

4.3 PROJECT DESIGN

4.3.1 DESIGNS for FIELDWORK (1995, 1999, 2000, 2001)

1995 [5.1, *Bulletin* No. 1] Evaluation and Project Design

The evaluation programme included: Trial excavation by J Harden (Int 1); Magnetometer survey 1994 (Int 2), Resistivity Survey 1994 (Int 3), Contour surveys 1994 (Int 4- 5), Map of churchyard (Int 6), Trial excavation in the south field (Int 7), Trial excavation in the Glebe Field (Int 8), Radar survey (Int 9), Trial excavation in the west field (Int 10), Horizon mapping in the south field (Int 11), Topsoil recording in the south field (Int 12), Clearance of the Crypt (Int 13).

Contents of the Project Design

<http://www.york.ac.uk/archaeology/staff/sites/tarbat/bulletins/bulletin1/contents.html>

Bulletin 1, 1995 [Initial Project Design]

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1999 Report and revised Strategy at end of season 1999.

1. Current Model.

*There are ard-marks cut by the enclosure ditch, and there are ephemeral structures in Sector 1, shallow sub-rectangular ditches (eg S2) which are potentially early.

*But S2 cuts S1, the bag-shaped building thought to be Pictish. And although the enclosure ditch is dated 2-6thc by C14, it may be later. At the end of the 1999 season, we still have no certain assemblages of prehistoric date, and now have to accept this as significant.

*There are other reasons for throwing doubt on the early part of our expected sequence. The early strata beneath the stone buildings on Int 14 has been re-interpreted as a sequence of natural deposits: a silver-grey degenerate humic sand lies over 1 metre of sand on a bed of marine clay. There is a gravel cap on the hill that carries the church. There may be a paleosol but it is local in an erosion hollow filled with sands of early Holocene date in the area of the oil storage tank (Stephen Carter, visit and report 23 Aug 99). The long sequence expected in Int 14 has therefore shortened to a stratified deposit c250-300 mm deep.

*The stone buildings on Int 14 are cut into subsoil and no earlier system has been yet seen. The stone buildings are therefore likely to represent the primary development of the site. These buildings are constructed in rubble bonded with clay and roofed with stone tiles. Pebble surfaces are used for hard standing. Activity on Int 14 is dated to the 8th century and later on the evidence of artefacts.

* Jill Harden's C14 dates for the enclosure ditch (centering on 2nd, 4th and 6th century AD, Int 1), which have been accepted as giving a start date for the settlement in the late Iron Age/early Pictish period, now appear anomalous. It was always odd that, although apparently from the same fill, these dates were widely spread. The explanation might be that the samples were in fact redeposited peat, cut for fuel or building, which could thus have formed 2-300 years earlier. This would explain their date-range as well as the fact that they are too early for the artefact assemblage. Jill Harden (pers. comm. 27 Aug) confirmed that the samples were peaty and from the same context. The banded character of the ditch section also implies that this was not peat formed *in situ*.

* All this currently implies that the earliest occupation at the Tarbat site is 8th century AD, and there was no prehistoric or early Pictish phase of any substance. Some activity earlier than the 8th century is obviously possible, but we have no reason, at present, to plan for it.

If this is correct the most likely scheme for the short chronology would be:

Period 1, 8th to 9th or 11th century. A settlement is founded at Portmahomack in the 8th century. It has stone buildings, a stone church, produces sculpture and is most probably to be identified as a Pictish monastery. The church is on the hill, the residence is on the slope, and a farm is on the flat in the south field. The farm grows grain (querns), and has cattle (bones). There is extensive water management. One or more ditches collect water off the slope. A stream runs through the enclosure so formed, perhaps to drive a mill. We could perhaps anticipate that there will be two main phases in this period. In the first, represented by the grave-markers, the establishment is a monastery in the

sense of a religious community. In the second, represented by the large memorial, TR20, it has become a secular (manorial) centre, matched by others at Hilton, Nigg, and Shandwick.

Period 2, 9th or 11th to 12th c: These buildings were burnt down, sculpture was broken up and a second settlement was founded on the ruins of the first. Its buildings were constructed with upright timber posts. Much broken-up sculpture was deposited as hard core. Metal-working (iron and bronze) commenced or continued. The putative mill area now becomes a pile of trodden stone, perhaps to serve a water-hole, or may have continued as a mill. The monastery church is replaced by an E-W church with a small square-ended chancel, perhaps in the context of David I's reforms (early 12th c). The ditches in the south field are back-filled and levelled. The settlement next to the church with its post-hole buildings and metal-working is presumably intended to serve a new manorial type of establishment.

