

## Iona: some results from recent work

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### ABSTRACT

*A service trench dug to the east side of the Abbey on Iona revealed various archaeological contexts. The plaggen soil and pottery finds are assessed in detail.*

### THE EXCAVATION

#### BACKGROUND

During late February to early March 1983 an opportunity for a few days of archaeological observation, recording and limited excavation was provided by the installation of a new heating system at Iona Abbey. The plantroom for the new system had to be concealed underground and this necessitated a trench up to 4 m in depth being dug by machine to the east of the Abbey (illus 1).

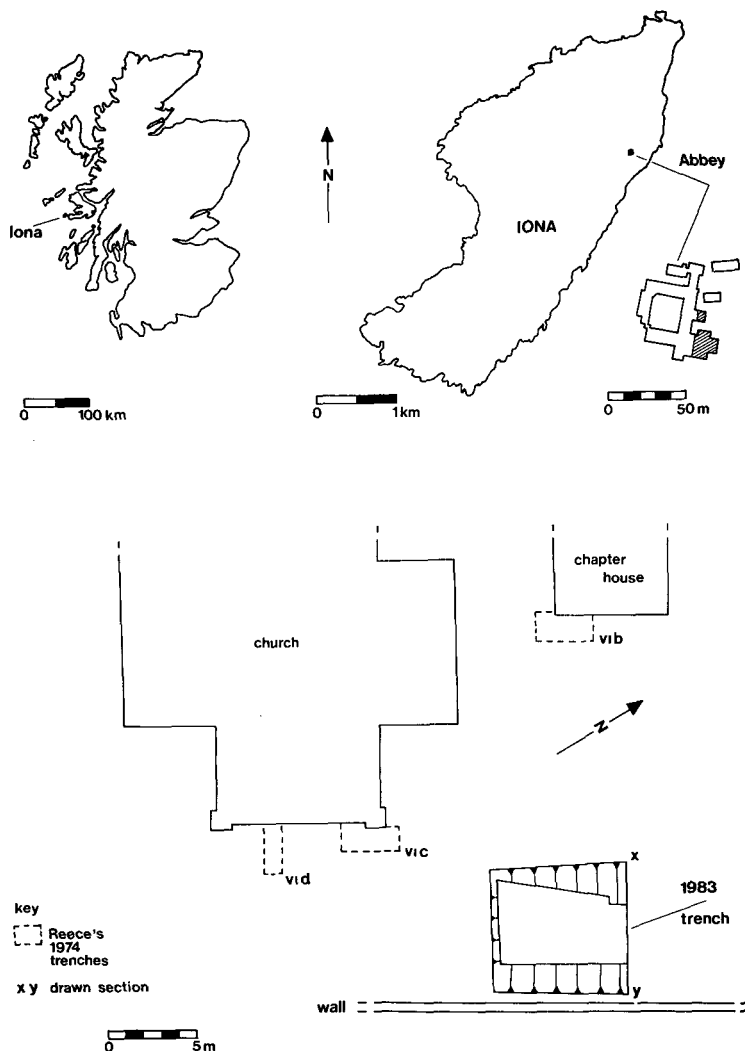
#### THE TRENCH

Beneath the turf were the remains of concrete slabs which had supported huts for the accommodation of the Iona Community volunteers who worked on the restoration of the monastic buildings from 1939. Under the modern material associated with this phase of activity came very dark grey to black sandy clay loam, F8. Reece, excavating in 1974, encountered modern road material overlying apparently similar black soil with mortar flecks in his trench VIId at the east end of the Abbey church (illus 1) (Reece 1981, 59). Barber in his 1979 excavations to the south-west of the Abbey beside the Road of the Dead also came upon a dark grey-brown soil which he described as an anthropic epipedon or introduced topsoil layer (Barber 1981, 287, 359). In both cases this material was found to seal earlier features.

