', *Antiquaries Journal* 57, 75–89.
- Baart, J et al 1977 *Opravingen In Amsterdam*. Amsterdam: Fibula-Van Dishoeck.
- Bain, J (ed) 1887 *Calendar of documents relating to Scotland*, Vol III. Edinburgh: H M General Register House.
- Baker, J & Brothwell, D 1980 *Animal Diseases in Archaeology*. London: Academic Press.
- Barnetson, L 1981 'Animal Bone', in Tabraham, C J & Good, G L 'Excavations at Threave Castle', *Medieval Archaeology* 25, 131–6.
- Barrow, G W S 1988 *Robert Bruce and the Community of the Realm of Scotland*, 3rd edn. Edinburgh: Edinburgh University Press.
- Barrow G W S 1999 'The battle between John MacDougall of Lorn and Robert Bruce in 1308 or 1309', *Notes and Queries of the Society of West Highland and Island Historical Research* 2nd series 19, 3–11.
- Brown A (ed) 1999 *The Rows of Chester*. London: English Heritage.
- Brown, A L & Duncan, A A M 1957–65 'The Cathedral Church of Lismore', *Transactions of the Scottish Ecclesiological Society* 15, 41–50.
- Burgess, C, Church, M & Gilmour, S 1998 'Uig Landscape Survey Second Interim Report', unpublished report, Department of Archaeology, University of Edinburgh.
- Caldwell, D H 1971–2 'Ardrossan Castle, Ayrshire: a preliminary report', *Proc Soc Antiq Scot* 104, 201–21.
- Caldwell, D H 2014 'The Lordship of the Isles, Identity Through Materiality', in Oram 2014, 227–53.
- Caldwell, D H & Dean, V E 1992 'The pottery industry at Throsk, Stirlingshire, in the 17th and early 18th century', *Post-Medieval Archaeology* 26 (1992), 1–46.
- Caldwell, D H & Ruckley, N A 2005 'Domestic Architecture in the Lordship of the Isles', in Oram & Stell 2005, 96–121.
- Caldwell, D H, Stell, G P & Turner, D J 2015 'Excavations at Achanduin Castle, Lismore, Argyll, 1970–5: findings and commentary', *Proc Soc Antiq Scot* 145, 349–69.
- Campbell, H (ed) 1933–4 *Abstracts of the Particular and General Registers of Sasines for Argyll, Bute and Dunbarton, otherwise known as the Argyll Sasines*. Edinburgh: Brown, W.
- Carmichael, I 1948 *Lismore in Alba*. Perth: Leslie, D, for Friends of Lismore Society.
- Craigie, W A (ed) 1923 *The Asloan manuscript*, Vol I. Edinburgh: Scottish Text Society, new series.
- Dictionary of the Scots Language*, www.dsl.ac.uk sv 'Trump', accessed 3 July 2014.
- Dowden, J (Thomson, J M (ed)) 1912 *The Bishops of Scotland*. Glasgow: James MacLehose & Sons.
- Dransart, P 2012 'The origins of some bishops' residences as castles in Scotland', *Château Gaillard* 25, 39–43.
- Dransart, P & Trigg, J (eds) 2008 *The Bishop's Palace Fetternear 2005–2006*. Lampeter: Scottish Episcopal Palaces Project http://www.bishopspalace.co.uk/downloads/Fetternear_HLF_report.pdf
- Dunbar, J 1981 'The medieval architecture of the Scottish Highlands' in Maclean, L (ed) *The Middle Ages in the Highlands*, 38–70. Inverness: Inverness Field Club.
- Dunbar, J G & Duncan, A A M 1971 'Tarbert Castle: a contribution to the history of Argyll', *Scottish Historical Review* 50: 1–17.
- Duncan, A A M (ed) 1997 *John Barbour, The Bruce*. Edinburgh: Canongate Books.
- Duncan, A A M 1999 'The battles of Ben Cruachan', *Notes and Queries of the Society of West Highland and Island Historical Research* 2nd series 20, 3–20.