Period 3, 12-15th c: The area remains an artisanal zone with metal-working and shell-middens. The church continues to develop. The south field is cultivated by rig and furrow.

The end of Period 1: The question of the transition from Period 1 to Period 2 and whether there is a hiatus between them is crucial. Period 1 can divide into two sub-periods on the basis of the sculpture: an early 8th century devotional phase and a late 8th century lordship phase, but there is no necessity to argue that it lasts longer than a century. There are pins, combs etc dated to 9-11th century from parallels from Orkney. If these are in primary contexts in the post-hole phase, then the monastic phase lasts only until the 9th century, when it is presumably terminated by the Vikings. If they belong to the monastic phase and have been found in residual contexts, then the monastic phase lasted until the 11th century. The monastery would then burn down in the context of the conflict between the Earls of Orkney and the men of Moray, culminating in the Battle of Tarbat Ness (1035). The presence of metal-working in all periods is in favour of continuity between them.

2. Research Questions and rewards.

The general target now becomes: *A Pictish Monastery and its farm.*

We need:

*The contrast between the official centre (Northumbrian/Roman, Sector 2) and its farm (indigenous, Sector 1). Dates from primary contexts are needed to show that the two different settlements are in fact contemporary. There may be very little artefact sharing, because the monastic part is innovative and intrusive and the indigenous part is traditional.

*Structural details of the buildings (residences and barns). We are looking for much stronger evidence for turf or clay construction.

* Which period does the ard-cultivation belong to? Can we date it independently of the ditch?

*The water-management system. Is there a mill? If so, did it remain in use over the period of social transition?

*Tight dates for beginning and end of monastery

*Tighter sequencing and dating for the end-game, 9-15th c.

* Is there any sign of settlement before the 8th century? What was the topography and vegetation at that time? Was it a 'desert place' in the monastic tradition? If there is nothing under Int 14, where were the prehistoric settlements to be found?

3. *Management Targets.*

On Sector 2, the presence of stone buildings, perhaps well preserved, suggests the possibility of presenting a monument adjacent to the churchyard. There is also potential for reconstruction (stone footings and stone tiles). These buildings will not survive further ploughing or the making of a car-park. This land (ie north end of Sector 2) really needs to become a monument in care.

On Sector 1 there is no call for presentation and the surviving remains are not vulnerable. This land could be returned to farming.

4. *Revised Project Design and Programme 1999.*

4.1 *1999 PX programme*

*Complete *Bulletin 4* and send out.[AR]

*Complete web-site reporting system and interlink with Tarbat web-site [AR]

*Complete recording and conservation of finds to go on display and hand-over in exchange for a receipt to Alison Sheridan at NMS on or before 15 Sep [CS]

*Assemble and evaluate speculative C14 samples from Structure 1 (Int 11), Structure 6 (Int 25), Ditch F158 (Int 11), Oven F18 (Int 11), paleosoil (Int 26), burning (Int 26), charcoal associated with the broken monument (Int 14), and cist burial (Int 17). These 8 dates to be determined, using sub-samples only, by C14 (Belfast) or AMS (Oxford), with the objective of locating any pre-8th century contexts that would affect the strategy for 2000. Submission and counting to begin by 1 October at the latest. Payment from px budget. [JGL]

*Create revised plan of Sector 1 [AR]

*Create a schematic section N-S along Int14/24 showing the most recent interpretation of the deposit [JGL]

*Plan of Int 14/24, showing likely lines of buildings and the point distribution [JGL]

*Draw all sculpture [Trevor Pearson]

*Research monasteries [MOHC]

* Give booked lectures in Edinburgh, Aberdeen, Pictavia, Kilmartin, Iona, Kalamazoo, US tour, Leeds, York [MOHC]

*Make up-to-date inventory of all new EM artefacts, research and declare to TT panel.[CS]

4.2 *Year 2000 Field Season.*

Dates: 12 June - 1 Sep [12 weeks] plus contingency weeks 4-15 Sep
Field Schools [1] 3 Jul-21 Jul [2] 24 Jul-11 Aug.
JGL on site 12 Jun-15 Sep with holiday 7-18 Aug
Roy and Faith break for a week late July [or whole site breaks, say, 13-18 Aug]
MOHC on site 3 Aug - 16 Sep
AR on site 3 Jul-12 Aug

Objectives: Area A [Int 14] excavate at level D at least to latest Period 1 phase [ST]
Area A [Int 24] excavate with volunteer labour at least until the stone structures are reasonably clear. [LS]
Area B [Int 25] map [AR and Field Schools]
Area C [Sector 2] excavate strip of modules running N-S at level B/C to subsoil [MC/TS?]
Area D [Sector 2] map if time following Int 25.