The fact that the turf to the east of the Abbey was almost level with the top of the east boundary wall (illus 1) and that the ground level in the field immediately beyond the wall was more than 1 m lower would seem to show that the introduced soil was directly related to the presence of the Abbey.

A test pit dug at the north-eastern corner of the trench to check the pedological structure revealed that this introduced soil, F8, was up to 1.3 m deep. Although of interest in itself, time was short, so investigation of this layer was limited to recording and sampling for later analysis and it was removed by machine from the whole trench. A few finds were made from this layer, including pieces of flint and iron, bones from cattle, sheep or goats and deer in addition to a green-glazed rimsherd from a large storage vessel probably of 16th- to 17th-century date (G Haggarty, pers comm).

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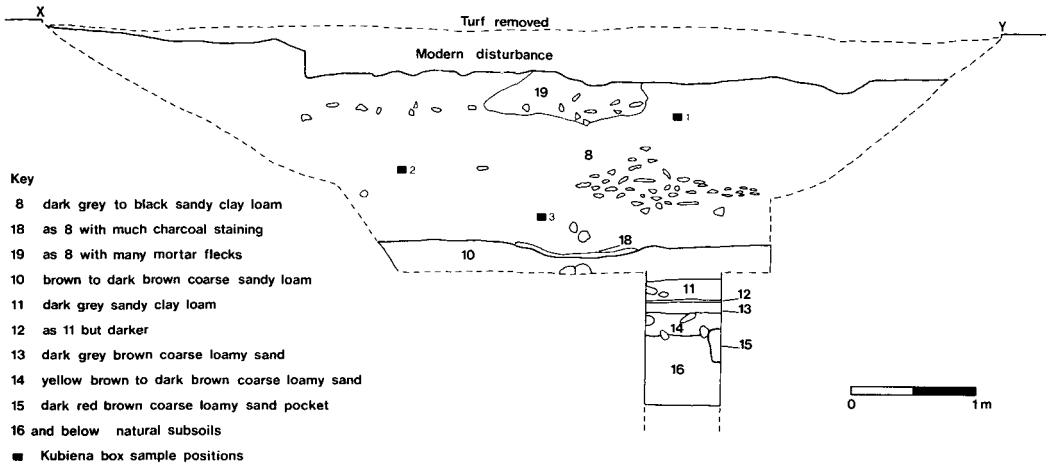
ILLUS 1 Iona: location plans

A résumé by Dr Robert Shiel of the results of analysis of thin section slides made from Kubiena box samples taken at three different depths on the north-east section face (illus 2) is given below with the full descriptive text by himself and Mr G P Askew appearing in microfiche (fiche 3: A5).

#### THE STRATIGRAPHY

Machining was stopped at the base of F8 for examination of the underlying ground surface. The trench, stripped of F8, was left with sloping sides for access and safety, so the only vertical sections for reference were at the north-east and south-west ends. Below F8 these proved to comprise completely different layers.

The surface revealed was a brown sandy loam, F10, running from the north-east section to approximately 2.5 m from the south-west section. At this point there was a change to a very dark brown clay loam, F33, with at the west corner a spread of orange peat-ash containing charcoal, F20

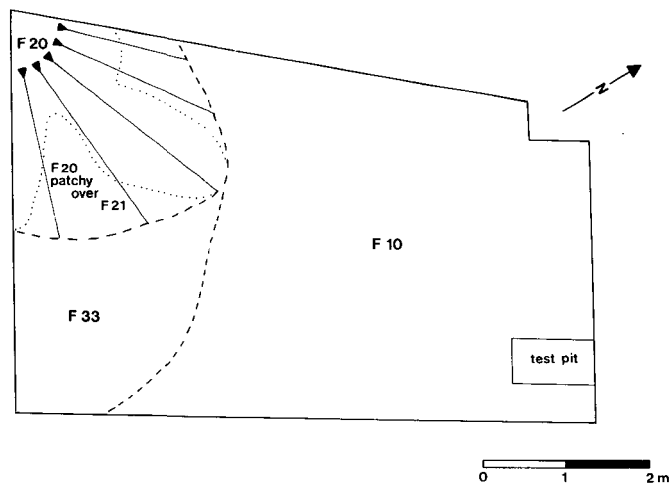


ILLUS 2 Iona 1983: north-eastern section

(illus 3). This layer sloped downwards into the trench and gave the impression of having been tipped into this position. It appeared to have been truncated at the top by a pipe trench which may have served the huts mentioned earlier. Removal of F20 revealed a brown, gritty, loam soil, F21, which also sloped downwards into the trench from the west corner.

