

# What's cooking? New radiocarbon dates from the earliest phases of the Perth High Street excavations and the question of Perth's early medieval origin

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## ABSTRACT

*The results of recent Historic Scotland-sponsored radiocarbon dating of residues on Shelly Ware pottery from the earliest phases of the mid-1970s Perth High Street excavations are discussed below. The dating suggests settlement activity in the late tenth to early 11th century. The two key strands of the discussion are the exploration of early medieval Perth and its environs and the need to re-evaluate the earliest phasing of the Perth High Street excavation.*

## PERTH: FROM CULT CENTRE (?) TO TOWN

There is a still popular view (though not held in many academic circles) that Scottish medieval urbanism is the story of burghs, principally royal burghs, founded from the 12th century onwards. This view would describe Perth as the burgh of King David I (AD 1124–53), *c* AD 1128–30. The earliest reference to the burgh appears in his charters granting property in the burgh to Dunfermline Abbey: in AD 1128 the parish church and a toft, in AD 1150 a confirmation of these along with the chapel in the castle (Barrow 1999, nos 33 & 172). The first known charter of privileges granted to the town – though oddly neither the burgh nor the burgesses are specifically mentioned (A Duncan, pers comm) – was that of King William I (RRS I, no 467; Simpson 1972, 8). This understanding is based on a perceived primacy of the documentary record of events and, strictly speaking, is correct if we follow the legal definition of a burgh. It is

a distinction Duncan has been careful to remind us of:

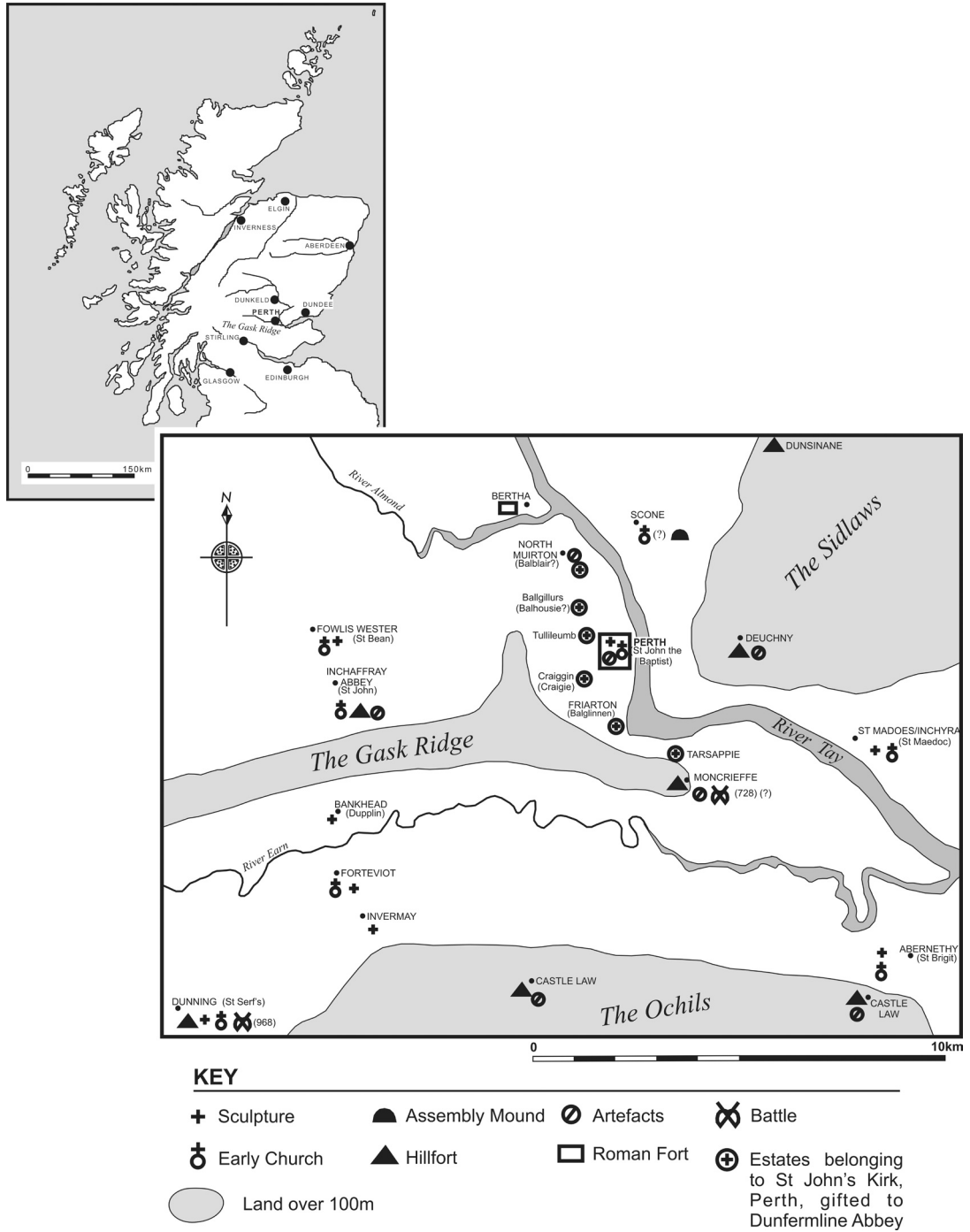
... when we write of urban origins we should distinguish between the town which is a settlement and a way of life on the one hand and the burgh which is an agglomeration of privileges designed to further the way of life on the other. It must surely be plain that David I did not choose the spots and create the communities *ab initio* like so many twentieth-century new towns (Duncan 1973, 31).