- Duncan, A A M & Brown, A L 1956–7 'Argyll and the Isles in the earlier Middle Ages', *Proc Soc Antiq Scot* 90, 192–220.
- Ewart, G 1985 *Cruggleton Castle: report of excavations 1978–1981*. Dumfries: Dumfriesshire and Galloway Natural History and Antiquarian Society.
- Fisher, I 2005 'The Heirs of Somerled', in Oram & Stell 2005, 84–95.
- Franklin, J & Goudall, I 2012 'The iron', in *Perth High Street Archaeological Excavations 1975–1977 The ceramics, the metalwork and the wood. Fascicule 2*, 123–88. Perth: Tayside and Fife Archaeological Committee.

- Franklin, J and Hall, D W 2012 'The pottery', in Perry, D (ed) *Excavations in Ayr, 1984–1987*: 39–69. Ayr: Ayrshire Archaeological and Natural History Society.
- Guy, N 2013–14 'Dennis Turner's Unfinished Work', *The Castle Studies Group Journal* 27, 329.
- Haggarty, G 2006 'A gazetteer and summary of French pottery imported into Scotland c1150 to c1650: a ceramic contribution to Scotland's economic history', *Tayside and Fife Archaeological Journal* 12 (on CD).
- Haggarty, G, Hall, D W & Chenery, S 2011 *Sourcing Scottish Redwares*. London: Medieval Pottery Research Group Occasional Paper No 5.
- Hall, D W 2004 'Pottery from 94–102 High Street', in Coleman, R 'Three excavations in medieval Dumbarton: 94–102 and 101–3 High Street and 75 College Street', *Proc Soc Antiq Scot* 134, 325–70, at 337–43.
- Hall, D W 2014 "Here be monstrous fabrics ...". Constructing a Research Agenda for the handmade wares of the Scottish West Coast, Highlands and Islands', *Medieval Ceramics* 34, 19–26.
- Hall, D W 2017 'The Pottery', in Ellis, C 'Monks, Priests and Farmers: A Community Research Excavation at Baliscate, Isle of Mull', *Scottish Archaeological Internet Reports* 68.
- Hall, D W & Haggarty, G 2013 'Summary report on ceramic finds from Charles Thomas's excavations at Iona Abbey 1957, 1958, 1959, 1960, 1962, 1963 and Dun Cul Bhuirg, 1959'. Unpublished report. Edinburgh: Historic Scotland.
- Hammond, J, Mason, I L & Robertson T J 1971 *Hammond's Farm Animals*. London: Arnold.
- Hardy, K & Caldwell, D H 2009 'Cave-dwelling: new evidence from the west', *History Scotland* 9/2, 14–19.
- Hay, R K M 2009 *Lismore: The Great Garden*. Edinburgh: Birlinn.
- Hewett, C A 1980 *English Historic Carpentry*. London: Phillimore.
- James, H 1998 *Gunna excavations*. Glasgow: GUARD.
- Jessop, O 1996 'A New Artefact Typology for the Study of Medieval Arrowheads', *Medieval Archaeology* 40, 192–205.
- Lewis, J & Pringle, D 2002 *Spynie Palace and the Bishops of Moray: history, architecture and archaeology*. Edinburgh: Society of Antiquaries of Scotland.
- LMMC 1967 *Medieval Catalogue London Museum*. London: HMSO (reprint of 1954 edition).
- MacDonald, I G 2010 'The Attack on Bishop George Lauder of Argyll in the Auchinleck Chronicle', *Innes Review* 61.2 (2010), 111–36.
- McDonald, R A 1997 *The Kingdom of the Isles: Scotland's western seaboard, c.1100–c.1336*. East Linton: Tuckwell Press.
- MacGibbon, D & Ross, T 1889 *The Castellated and Domestic Architecture of Scotland*, Vol III. Edinburgh: David Douglas.
- Mackay, A J G (ed) 1899–1911 *The historie and chronicles of Scotland ... written and collected by Robert Lindesay of Pitscottie*, Vols I–III. Edinburgh: Scottish Text Society.