Since F21 and F10 abutted each other it would seem that they were contemporary, with F20 later than F21 although not necessarily by very much.

Removal of a spit of F10 beginning at the north-east section revealed the stone capping of a drain which ran out from the Abbey and crossed the trench virtually parallel to, but 2 m from the north-east section. The drain, which proved to be stone-lined, had completely silted up for most of its length. Further removal of F10 towards the middle of the trench revealed an extensive spread of black soil which sloped downwards towards the drain and appeared to have been cut by it. Subsequent soil



ILLUS 3 Iona 1983: plan of features underlying the plaggen soil, F8

analyses failed to show conclusively whether the black colour came from comminuted charcoal or humic material. F10 was again picked up to the south of this black patch but the change to darker brown F33 coincided with the position of a 'wishbone'-shaped arrangement of stones, the purpose of which remains unknown.

Several other features appeared immediately below this level. A small patch of cobbles extended from the east baulk close to the south corner. A large flat granite boulder overlain by a thin lens of black, charcoal-stained soil which was in turn covered by orange peat-ash material was present in the south-west section face. Other stones were paced tightly against the large stone and it may have functioned as a hearth. The removal of F21 from the west corner revealed a patch of orange peat-ash level with the top stone of the 'wishbone' feature (illus 4).



ILLUS 4 Iona 1983: trench from north

As time ran out, effort was concentrated on recording the south-west section face. The natural sand subsoil appeared at a fairly high level in the west corner but it sloped dramatically downwards towards the south corner. The brown clayey loam soil F33, itself 40 cm deep, was underlain by a yellower, sandier soil, F34, which was up to 90 cm deep. In the south corner these two layers were separated by a wedge of gravel which may represent deliberate levelling as it formed the surface on to which the cobbles had been set.

Contexts 10, 20 and 21 all produced pottery, bone fragments and flint; F20 also contained corroded pieces of iron and a concentration of rounded white pebbles and other rounded stones, both broken and intact, not seen in any other layer. Charcoal of willow, oak and hazel collected from this context produced a radiocarbon date of  $1265 \pm 50$  bp (GU - 1984) which is discussed below.

## THE SOILS (fiche 3: A5-14)

Robert Shiel

## THE PLAGGEN LAYER (F8)

The 1.3 m-thick plaggen layer consists entirely of soil brought on to the site and lies on a made-up base. It is more similar to the 'Dark Earth' of Macphail (1981), than the deepened soils of eastern Scotland (Glentworth & Muir 1963) which have developed as artificially thickened A horizons of natural soil. In this it resembles other plaggen layers noted on Iona (Barber 1981) which have not incorporated material from the underlying natural soil. The 'natural' soil at this site is at least 50 cm beneath the base of F8. Although F20/F21 appear to form dumps of material, the soil forming F8 is level and has been placed on the site in intentionally level layers.

Samples representing three apparent layers within F8 were examined in thin section; these layers are clearly distinct but may represent only part of the variation which occurs within F8.

The lowest sample, 3 (illus 2) consists of a mixture of A and B horizons, taken from a single soil, with the latter forming 30% of the total. This layer also contains 5% reddish brown concretions which are very low in silt content and are not typical of temperate soils. These and other types of concretions occurred in all three layers, although in different proportions, and probably originated from deep weathering of pre-glacial age (Fitzpatrick 1963). The soil and concretions are more likely to have come from a soil formed on till than from the raised beach deposits in which the Abbey is sited.