This is a theme subsequent writers have elaborated on from an archaeological perspective<sup>1</sup> (Spearman 1988; Dennison 1999). Ironically, documentary evidence gives some of the first clues to a pre-burghal urban centre at Perth. By AD 1128, Perth's church, as we have noted above, was already in existence and was granted to Dunfermline Abbey (Duncan 1973, 32; Barrow 1999, no 33), its supporting tiends including estates at Muirton (presumably for grazing livestock) and Friarton.<sup>2</sup> Earlier

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ILLUS 1 Location map

than this, charter evidence demonstrates that Alexander I (1107–24) granted to Scone Priory (two miles north, upriver of Perth and on the opposite bank of the Tay) the right to custom-free shipping via English merchants. As A Duncan (pers comm) has observed, there are in fact three surviving charters giving Scone Priory the right to such a privilege (Lawrie 1905, nos 36 & 48; Wilson 1910, 148). The Tay is not navigable as far as Scone and so ships presumably landed at Perth for the onward transport of goods to Scone: Perth lies at what was then the lowest bridging point across the Tay (and before that the lowest fordable point at low tide) and is also the highest point upstream accessible by ship, important geographical determinants for the growth of Perth. An important, early, symbiotic relationship between Perth and Scone is further suggested by the presence of the King: prior to AD 1153, 13 royal charters were issued in Scone and five in Perth; between 1153 and 1296, 13 were issued in Perth and none in Scone (McNeill & MacQueen 1996, 159–60). This demonstrates a focusing on Perth as a royal administrative and commercial centre through the 12th and 13th centuries.

All this makes sound economic sense but there are further geographical considerations to take into account. If one climbs the tower of St John's Kirk in Perth today, the view one is rewarded with demonstrates how carefully the site of Perth was chosen. On all but the north-west side it is surrounded by low hills: Moncrieffe Hill, Craigie Hill and Tulloch Hill to west and south (separated from the nearby Ochils by the river Earn), and Kinnoull Hill and the Sidlaws (notably Dunsinane and King's Seat) to the east and north-east (illus 1). This creates a sense of a very enclosed space around Perth, with the two clear avenues of approach being from the opposite ends of the Tay valley, which to the immediate north-west broadens out into Strathearn. The key drawback would seem to be the hazard of the flooding Tay (a greater hazard as the town has grown outwards into the flood plain). But, as David Bowler has demonstrated,

the site was carefully chosen topographically, its historic core sitting on a low platform which:

in extreme flood conditions ... could become almost an island in the middle of a natural basin ... A low but dry platform on the riverbank, almost entirely surrounded by water-logged ground and pools of standing water, which would have had some limitations but would have been comparatively secure and defensible, a tolerable substitute for ... impregnable castle rocks, or the perhaps increasingly inconvenient hillforts such as Moncrieffe Hill (Bowler 2000, 62; 2004, 12–20).

We might also add Deuchny Hill to the equation, as another site which, like Moncrieffe Hill, could have been a focus for early medieval settlement, perhaps of those people amongst the ancestors to Perth's first settlers.

Deuchny and Moncrieffe lie approximately two and half miles east and south of Perth, respectively, facing each other across the Tay. The comparatively small size of Deuchny and its possible vitrification may argue for Late Iron Age/early medieval occupation. Limited fieldwork there has produced rather undiagnostic finds including a stone mortar, hammer stones, calcined bone and – like Moncrieffe Hillfort – a single fragment of worked jet, consistent with these periods. In his discussion of the site, Robert Watson noted that on old estate plans the site was marked as Grassy Law; he conjectures this '... would indicate that at one time it had been a place of meeting, if not a court'<sup>3</sup> (Watson 1923, 6).