Publicity: Well organised site tours with paid guide on site presentation of finds; VIP invitations; *Current Archaeology*, *Times*, *Sunday Times* articles. Continue to seek professional film-maker, but have amateur on site anyway. Erect proper signage to excavation.

4.3 Design and Programme Decisions to be made at the end of the 2000 season

* *Project Tarbat 2000* (1): Int 14: The monastic buildings: conservation, preservation, reconstruction and investigation. The reconstructed building, probably S4, would stand to the north of an access path running across the present site to the churchyard gate. The conserved and presented buildings and other features would lie to the south. Investigations of pre-monastic period to be packaged with the programme of consolidation and presentation, which underpins the continued funding.

* *Project Tarbat 2000* (2): Int 24: If justified, scientific programme of investigation of water management system, funded through archaeological science agencies.

* *Project Tarbat 2000* (3): Sector 1/2: Investigation of the farm. Targeting: south end of Sector 2 [D]; Area of Structure 1 [E]; the ditch intersect [F] Structure 6 [G]. Partly funded by at least 5 years of Field Schools.

4.4 *Implications for the Display*

The display is locked into the 1998 interpretation of the site and about to go into production. However, it can be brought up to date, or at least made less wrong, by means of minimal corrections to the Treasury, and Time-Line texts. In general the amendments required are to refer to the enclosure ditch and Structure 1 as Pictish rather than Iron Age, Structure 4 as Pictish or Early Medieval rather than Norse, and Church 1 as 8th century rather than 9th century. The Archaeology Pit needs refurbishing in any case to make it more friendly to the public. These amendments were drafted and sent on 27 Aug and subsequently accepted by Fran, George and Ellen.

MOHC
1 Sep 99

2000

THT Meeting 19 October

Research Director's Report

1. *Research update*

We have radio-carbon dates of c570 cal for the earliest burial, of 635 for the vallum and 935 for a corn drier. Irish linguists propose that Portmahomack means Port of Columba. The current model allows a Columban foundation with church, grave-markers, workshops and farm beginning in the 6th century, influenced by Northumbria in early 8th c, developing in late 8th century with mill and large sculptural monuments, probably invested from south Pictland, destruction of monastery but continuation of farm from 9th c, land clearance and redevelopment in 11/12thc. Main problem still the date of the black layer which terminates the main workshop sequence and thus the monastery. Will be addressed by sieving the black layer for insects, seeds etc and submission of this to get one or more revised c14 dates.

2. *Completion of Fieldwork programme at Portmahomack*

Objectives:

- * Completion of workshop sequence in Sector 2
- * Excavation of Structure 1 and adjacent features in Sector 1

We need *permission to excavate* from the Trust.

We will need about *three seasons of 8 weeks*. The first will run from 2 July to 225 August with the end-of-dig talk on 25 Aug.

We will need to raise about ,30K per year.

We expect to receive about,10K pa as a result of our partnership with NMS. This will be paid direct to the University as a research grant.

We anticipate (after the bills are in) having resources unexpended from 2000 (worth an expected ,10K or so), which we will apply in 2001.

We can see about 20K worth of work on site in 2001. We will be approaching other research grant-givers for the balance, for example: NERC, AHRB, SAS, Esmee Fairbairn.

We undertake to inform THT about which sponsors we are approaching to avoid duplication..

We should be most grateful for any research grants additional to budget from the Tarbat Historic Trust, but do not expect it.

3. *Additional Fieldwork in the region.*

The current interpretation has made survey work in the area even more important if we are to understand the context of our site. We intend to conduct surveys (NB NOT area excavation) at Nigg, Shandwick and Hilton (upper). We have yet to seek permission or funding. Funds administered through THT will not be used for this work since they are dedicated to excavation at Portmahomack. Additional funds will be raised from elsewhere. However if THT wish to contribute to this part of the research programme, any help would be gratefully received.

The overall research programme will continue to be called the Tarbat Discovery Programme.

4. *Display.*

*We would like to ask for a major review of the display when fieldwork is finished in 2003, and to avoid tinkering before then.

*In 2003, we should consider dedicating the Treasury to sculpture and the south side of the nave to a display of the early monastery.

* We would like to deliver c40 boxes of human bone for safe storage in the church next summer.