The middle sample, 2, has been made up from the same soil as the lower layer but contains much less B-horizon material and in addition includes 20% of a dark brown soil A horizon which is lower in silt-size quartz grains. There are also numerous concretions which are yellow or reddish in colour and are low in silt. This layer consists therefore of at least two different soils brought on to the site, although not necessarily at the same time. Presumably the middle and lower layers together formed the whole soil for some period of time but the middle layer may have been progressively thickened. Both layers contain sand grains typical of shell sand but no shell fragments or bone, which indicates that these layers became sufficiently acid for any shell and bone fragments originally present to be lost. These changes must have occurred before the upper layer, which is rich in shell fragments, was emplaced and would have taken a substantial period (ie more than 100 years).

The upper layer, sample 1, has come from a soil A horizon similar to the main source of silt-rich topsoil in the middle and lower layers. It contains very few reddish concretions and only 1% of aggregates with a low silt-size quartz content. Thus the origin of this soil is similar to that used for the lower layers but contains much less of the material rich in concretions or low in silt. The upper layer is also relatively rich in resistant sand grains and contains much calcite (shell fragments) and bone fragments. Shell sand has been mixed uniformly through this upper layer and could be of human or natural (wind-blown) origin. The amount of resistant sand grains is not, however, large enough to indicate regular application of shell sand or a long period of exposure to acidification. The upper layer could easily have formed a garden soil which has been progressively deepened by the addition of soil and kitchen waste. The soil structure of the upper layer is typical of 'good' topsoil and indicates that the upper part of F8 was never buried deeply, nor was buried for a long period. Romans (pers comm) noted the presence of 'bright rings' in the thin-section slides and suggests that the soil had been used for grazing at some time.

In summary, the plaggen layer has been built up in at least two phases and a range of soils has been incorporated. Its proximity to the Abbey and high content of soil A horizon suggests that it probably was purposely built up but its composition is such that it could have been a landfill site used as a midden. A combination of progressive deepening by intentional introduction of potentially productive soil and spreading of kitchen waste is most likely, although there is a remarkable dearth of

pottery in F8. The presence of a small amount of charcoal throughout F8 serves to indicate its artificial nature and could represent waste kitchen ashes, manuring with wood ash, or the use of fire for clearance of vegetation.

In an area with relatively little agriculturally useful soil, such a plaggen layer constitutes an important resource. The intentional introduction of a thick layer of high quality soil such as this indicates considerable planning and organization.

### THE POTTERY (fiche 3: B1–4)

A Lane and E Campbell

This assemblage is the third group of pottery of early medieval date to be published from Iona Abbey. It is of importance because the excavation provides a stratigraphic sequence for the pottery and some of the sherds are unique in western Scotland. Forms analogous to Irish Souterrain ware can be identified among these sherds and both importation of pottery and the production of local copies postulated. Iona is the only site in Scotland with such evidence.

### THE FABRICS

The fabrics can be divided into two groups on the basis of the mineral inclusions. In the first group (Fabric 1) the sherds are heavily gritted with angular fragments of quartz, feldspar, amphibole and a bronze-coloured mica, along with rock fragments containing these minerals. This assemblage is derived from outcrops of Lewisian amphibolitic and granitic gneisses which cover most of the surface of Iona. Although such rocks are common in the northern Hebrides, it is likely that the pottery was locally produced. These inclusions can be matched in the fabric of the Iron-age pottery from Dun Cul Bhuirg on Iona which likewise seems to have been produced locally (Ritchie & Lane 1980; Topping 1986, 125–8). The lack of weathering of the fragments and the presence of large amounts of mica indicates that the tempering material was taken from deposits formed by the primary weathering of the rock outcrops or by crushing the rock. Similar types of fabrics, tempered with Lewisian gneisses and containing large amounts of mafic minerals, are commonly found in pottery assemblages from other parts of the Hebrides. Despite its 'crude' appearance this type of fabric has good thermal shock resistance properties (Rye 1976) and was probably deliberately chosen as being suitable for cooking vessels.