The most recent description of Moncrieffe Hillfort remains that by Feachem in Wainwright's *The Problem of the Picts*. Feachem noted that the hillfort itself is known as Moredun but did not discuss the name (Feachem 1955, 79–80). Its meaning in Gaelic of 'big fort' would certainly be an apt description of the stone-built structure with inner citadel that once stood there, though the early history of the name remains obscure.<sup>4</sup> Moncrieffe Hill also overlooks the Tay valley and, crucially, the lower reaches of the river

Earn, which joins the Tay just above Abernethy. Like Deuchny, the hillfort here is also a strong contender for early medieval occupation; in the year 728 it was probably the scene of a Pictish dynastic battle or skirmish (Anderson 1922; Watson 1926).

William Watson interpreted the name Moncrieffe Hill as a Gaelicized version of a British (ie Pictish) name meaning ‘hill of (the) tree’. He took this as referring to a conspicuous tree, possibly a tribal tree that stood there (Anderson 1922, 223–4; Watson 1926, 400–1). Watson interpreted Perth’s name as a British (ie Pictish) survival comparable to the Old Welsh *pert*, ‘brake, brush or copse’. He suggested a connection to *Perta*, ‘wood, copse’, in Gaul, where it is also the name of a grove goddess (Watson 1926, 356). In this context, we should also note the possible earlier presence of a Romano-Celtic shrine on what is now the North Inch, Perth, as suggested by a second-century AD Romano-Celtic head found there close to the river Tay and its junction with the river Almond (the head is now in the collections of Perth Museum; Ross 1966, 31–7). This may have been associated with a ritual well or series of ritual pits close to the Tay (Ross 1966, 36–7) and we should recall that the obscure name of the Tay could mean the ‘Silent One’, possibly in reference to a river goddess (Watson 1926, 50–1).<sup>5</sup>

The tree place-names already mentioned are suggestive of a Pictish landscape marked out with significant tree or woody places, politically so and possibly with a religious element. A religious site, for example, would also make sense in conjunction with the fording of the river, to help ensure safe crossings (compare the later medieval chapel on the bridge in Perth). There may also have been a legal context for some tree places. An early fifth-century Gallic text, *Querolus*, includes a statement describing the non-Roman legal situation prevailing in the Loire region of Gaul: ‘There men live by the law of nations with no fraud. Capital offences are pronounced under an oak tree and recorded on

bones ...’ (Janes 2003, 111–12).<sup>6</sup> The possible parallel of justice dispensed at significant tree-places is a compelling one. We are not arguing that the original settlement of Perth was the Roman fort at Bertha as this cannot be substantiated (the myth that it derives from medieval historian John of Fordoun’s assertion that the place he was the first to call Bertha, and which the Romans probably called *Tamia*, was the original Perth; this was compounded by Hector Boecce’s later claim that Perth was founded by William I after the royal castle of Bertha had been swept away by flood; see also note 7). The evidence that survives is sufficient to suggest there is a Late Iron Age religious/cultural background that informs our understanding of the name Perth and suggests there may have been a specific pagan–Christian transition.<sup>7</sup>

The political landscape around what became Perth is a little more visible in the ninth to tenth centuries. There are royal estates at Scone by the late ninth to early tenth century – a place that probably had a royal thanage, an early church and a place of royal inauguration<sup>8</sup> (RCAHMS 1994, 90 & 124–7; Fawcett 2003, 169–82; Driscoll 2004) – and at Forteviot, some five miles to the north-west in Lower Strathearn from at least the ninth century (Alcock & Alcock 1992, 215–87). Opposite Scone, across the Tay and immediately to the north of Perth, are the remains of the Roman fort that we call Bertha,<sup>9</sup> commanding the junction of the rivers Almond and Tay and the northern terminus of both the Roman road north and the earliest Roman frontier, the Gask Ridge. This fort is a candidate for early medieval re-occupation as the putative site of Ràthinveramon, to which there are documentary references in the ninth and tenth centuries, though opinion generally favours associating the name with Cramond, on the river Almond joining the Forth (Anderson 1922, 517–18; MacDonald 1982, esp nos 1 & 51–3). It is worth noting that recent analysis of the Stone of Destiny led to the speculation that its inception as an artefact could possibly have

been for use as a block of Roman masonry or an unused Roman altar stone (Hill 2003). The nearest Roman fort to Scone where stone was worked is Bertha, where it was used in building construction and for more portable objects, including a second-century altar or dedication slab inscribed *Discipulinae Augusti*, ‘To the discipline of the emperor’ (Keppie 1984, 402). It may be Roman stone-working techniques that influenced the carving of the so-called Celtic stone head from Muirton, discussed above. The local geological sourcing of the Stone of Destiny to the Scone area, possibly to the bed of the river Tay (Phillips et al 2003, 38–9 & illus 19), helps to tie down its possible provenance to Bertha a little further: if the Stone was quarried locally for Roman usage, then Bertha is the most likely place where it was worked. As a corollary, it may suggest early medieval activity at Bertha, if only for the appropriation of abandoned (but status-imbued) materials.