- Macneil, I R 2006 'Kisimul Castle and the origins of Hebridean galley-castles: preliminary thoughts', in Kruse, A (ed), *Barra and Skye: Two Hebridean Perspectives*, 21–46. Edinburgh: Scottish Society for Northern Studies.
- Martin, P (ed) 2017 *Castles and Gallies: a reassessment of the historic galley-castles of the Norse-Gaelic seaways*. Laxay: Islands Book Trust.
- Mendum, J R, Park, G, Friend, C, Butler, R, Stewart, S, & Moorhouse, V (eds) 2009 *Lewisian, Torridonian and Moine Rocks of Scotland*. Peterborough: Joint Nature Conservation Committee.
- Mitchiner, M 1988 *Jetons, Medalets and Tokens*. Vol I. *The Medieval Period and Nuremberg*. London: Seaby.
- Munro, D M & Gittings, B M 2006 *Scotland: An Encyclopaedia of Places and Landscape*. Glasgow: Collins/Royal Scottish Geographical Society.
- Murray, N 2002 'A house divided against itself: a brief synopsis of the history of Clann Alexandair and the early career of "Good John of Islay" c.1290–1370', in Baoill, C Ó, & McGuire, N R (eds), *Rannsachadh Na Gaidhlig 2000: papers read at the conference "Scottish Gaelic Studies 2000", held at the University of Aberdeen*. Aberdeen (Obar Dheathain): An Clo Gaidhealach.
- NMAS [The National Museum of Antiquities of Scotland] 1979 *Brooches in Scotland*. Edinburgh: NMAS.

- Noddle, B A 1975a 'Determination of the body weight of cattle from bone measurements', in Matolcsi, J (ed) *Domestikationsforschung und Geschichte der Haustiere*, 377–89. Budapest: Akademiai Kiado.
- Noddle, B A 1975b 'A comparison of the animal bones from eight medieval sites in Southern Britain', in Clason, A T (ed) *Archaeozoological Studies*, 248–60. Amsterdam: North Holland Press.
- Noddle, B A 1978 'Some minor skeletal differences in sheep', in Brothwell, J et al (eds) *Research Problems in Zooarchaeology*, 133–41. London: Institute of Archaeology of London.
- Noddle, B A 1980 'Polycerate sheep: past history and present problems', *The Ark* 7/5, 156–65.
- Noddle, B A 1981 'A comparison of mammalian bones found in midden deposits with others from the I.A. site of Dun Buirg', in Reece, R *Excavations in Iona 1964–74*, 58–44. London: Institute of Archaeology of London.
- Oram, R D (ed) 2014 *The Lordship of the Isles*. Leiden: Brill.
- Oram, R D & Stell, G P (eds) 2005 *Lordship and Architecture in Medieval and Renaissance Scotland*. Edinburgh: John Donald.
- Paul, J B (ed) 1882 *Registrum Magni Sigilli Regum Scotorum (Register of the Great Seal of Scotland)*, Vol II (1424–1513). Edinburgh: H M General Register House.
- RCAHMS [Royal Commission on the Ancient and Historical Monuments of Scotland] 1971 *Argyll: an inventory of the monuments*, Vol I, *Kintyre*. Edinburgh: HMSO.
- RCAHMS 1975 *Argyll: an inventory of the monuments*, Vol II, *Lorn*. Edinburgh: HMSO.
- RCAHMS 1980 *Argyll: an inventory of the monuments*, Vol III, *Mull, Tiree, Coll & Northern Argyll*. Edinburgh: HMSO.
- RCAHMS 1992 *Argyll: an inventory of the monuments*, Vol VII, *Mid Argyll & Cowal, medieval & later monuments*. Edinburgh: HMSO.
- RCAHMS 2007 *In the shadow of Bennachie, a field archaeology of Donside, Aberdeenshire*. Edinburgh: RCAHMS & Society of Antiquaries of Scotland.
- RCHME [Royal Commission on Historical Monuments, England] 1925 *An inventory of the historical monuments in London*, Vol II, *West London*. London: HMSO. (Also *British History Online* <http://www.british-history.ac.uk/rchme/london/vol2/pp43-63>. Accessed 11 July 2017.)