The bases of these locally-gritted pots show grass-marking. Two grass-marked bases were reported from Reece's excavations (Reece 1981, 50), but their fabric is different from Fabric 1 although they are probably also of local manufacture. Only one of the base sherds from Reece's excavations is similar to Fabric 1 (Lane 1981, 53, no 25) but this was too abraded to be certain whether or not it was grass-marked. However, Barber's excavation produced one grass-marked Fabric 1 base sherd (1981, fig 43, no 13.2) as well as a handful of Fabric 1 body sherds (unpublished F306, F45, F20, F8) and one fairly complete flat base in the same fabric with an eroded basal surface (1981, fig 43, no 234.1).

The second group of fabrics contains no minerals identifiable as local. Most of these sherds probably belong to one pot (Fabric 2). This pot was apparently oolitic-limestone gritted, although all the calcareous material has been leached out. It was certainly manufactured outside Scotland. Such limestone-gritting is common in pottery from the south-west of England, but other southern English and continental sources are possible on geological grounds. The other fabrics in this group (Fabrics 3, 4 and 5) contain no distinctive minerals, but the lack of locally attributable material suggests that these are also possible imports to Iona.

None of this second group can be matched with anything from previous excavations. Examin-

ation by one of us (EC) of the ceramics from the Reece and Barber excavations shows that each of the three excavations has a different assemblage of non-local handmade fabrics. Some of these fabrics are presumably of medieval date, but the variety of fabrics may reflect the widespread contacts which Iona maintained, and also could suggest different foci of activity within the monastic area at different periods.

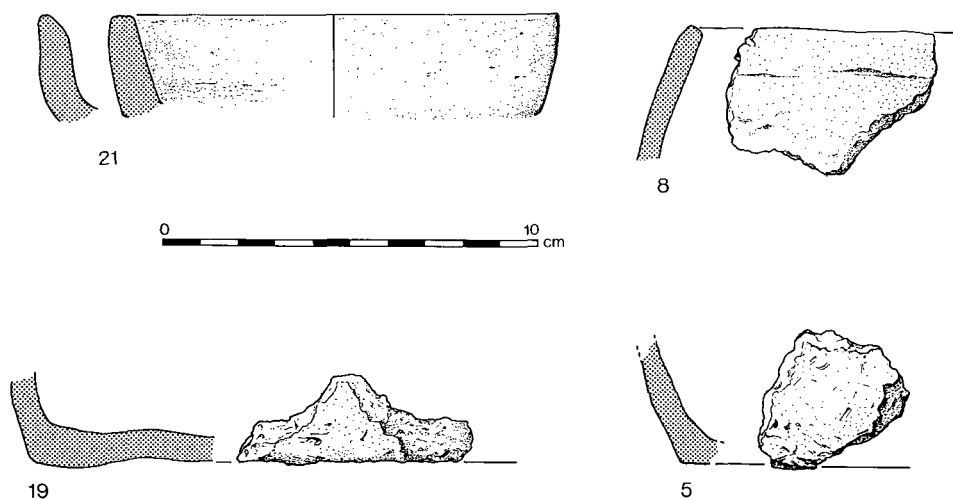
#### THE FORMS

All the sherds are listed in the catalogue by context (fiche 3: B2–4). In this section we will only comment on those sherds which are in some way diagnostic or at least suggest particular vessel forms.