MOHC 19 OCT 00

2001 Report to Research Advisory Group 27 August 2001.

1. *Excavation Programme.*

The planned excavation area has now been completely mapped [see plan]. It shows a settlement which is divided into four main areas:

- (1) The *church and cemetery*, under the present church
- (2) The *workshop area*, about 40x20m in the north part of sector 2
- (3) The *mill area*, about 20x20m in the centre of Sector 2
- (4) The *farm area*, Sector 1 (140x40m in all)

The next stage is to study and understand the structures and the sequence in the latter three areas. In the summer of 2001 we have two site studies in progress;

In *Sector 2 (workshops)*, two workshop-areas are under investigation, lying east and west of the road. The western workshop consists of a series of layers of brown sand sandwiched by layers of clean white sand. It has a central hearth and a water-channel. This area produced craft material (leather-working, wood-working) of the (?) 8th century. The eastern workshop has a covered water-channel and was the likely source of metal-working debris thrown over the terrace wall. (the broken sculpture lay here).

In *Sector 1 (Farm)*, the large bag-shaped building S1 is being excavated, and we are currently removing a large number of later features. Activity here ranges from the dumping of waste from a glass workshop in the 9/10th century, to a wandering ditch dug during the Middle Ages probably to drain wet patches from what were then fields. The big building is later than the inner enclosure ditch and may be earlier than the outer enclosure ditch (there by the 8th century see below).

2. *Analysis and Interpretation.*

Radiocarbon dates. Preliminary programme has produced the following:

Oxford University radiocarbon accelerator unit

OxA-9662. Charcoal from the ultimate backfilling of an inner enclosure ditch in Sector 1 (Int 11/F18/1143)----- 890 (68.2%) 985 AD Early 10th century.

OxA- 10159. Wooden stake in situ in the side of the outer enclosure ditch in Sector 1. (Int 11/F158/1490)-----690 (68.2%) 780 AD. Early 8th century

OxA 9699. Skeleton from one of the earliest long cist graves in the church (Int 20/F152/1373)
-----535 (65.8%) 605 AD. Late 6th century

OxA-9664. Burnt wood from destruction layer over workshops. (Int 26/1030)
-----400 (68.2%) 540 AD. Late 5th century.

Scottish Universities Research and Reactor Centre

GU-9298. Skeleton with head wound from cemetery in the church. (Int 20/F93/1222).
-----1189 (1 sigma) 1258 AD. Early 13th century

GU 9296. Skeleton with head wound from cemetery in the church. (Int 20/F138/1238)
-----733 (1 sigma) 886 AD . 8/9th century

GU 9297. Skeleton with head wound from cemetery in the church. (Int 20/F132/1307)
-----890 (1 sigma) 981 AD. 9/10th century

Preliminary assessment.

These results seem to justify an assumption that the site as whole will be found to begin in the later 6th century. (The 5th century date probably refers to heart-wood from the original timber buildings, burnt down in the 9th century or later. This layer will be re-dated using sieved organic debris.) The outer ditch was in use by the early 8th century. An inner ditch, which may have been earlier, was still visible as a shallow depression which acquired glass debris and charcoal with a C14 date in the early 10th century.

Finds analysis by Cecily Spall (see *Bull* 6) has shown that the activities in the workshops are likely to have included the making of jewelled liturgical vessels and manuscripts.

Interpretation

The dates, and the assemblage of sculpture and workshop-debris makes the interpretation of the Portmahomack site as a monastery very plausible. It may well have begun at the time of S Columba's mission and continued up to the time of the Battle of Tarbat Ness in c1035.

In addition, the similarity of the stone monuments at Portmahomack, Nigg, Shandwick and Hilton of Cadboll suggest an integrated community around 800. This integration could also have been true of earlier periods, suggesting that the 6th century community originally acquired the whole Tarbat peninsula. Thus the idea I am currently promoting of ‘the Iona of the east’.

At least three phases of monastery are now likely at Tarbat:

(1) The foundation of a Columban monastery in the mid-6th century. Apart from the cist-burial we have not seen this yet. It should lie under everything else and consist of timber buildings with numerous post-holes (cf Adomnan’s *Life of Columba* and Barber’s excavations on Iona). The simple grave markers and the inner enclosure ditch may belong to this period.

(2) Alignment with Northumbria in the 8th century. This should be the context of the stone buildings and the craft activities (as it is at Whithorn). The architectural sculpture and the sarcophagus (‘boar stone’), and the outer enclosure ditch may belong to this period.

(3) A new establishment of the 9-10th century. The period of the great cross-slabs and new intense workshop activity. The influence of the Norse is likely but as yet unknown. The bag-shaped building and the mill may belong to this period.

3. *The Future*

The definition of these three phases will be of immense historical value if we can refine them and can bring them to life. We should also recognise that we have been lucky enough to hit the jackpot, so far as early medieval Scotland is concerned, and so bear a huge responsibility for a secure and sensible outcome.