- Renn, D 2013–14 'Dennis Turner (1932–2013)', *The Castle Studies Group Journal* 27, 337–8.
- Rixson, D 1998 *The West Highland Galley*. Edinburgh: Birlinn.
- Roy Military Survey of Scotland 1747–55. Edinburgh: National Library of Scotland at <http://maps.nls.uk/geo/roy>.
- Sadek-Kouros, H 1975 'Intentional fracturing of bone: description of criteria', in A T Clasen (ed) *Archaeozoological Studies*, 159–50. Amsterdam: North Holland Press.
- Samson, R 1982 'Finds from Urquhart Castle in the National Museum, Edinburgh', *Proc Soc Antiq Scot*, 112, 465–76.
- Sellar, W D H 1986 'MacDougall pedigrees in MS 1467', *Notes and Queries of the Society of West Highland and Island Historical Research* 29, 3–18.
- Sellar, W D H 2004A 'MacDougall, Alexander, lord of Argyll (d. 1310)', *Oxford Dictionary of National Biography*. Oxford: Oxford University Press <http://www.oxforddnb.com/view/article/49385>. Accessed 30 July 2014.
- Sellar, W D H 2004B 'MacDougall, Ewen, lord of Argyll (d. in or after 1268)', *Oxford Dictionary of National Biography*. Oxford: Oxford University Press <http://www.oxforddnb.com/view/article/49384>. Accessed 1 October 2016.
- Sellar, W D H 2004C 'MacDougall, John, lord of Argyll (d. 1316)', *Oxford Dictionary of National Biography*. Oxford: Oxford University Press <http://www.oxforddnb.com/view/article/54284>. Accessed 30 July 2014.
- Steer, K A, & Bannerman, J W M 1977 *Late Medieval Monumental Sculpture in the West Highlands*. Edinburgh: RCAHMS.
- Stell, G 1988 'By Land and Sea in Medieval and Early Modern Scotland', *Review of Scottish Culture (ROSC)* 4, 25–43.
- Stell, G 2013–14 'Dennis Turner on Coll: a personal reminiscence', *The Castle Studies Group Journal* 27, 338.
- Stephenson, D & Merritt, J 2010 *Argyll and the Islands*. Inverness: Scottish Natural Heritage.

- Thompson, M W 1998 *Medieval Bishops' Houses in England and Wales*. Aldershot: Ashgate.
- Thomson, J M (ed) 1897 *Registrum Magni Sigilli Scotorum (Register of the Great Seal of Scotland)*, Vol IX (1634–1651). Edinburgh: H M General Register House.
- Thomson, T (ed) 1819 and 1877 *The Auchinleck Chronicle, ane Schort Memoriale of the Scottis Corniklis for Addicioun*. Edinburgh: printed for private circulation.
- Turner, D J 1975 'Achanduin Castle', *Discovery and Excavation in Scotland* 1975: 9.
- Turner, D J 1998 'The bishops of Argyll and the castle of Achanduin, Lismore, 1180–1343', *Proc Soc Antiq Scot* 128, 645–52.
- Turner, D J 2016 *Achanduin Castle, Lismore: an Argyll Castle in Context*. Hambledon: Beke Publications.
- Turner, D J & Dunbar, J G 1969–70 'Breachacha Castle, Coll: excavations and field survey, 1965–8', *Proc Soc Antiq Scot* 102, 155–87.
- von den Driesch, A 1976 *A guide to the measurement of animal bones from archaeological sites*. Peabody Museum, Harvard University.
- Walker, B 2001 'The use of "skailie" in medieval and post-medieval Scotland', *Antiquity* 73/287, 163–71.
- Wheeler, A 1969 *The Fishes of the British Isles and North West Europe*. London: Macmillan.
- Yeoman, P 1996 *Medieval Scotland*. Edinburgh: Batsford & Historic Scotland.
- Ypey, J 1976 'Mondharpen', *Antiek* 12/3, 209–31.