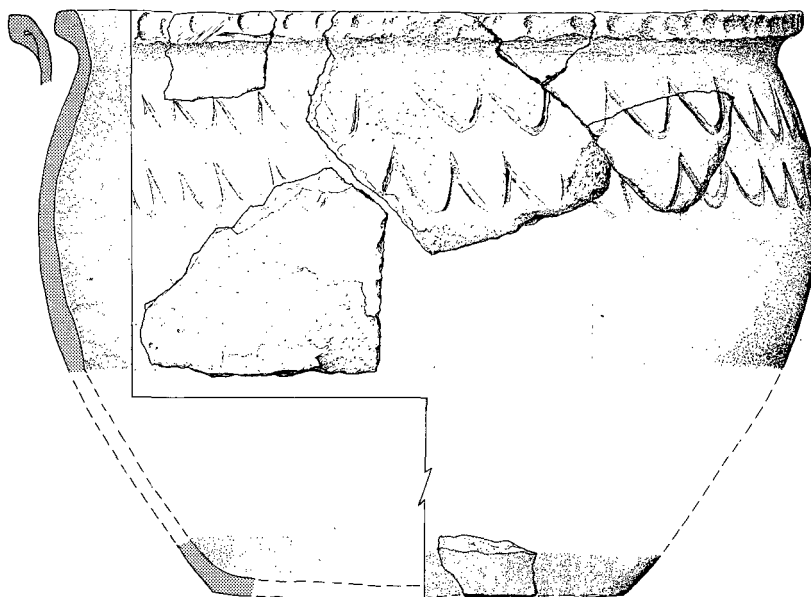
The earliest sherds are from two contexts, F21 and F10. Those from F21 (nos 21–23) indicate a small low-walled dish (illus 5, no 21). This has non-distinctive inclusions (Fabric 5) but is unlike the definite local fabrics and it may be an import to the island. It has no close parallels in Scotland other than a low-walled dish from Coll (Lane 1978, 98, fig 8, no 10) but it is loosely paralleled by a few vessels in northern Ireland among the Souterrain-ware tradition (eg Lane 1983, fig 31, no 10 from Ballykennedy Rath). Richard Warner of the Ulster Museum has suggested that the fabric of this vessel could be matched in northern Ireland.

F10 produced one base sherd (no 19) and a body-sherd in the local Fabric 1. The base (illus 5, no 19) is kinked on its lower surface. The wall rises steeply from the basal angle and then curves in. It may be from a steep-walled pot or a low dish. Although the fabric is dissimilar to Souterrain ware (pers comm R Warner) the vessel-form seems analogous to Irish material (Lane 1983, figs 31 & 32).

The second stratigraphic group (later than F21 and F10) is that from F20. It includes five sherds from one vessel of limestone-gritted ware (Fabric 2) and various sherds of other fabrics. The limestone-gritted vessel (Nos 2–4, 6 & 7) is particularly notable. It is a well-made hand-built vessel with a carefully formed finger-impressed rim and wavy incised decoration (illus 6). It may have been finished on a wheel. If the calcareous temper was in fact oolitic limestone the nearest probable source would be south-west England where the Jurassic Oolite Limestone outcrops and is common as temper in medieval pottery. Indeed the fabric did look superficially similar to some sherds from Bristol. Michael Ponsford of Bristol Museum suggested that it could be an unknown ware from the Bristol area. However, Alan Vince (*in litt*) has informed us that the vessel is sufficiently dissimilar in



ILLUS 5 Iona 1983: pottery (scale 1:2)



ILLUS 6 Iona 1983: limestone-gritted vessel (nos 2-4, 6 & 7) (scale 1:3)

form to anything in western or south-western England to be fairly certain that the vessel is not from that area. He very tentatively suggested a North German or Baltic origin. The vessel does not seem to have any parallels in the eighth/ninth-century imports at *Hamwic* (Southampton). The origin of this vessel remains unknown at present.

The same context, F20, has 12 other hand-made sherds in both the local Fabric 1 and the non-local Fabrics 3 and 4. Most of these have no diagnostic characteristics of form. The rim (no 8) in Fabric 1 is a simple form but may be from an open bowl or straight-sided vessel (illus 5, no 8). The base sherd (illus 5, no 5) is from a possible bowl form with exterior grass-marking. It is also in Fabric 1. The other sherds are not diagnostic.

The only other sherd which is from F8/10 interface is not particularly diagnostic though it is similar in fabric to the rim (no 8) in F20.