This brief outline of the estate landscape in the vicinity of Perth helps to make sense of the location of Perth itself, eminently suitable to serving the needs of these estates in terms of communication and exchange of goods. Recent archaeological work in the town helps to support this early development context. Excavations at 80–6 High Street in 1992 established the presence of a wattle-lined ditch presumed to define an enclosure or precinct around an early church.<sup>10</sup> The construction of this ditch was radiocarbon dated to cal AD 960–1199 (Moloney & Coleman 1997, 710–12).<sup>11</sup> The excavators drew attention to the possible relationship of this early, if not the earliest, phase of St John’s Kirk and Watergate, which is regarded as the oldest area of urban development in Perth. Supporting this early development of Perth are two artefacts of key importance in this context (ibid, 710). The first is a fragment of a ninth- to tenth-century cross-slab found in a garden in Scone in 1978 but probably originally found in the vicinity of St John’s Kirk during its renovation (Lye & Fisher 1981; Moloney & Coleman 1997, 775; on Lorimer’s restoration see Fawcett 1987).

This adds significant weight to the probability of an early church in Perth, the elevated situation of which is comparable to several other church sites in the vicinity, notably Inchaffray Abbey, Strathearn. The second artefact is the hilt and blade fragment of an early medieval sword found in Watergate in 1848 and probably ninth–tenth century in date.<sup>12</sup> It should also be noted here that the Perth High Street (hereafter PHS) excavations of the mid-1970s recovered a sword-hilt then thought to be deposited c AD 1150–1200. Based on Petersen’s classification and its subsequent amendments, the hilt is datable to the ninth–tenth century. Caldwell (forthcoming) plausibly argued from sculptural evidence that there could have been a later tradition of such swords in Scotland, continuing to the 14th century. However, given that we now have two such swords from Perth, the arguments in favour of heirlooms, or, in the case of the PHS sword-hilt, a re-deposition, are surely more persuasive. The swords in themselves do not prove an ecclesiastical or secular settlement but, added to the evidence for an early church (the cross-slab and the early ditch), do strongly reinforce the case. The possible nature of an early settlement at Perth has also been recently examined by Colleen Batey, who suggested that whilst there was insufficient evidence to indicate a Viking town there remains the possibility of an early dispersed settlement with a seasonal market focus which may have included Viking elements.<sup>13</sup> This picture is made more persuasive by the results of recent radiocarbon dating of carbonized deposits on pottery from the PHS excavations, to which we now turn.

#### RADIOCARBON ANALYSIS OF POTTERY BEARING CARBONIZED FOOD RESIDUES

Directed by the late Nicholas Bogdan, the excavations at 75 High Street, Perth were, until recently, the largest urban excavations ever to have taken place in Scotland. They are well known to Scottish medievalists for

the scale and nature of their deposits and the level of preservation of both organic artefacts and timber buildings. As yet the excavations remain unpublished (there are detailed archive holdings in both Perth Museum & Art Gallery and RCAHMS) but the final phase of post-excavation, led by Historic Scotland, is nearing completion with a series of monographs planned in the name of the late N Q Bogdan. The earliest phases recovered from the PHS excavation have long been considered to have the potential to be of pre-burghal date (late 11th/early 12th century), which is why samples of carbonized pottery were specifically selected from Phases I and II.

Prior to the discussion of the results of the radiocarbon dating it is worth considering the suggested date and provenance of the group of Shelly Ware fabrics from the PHS excavation. Analysis of these fabrics by Lynne Blackmore and Alan Vince has suggested that they all belong to the London Shelly Ware tradition. In England, the early version of this fabric is dated to the tenth and 11th centuries, with a suggestion that in Oxford and London it disappears from the archaeological record by the early years of the 11th century (Vince 1985, 25–93). The vessels in the assemblage from 75 High Street are hand-made but have wheel-thrown rims, and this manufacturing technique suggests they belong to the mid to late 12th-century phase of this industry (A Vince, pers comm). This dating of the early phases of 75 High Street, Perth, was not readily accepted by those involved in the ongoing research due to the narrow time gap that was then created between Phases I and II [the latest phasing produced by N Q Bogdan in 1996 placed Phases Ia–Ic between the early 12th century and slightly before 1150, and Phases IIa–IIc between 1150 (or slightly after) and the later 12th century, with the start of Phase II underpinned by a dendrochronological date of 1150/51 by a timber from Building number 6, a possible tenement<sup>14</sup>].

The dating of the Shelly Ware fabrics from London is based on dendrochronological dates

from the timber revetments of waterfronts on the Thames (L Blackmore, pers comm). However, the potsherds are all from the banks dumped behind these revetments and there must surely be a very strong chance that they originate from earlier deposits. The provenance of these Shelly fabrics is still not definitely confirmed as being South-eastern England, because similar fabrics were also produced in Frisia in the ninth and tenth centuries and in the English Midlands (Stilke 1995, 11–18). Most of the sherds are from cooking pots, with one virtually complete example giving the best idea of form. There is also a fragment of a tripod leg with a central thumbed strip, which is paralleled from excavations at Billingsgate in London (L Blackmore, pers comm).