The main tasks which remain, and their likely time span, are as follows:

* *The Workshop area.* The excavation is very difficult and very slow. It is not suitable for volunteers, and one cannot go any faster by using more people. The layers are very thin and contain very small fragments of debris. We are also sampling on a tight grid (100mm) to see if we can understand how the layers arrived, whether they are indoors or outdoors and how the crafts are zoned (if they are). Underneath this area may lie the timber buildings of the earliest phase. At the south end of the workshop area, the strata lies 500mm deep. Our present estimate is that this deposit will take 6 experienced diggers 18 months to complete. It would have to be dug totally.

* *The Mill area.* The task here is to defined the mill structures and date them. This is unlikely to require total excavation. Our current estimate is that a combination of four experienced excavators and some light machinery could complete a study of the mill system in 3 months.

* *The Farm area.* The tasks here are (1) To excavate the big building S1 (2) To date the inner enclosure ditch (3) To define the glass working industry and (4) To establish the sequence of entrances at the SE corner. Our estimate is that this could be done by four experienced excavators and 15 students/volunteers over 4 months.

3. *Programme*

The character of the strata, particularly in the workshop area, does not give us a great deal of room for manoeuvre. It must be dug on a large scale, or the buildings cannot be seen; and it has to be dug slowly, because the assemblage consists of tiny fragments. We are also applying chemical mapping to try and understand the zonation of crafts and the way the layers have formed.

The present plan is to finish Sector 1 (the Farm) in 2001 and 2002. In 2002 we could also aim to Ado@ the Mill.

That leaves the workshop area, which it is hard to see finishing in under 18 months, or 6x3 month seasons.

Here is the current thinking:

2002: The large team (including a Field School) concentrates on finishing the Farm and Mill.

2003-8: A small expert team excavates the workshop area for 3 months a year. This would become a 'Display Dig' which could provide a positive input to the marketing of the Centre. Some consideration might be made towards raising funds for the construction of a scaffolding shelter and walkway, to allow visitor access and to avoid any lost time through weather. A shelter is a nuisance for photographic recording and surveying, but it would improve the visitor experience.

The costs could be higher than the current budget (which envisages completion in three seasons from now) but would be spread out over a longer period. This scheme might also be easier to incorporate into a display strategy.

4. *The Tarbat Peninsula.*

Understanding Nigg, Shandwick and Hilton of Cadboll has always been an integral part of the research programme and has become more relevant the better we have come to know Potmahomack.

A programme of evaluation was undertaken at St Mary's Chapel, Hilton of Cadboll (for Tain and Easter Ross Civic Trust, 1998) and could be worked up into a project design for that site. But a survey at Cadboll Farm (old Hilton area) might be the next priority.

Surveys at Nigg and Shandwick (for their Trusts) are in the planning stage.

I am applying for the separate small-scale funds needed to support any work at these or other sites on the Tarbat peninsula. If successful, these might provide other opportunities for the contribution of the Field School.

5. Publication.

The new scheme will need a careful revision of the analysis budget and the publication scheme. In general the time scale might be:

By 2003: The Church excavation and the sculpture ready for the press (Main authors: MC, Annette Roe, Sarah King, Kellie Meyer). Principal analyses outstanding: the 3-d digital modelling of the church sequence and the reconstruction of the Tarbat monuments.

By 2005: The Mill area ready for the press. (Main authors: MC, Justin G-L, Stephen Carter) Principal analysis required: organic material from the mill pond.

By 2007: The Farm area ready for the press. (Main authors: MC, Justin G-L, Cecily Spall, Stephen Carter). Principal analysis required: animal bone, grain, plants from the ditch.

By 2011: The workshops ready for the press (Main authors: MC, J G-L, CS, Andy Heald). Principal analyses required: stratigraphy, metal-working, glass-working, leather-working, wood-working.

Interim Reporting:

* I will continue to publish interim accounts in journals, conference papers and popular outlets. I currently do about 10 public lectures a year, 1 or more of which is subsequently published.

* Bulletins will go on being issued annually on the web-site:
www.york.ac.uk/depts/arch/staff/sites/tarbat/

Display.

The archaeological team feels that the display to the public is a vital part of the publication programme. I am currently developing plans for:

- * A revised display in the church, highlighting the monastery
- * Consolidation of monastic buildings in the workshop area

* A special new building dedicated to explaining and demonstrating the monastic arts and selling replicated products.

* A full-scale reconstruction of the big building and the monastic vallum.

* Schemes which link Portmahomack with other sites on the Tarbat peninsula (Nigg, Shandwick and Hilton) and with other sites in early Christian Scotland (Iona, Whithorn, Isle of May).

Martin Carver
27 August 2001