#### DISCUSSION

Although this is a small assemblage it is of some importance. The grass-marked base no 19 is from a vessel-form similar to those found in Irish Souterrain ware but its fabric indicates that it was almost certainly produced on Iona. The low-walled dish nos 21-23 is also in a form similar to Souterrain ware but its fabric suggests that it may be an import from Ireland. Such pottery has been claimed before from previous excavations at the monastery site but without any conclusive supporting evidence. Two major problems have hindered previous discussion of the pottery from Iona. Firstly many of the sherds from previous excavations were too small to allow the reconstruction of vessel forms with confidence and hence to allow any close comparison to be made with the Irish material. Secondly evidence from the northern Hebrides has shown the presence in that area of a distinct ceramic tradition of Viking-age date with features such as grass-marked bases which have sometimes been claimed to be diagnostic of Souterrain ware (Lane 1983, 249-51). The relationship of this northern ceramic style to Irish Souterrain ware is by no means clear but its presence is enough to undermine the simple attribution of all grass-marked pottery to a Dark-age Irish cultural milieu.



However, the combination of fabric and form in the present assemblage seems to provide conclusive evidence of Irish influence. Re-examination of the assemblages from the Reece and Barber excavations confirms the point. The two grass-marked base sherds from Reece's excavations are in a local fabric and the form indicated by one of these could be from Souterrain ware (Reece 1981, fig iii, 1b no 3). The other sherds are not from sufficiently distinctive forms to allow a firm identification. The Barber excavation produced one grass-marked base sherd from a steep-walled vessel (Barber 1981, fig 43, no 13.2) and 12 sherds from another steep-walled vessel with an eroded basal surface (*ibid*, 43, no 234.1). These are all in locally tempered fabrics. One rimsherd from a straight-sided or slightly inturred vessel has slashing on the rim-top (this is in an undiagnostic fabric) (*ibid*, 43, no 292.1). Seventeen sherds come from a vessel with incurving walls decorated with an applied cordon and with fingermarks on the rim-top (*ibid*, 43, no 234.2 & 3). This seems to be an import to the site as its inclusions of Dalradian rocks indicate a source in northern Ireland or in Argyll south of the Firth of Lorne. All of these sherds from Barber's excavation show Souterrain-ware characteristics and the cordoned bowl in particular is very reminiscent of the Irish assemblages, although its use of grass-tempering is not an Irish feature. It is the only decorated vessel of this type recognized so far in Scotland. The importation of small quantities of Souterrain ware to Iona and the local production of similar pottery seems clear from this range of evidence.

The date of the pottery is of some interest. The radiocarbon date from layer 20 calibrates at 2 sigma (95% confidence level) to AD 660–890 (using Stuiver & Pearson 1986). At 3 sigma (99% confidence level) it is AD 640–940. Although the charcoal could be redeposited from earlier activity, the date indicated is most likely to be in the seventh to ninth centuries and almost certainly pre-1000. Charcoal from Reece's trench VIb, about 15 m to the north-west (Reece 1981, 106) gave a very similar date. A date in the period pre-1000 is of interest in relation to the limestone-tempered vessel as no other ceramic imports have been recognized in Scotland after the *floruit* of E Ware in the seventh century. Although the origin of the vessel is unknown it does not seem likely that pottery of this form was made anywhere in the British Isles in the pre-Norman period. It is perhaps worth noting in this context the handle with stamped and applied strip decoration from Barber's excavation (Barber 1981, fig 43, no 320.1). No parallels for this piece have been found despite extensive enquiries amongst British and Low Countries pottery specialists. It is possible that both of these ceramic finds indicate Baltic or Scandinavian contacts with Iona in the Viking Age. Finds of grave slabs and the 10th-century coin hoard show activity on Iona in the ninth and 10th centuries (RCAMS 1982, 21).