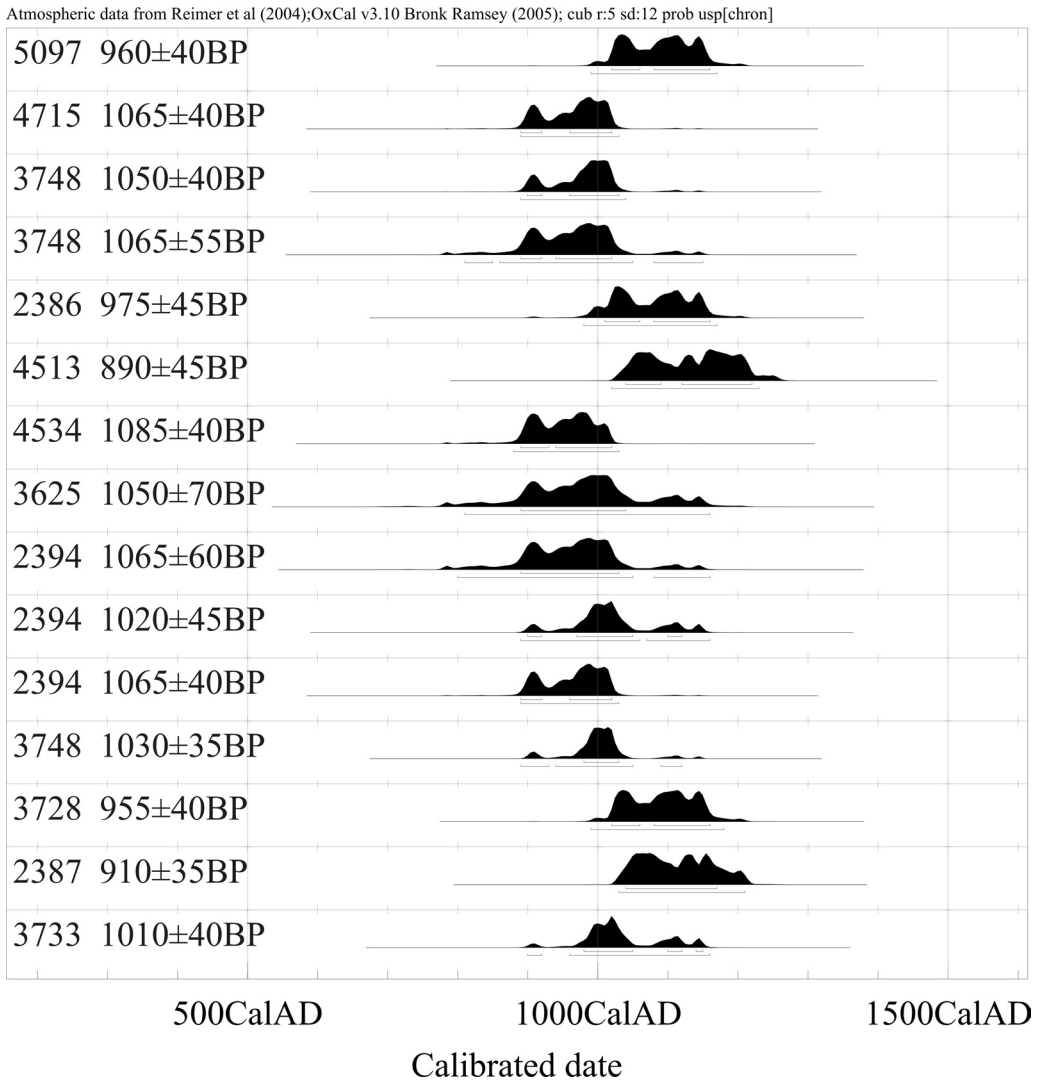
Recent dendrochronological analysis by Anne Crone of extant timbers from the early phases of PHS have as yet no fixed date because they cannot be correlated with any existing chronologies, including the PHS chronology constructed by Mike Baillie. There are no Scottish medieval chronologies that extend back beyond the mid-tenth century and it is possible that the PHS samples could date to this time.<sup>15</sup> For many years it has been argued that the ceramics from the early phases of this excavation might be of pre-burghal date but analysis of the imported wares has argued that they date no earlier than AD 1150 (A Vince, pers comm). Breaking this impasse has been made possible by Historic Scotland's agreement to sponsor an attempted dating of those imported sherds with carbonized surfaces. Direct dating of organic carbon derived from archaeological ceramics was first attempted in the late 1950s (Ralph 1959; Stukenrath 1963) but the large quantity of carbon required for radiometric <sup>14</sup>C analysis was usually prohibitive; however, with the advent of accelerator mass spectrometry (AMS) and the requirement for 1mg (or less) of elemental carbon, the technique has become potentially very useful for direct dating (eg Hedges et al 1992), as opposed to dating by association using charcoal, with its potential uncertainties. The



samples from PHS were ideal for <sup>14</sup>C dating as they had thick (1–2mm), highly carbonized encrustations of food on the external surface of the sherds. Food residues are susceptible to geochemical contamination (Bonsall et al 2002); however, this is unlikely to be an issue here because of the degree of carbonization (Hedges et al 1992). Ten carbonized sherds of Shelly Ware fabric from the earliest phases (all from contexts associated with the earliest buildings on the site) were chosen for analysis, later

augmented to 15 in a further test of the approach being taken. In an attempt to help with the dating of the structural elements of the buildings, six timber samples were also submitted from the earliest phases.

Care was taken when removing the carbonized encrustations that no sherd material was included, in order to negate any possibility of incorporating contamination from organic coatings on the clay minerals (de Atley 1980), as such contaminants have been shown to survive



ILLUS 2 Radiocarbon dates from PHS pottery

firing (Johnson et al 1988). The samples were placed in beakers and heated in dilute (1molar) hydrochloric acid (HCl) solution for three to four hours at 80°C, filtered through Whatman GF/A glass fibre filter paper and washed with distilled water. They were then transferred to dilute alkali solution (2% w/v sodium hydroxide – NaOH), heated at 80°C for three to four hours, filtered and transferred to a second hydroxide solution and the process repeated. Finally, the samples were again heated in dilute HCl, cooled, filtered, washed with distilled water and oven-dried ready for processing. Subsamples were combusted in evacuated, sealed quartz tubes using copper oxide as the oxidant and silver foil to react with and remove gaseous contaminants (halides). The tubes were opened under vacuum, the CO<sub>2</sub> recovered and purified and then converted to graphite according to the method of Slota et al (1987).

The first batch of ten samples was radiocarbon dated at the University of Arizona, National Science Foundation AMS Laboratory using either the National Electrostatic Corporation (NEC) 3MV or General Ionex 2.5 MV terminal voltage instruments, with carbon in the 3+ charge state. The second batch of five samples was analysed at the SUERC AMS facility (NEC 5 MV terminal voltage instrument) with carbon in the 4+ charge state.

The 15 carbonized pottery sherds produced uncalibrated dates ranging from 890 to 1085 BP, giving us a calibrated range of AD 810–1230. When considered together in a multiple plot (illus 2), it is quite striking that all 15 of the calibrated pottery dates overlap between AD 940 and 1020, and when the six timber dates are also included this overlap pulls even tighter to AD 1020–30. There are two errant timber dates of AD 1250–1310 and AD 1165–1235, which are hard to explain unless this effect was caused by preservative in the wood. In essence, of the 21 dates received from the samples submitted, 19 suggest dates that are at least 100 years earlier (ie *c* AD 1020–30) than the founding of the burgh by King David I.

The present phase dating of the PHS site can no longer stand: the <sup>14</sup>C dates suggest buildings being occupied by the 11th century. This growing certainty of a settlement by the 11th century means that the early phases of the PHS site need to be re-examined, particularly the suggestion that Phases I–If all fall within the period AD 1100–50.<sup>16</sup> A non-exhaustive selection of artefacts from these phases includes leather shoes, offcuts, scrap and straps; bone/antler casket mounts, combs (single-sided), a pin, playing equipment and a possible pin-beater (diagnostically late Roman–early medieval); woollen textile fragments (both tabby and twill weaves); and metalwork wire, dress rings, blades, slag, nails, horseshoes, keys, rivets and padlocks.<sup>17</sup> This material shares the same phasing and some of the same contexts as the <sup>14</sup>C-dated pottery. The archaeological start date for the PHS site can therefore no longer remain fixed at AD 1100.

## CONCLUSION

As long ago as 1975, Archie Duncan (1975, 470) observed that the pre-burghal settlements must have been in existence before the 12th century, a theory pushed and developed by Mike Spearman's archaeological analysis of 1988. The popular fetter of 'burgh status' that has determined the understanding of the earliest town development in Perth is now decisively broken. The combined evidence discussed above suggests the strong possibility of a proto-urban, pre-burgh centre with an early church (defined by a boundary and stone sculpture) as its focus, occupying as it does the highest point of the dry ground upon which it stands. Other artefactual evidence suggests that this church-focused community was using imported pottery in its kitchens. This in turn raises the question as to who the occupants of the early settlement were and why they were using imported cooking vessels. The association of unidentified Greyware fabrics (some of which may be Danish)



with these Shelly Wares adds a further degree of intrigue to the equation, possibly supporting the idea of Scandinavian influenced trading activity. The suggestion of estate administration in the vicinity, including at Scone, and the presence of a seasonal market (possibly annual) leading to a permanent settlement have to colour our understanding of this development.<sup>18</sup> Colleen Batey's recent informed speculation on possible Viking influences in early Perth noted that it may have been a dispersed settlement.<sup>19</sup>