A date pre-AD 1000 would be quite acceptable for the other sherds from contexts 21, 10 and 20, though a date as early as the seventh century might be unexpected. The date of Irish Souterrain ware is loosely bracketed as eighth to 12th century by Warner (1980, 122), though earlier dates have been proposed in the past (Ryan 1973). Grass-marked pottery in the northern Hebrides appears to be a Viking-Age phenomenon (Lane 1983, 295–362) but it would not be surprising if the monastery at Iona had received imports of Souterrain ware or if copies were being made locally as soon as such pottery was being produced in northern Ireland. Barber's excavations did not recover any pottery from the early phases of activity which he investigated and the early monastery may have relied on wooden vessels (Barber 1981, 364), and on wheel-made imported pottery from France (E Ware) and the Mediterranean (African Red Slipware) (Reece 1981, 19–22). If the monastery at Iona was receiving Souterrain ware and if it was being manufactured locally this is of some importance. No other such finds have been made elsewhere in Scotland.

Although the pottery assemblage is small and fragmentary it provides important indications of the long distance contacts of the monastery. Examination of the three assemblages seems to indicate significant spatial variation in the discovery of particular fabrics though further petrological work is

required on all the pottery to verify the significance of this. The excavation of further such stratified and independently dated pottery is required before the question of the relationship between the Iona pottery and the Viking-Age ceramics from the northern Hebrides (Lane 1983) can be usefully explored.

### GENERAL DISCUSSION

As we have seen, the plaggen soil has a complex history and is therefore not closely datable. There are now two instances where it has been found to effectively mask the ground surface contemporary with the construction of the Benedictine Abbey. In addition to the 1983 evidence of the drain cut through F10, Reece's trench VI d shows the bedding trench for the foundations of the east wall of the extended church (Reece 1981, 58–59), probably dating to the first quarter of the 13th century AD (RCAMS 1982, 52), cut through brown sandy soil which directly underlies the black soil with mortar flecks. He believed some of this black soil to have been associated with this building phase as it seemed to have been used to cover the rough foundations between the top of the bedding trench and the coursed masonry of the wall proper. Such a date for the first appearance of the plaggen soil is not inconsistent with Barber's findings to the south-west where a post 11th-century AD date was thought likely (Barber 1981, 358–9).

The 1983 trench gave a tantalizing glimpse of the plethora of largely unexplained pre-Benedictine contexts previously noted in Reece's trenches VI b, d and e (Reece 1981, 55–62). Although there was little time to examine many of these in detail, some complexity in land-use history has been indicated by subsequent analyses of soil samples. Layers 33 and 34, which have both in the past formed the topsoil on the site and which were separated by an introduced gravel layer, have shown that they received considerable inputs of organic matter, equalling or exceeding that found in samples of the plaggen soil. The amount of organic matter is thought to be consistent with prolonged or dense vegetation cover. Phosphate levels, however, were found to be markedly different in samples of F33 and F34. The amount of phosphate in F33 equalled that of the plaggen soil and is consistent with the addition of manure but F34 must have received little or none.

The interpretation of F21 as dumped domestic midden material is backed up by soil tests which have shown phosphate levels equal to and organic matter input greatly in excess of the plaggen soil. Samples of F20, comprising mainly peat ash, could not be subjected to the same analyses but there seems no reason to assume that it was anything other than a further dump of midden material. Although it is unwise to place too much reliance on the single radiocarbon date from F20, when calibrated at 3 sigma to AD 640–940 and taken together with the pottery evidence, it may perhaps be suggested that the pre-Benedictine finds from the 1983 excavation can be added to the evidence of the carved gravestones and crosses on the island to indicate occupation of the site after the removal of the main Columban community to Kells early in the ninth century AD (RCAMS 1982, 19 & 48).

### LOCATION OF ARCHIVE

All the information gained from the trench has been deposited in the National Monuments Record of Scotland.

### ACKNOWLEDGEMENTS

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Finally, I should like to mention the Iona Community members and the masons working at the Abbey who showed such interest in our work.

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