The evidence and our interpretation of it does not as yet allow us to say with certainty whether the emergent town had either one or two areas of focus. If two, we would postulate an early church and a secular, possibly irregular, settlement along what became the High Street but what was before then a route-way to the ford across the Tay. The line of an early ditch recorded on the PHS site (Bogdan & Wordsworth 1978, 13) may well have been an early settlement-defining ditch, analogous to that around the putative early church site on the other side of the High Street. As things stand, sufficient proof is lacking to indicate whether pre-burghal Perth was primarily secular or primarily religious or at what point any secular, economic factors outweighed religious ones in the growth of the settlement.

One could argue that the most important result of this dating is the proof that it is feasible to carbon date carbonized deposits on cooking vessels and achieve consistent results as long as the samples submitted are from associated contexts. With this in mind, it is recommended that a similar set of samples are submitted from the King Edward Street excavations, the other large group of well stratified Shelly Wares from Perth, to see if a similar set of dates are received. These excavations took place on the opposite side of the High Street and recovered evidence for structures and activity similar to those in the early phases of the PHS excavation.<sup>20</sup> Such dates would lend significant weight to the case for Perth's early development as laid out in this paper.

Perth secured its place and prospered to the extent that, by the 12th century, it was a ripe candidate for designation as a burgh, allowing the Crown to formalize its share in the wealth being generated by its subjects and possibly by foreign merchant groups. Burgh designation would also serve to bolster royal control of the landscape adjacent to its possessions in Scone and Forteviot which shared a boundary with one of the principal and most powerful lordships in the realm, that of the earldom of Strathearn.<sup>21</sup>

Of course no two burghs are the same, they all have their own unique stories to tell, but as early Perth increasingly comes into the light so a fresh look at the early settlement phases of Scotland's other burghs is demanded. A sorely needed research agenda for first millennium and later Scotland would go a considerable way in defining the priorities and strategy for such an enquiry.

## ACKNOWLEDGEMENTS

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## NOTES

- 1 Simpson 1972, 8–10, had earlier sounded a cautionary note.
- 2 The confirmation charter of Malcolm IV (ie confirming David I's grants to Dunfermline Abbey) is in RRS I, nos 157 & 158. See also Rogers 1992, 210, where he identifies Muirton as the Balblair of the charter. Friarton was then

- known as Balglinen, probably meaning ‘estate or holding of Gille Fhinnain/Gille Fhinnein or of the sons of the same’, a reference to St Finnan (S Taylor, pers comm). The other lands mentioned in the charter comprised Balgillurs (possibly to be identified with Balhousie), Balglassie (unidentified), Craggin (Craigie), Petultin (unidentified), Tarsappie and Tullielumb (thanks to Simon Taylor for discussing these).
- 3 For early investigations at Deuchny see Watson 1923, 303–7; 1930, 3–7. The most recent brief discussion is in RCAHMS 1994, 51.
  - 4 The name Moredun/Mordun occurs generally on the OS map series; the earliest reference found to it is in the OSA, 141. Moredun is presumably an Anglicization of the correct Gaelic form of ‘big fort’, *Dun Mor*. Pennant 1776, 86–7, ascended the hill on his 1769 tour but makes no reference to the remains or the name Moredun.
  - 5 Contra Watson, Nicolaisen 2001, 244, suggests that Tay is part of a group of river names possibly deriving from the Indo-European root \*ta-, tǝ- ‘to melt, to dissolve, to flow’. The jury remains out on whether Tay is Celtic or pre-Celtic Indo-European. See also Rivet & Smith 1979, 470.
  - 6 The Roman legal system may have differed but they seem to have been just as inclined to appropriate the landscape in religious ways – such as holy groves of trees – as the indigenous peoples they conquered: see for example Seneca’s *Epistle to Lucilius* XLI, in Gummere 1917, 273–5.
  - 7 A certain amount of confusion has been created around the name Perth/Pert and Bertha. The variation of Pert occurs in a number of silver pennies of William I (minted in Perth), charters (see note 2 above) and on the 14th-century Carmelite Friary seal matrix, for example. However, this spelling, as opposed to the spelling Perth, is probably due to Anglo-Norman scribal tradition rather than a surviving early form (S Taylor, pers comm). The burgh’s seal matrix of 1296 bears the spelling Bert, which is the form used by the later medieval historians Fordoun, Boecce and Bower (the latter may be taken as typical, see Taylor et al 1990, esp 343 & no 58, and see also Rivet & Smith 1979, 512). They all use Bert or Bertha to refer to the early town of Perth, which they situated at the Tay–Almond confluence, thus giving the medieval burgh of Perth a spurious Roman past. The somewhat unreliable Cowan 1904, 7–9, invents a full, continuous and glorious history for Perth from the time of Roman foundation in the first century right through the medieval period, including a visit from Columba and a delightful etymology for the name, which starts as Aber-*tha*, contracts to Bertha, thence to Berth and then to Perth, equally being known as St Johnstoun from the later sixth century following the conversion of the Picts, but even he does not accept the Roman fort as the original Perth. It remains unclear as to whether the word Bertha is a genuine early form of Perth. Cognate Welsh variation in the initial p and b of the names is a standard one of lenition or soft mutation. Insufficient evidence survives to say whether this could account for early variation between p and b in Perth/Berth(a) (S Taylor, pers comm).
  - 8 As a thanage, Scone emerges in the documentary record in 1234 (Grant 1998, no 53). As a place of clear royal inauguration, it is first documented in the 13th century (Duncan 2003, 139–67, 183–205). An early church, royal centre and place of ceremony is suggested by the reference, probably for AD 906, to King Constantine II and Bishop Cellach conducting a ceremony on the Hill of Faith – Scone’s Moot Hill – of a predominantly religious nature (Anderson 1922, vol 1, 445; Clancy 2003, 84–105).
  - 9 The Roman name for Bertha remains unknown. Rivet & Smith 1979, 512, accept Rathinver-amon as the name pre-dating the medieval invention of Bertha. They reject Collingwood’s suggestion that the Roman name was Tamia (ibid, 465) on the grounds that the place and the name form do not match. However, given that Bertha is on the Tay and that the Tay and Tamia may share the same root, it remains a possibility that Bertha could have been Tamia.
  - 10 Sited perhaps on the site of the ‘tree-space’ alluded to in the name Perth? The kirk seems always to have carried the dedication to St John the Baptist, making it perhaps the earliest such dedication in Scotland (for other St John dedications see Mackinlay 1910, 316–35). There are also continental parallels, notably from Ghent, Flanders. Though the church there is now designated the cathedral of St Bavo, it has only been so since the 16th century. Prior to that it had been (since the tenth century) a chapel, and since the 11th century the parish church of St John the Baptist (van de Wielle 1994, 4–5). Flemish merchants are a recognizable group in Perth by the 12th century.

- 11 In Maloney & Coleman 1998, the date is given as AD 998–1039, the date given here is the one modified in the more recent version of the Historic Scotland <sup>14</sup>C programme.
- 12 The Watergate sword fragments have been recently re-examined by C Patterson for the catalogue in Graham-Campbell, forthcoming. Both the sword (accession no 147) and the cross-slab (accession no 1979.5) are in the collections of Perth Museum.
- 13 Colleen Batey's paper 'Scandinavian Influence? I: Archaeological Background' given at the conference 'Perth & Beyond: Resourcing the Medieval Burgh, an Archaeological Perspective', held at Perth Museum 2002, is available as part of the on-line conference proceedings at [www.tafac.co.uk](http://www.tafac.co.uk)
- 14 Building 6 is of post-and-wattle construction and has a suggested date of c 1125–50, described by Hilary Murray as: 'As with other of the more fragmentary buildings it was difficult to determine whether all of the structures termed B6 were part of one long building (B6 north and south), possibly a tenement, or whether the south and (B6 south) was the main building with the north end as a lesser building or just a yard' (Murray, forthcoming).
- 15 The Shelly Ware sherds for <sup>14</sup>C analysis were selected by Derek Hall from the pottery archive held by Perth Museum & Art Gallery; the samples were analysed by Gordon Cook of SURRC, East Kilbride, with generous grant-aid provided by Historic Scotland. For the gap in the dendro-curve for Scotland see Crone 2000, 207–8 & 213–15.
- 16 The most recent phasing chronology in the site archive held at Perth Museum is that produced by the late N Q Bogdan in 1996.
- 17 This non-exhaustive list was put together from the finds lists in the site archive held by Perth Museum and confirmed by the catalogue entries in the forthcoming fascicules of the PHSE: leather (Clare Thomas), worked skeletal material (Arthur MacGregor), textiles (Helen Bennett) and metalwork (Ian Goodall). Three similar single-sided antler combs are also known from the King Edward Street site in Perth, and are of a type widely known in the North Sea world by the 11th century. They are dated to the 12th century by association with the pottery but the dating of the pottery to the 12th century was never absolute; comparison with the newly dated Perth pottery samples suggests it could be earlier (Bowler et al 1996, 968–9).
- 18 For a recent discussion of the general issues of pre-urban development, based primarily on the evidence from England and Wales, see Dyer 2003, 88–98. For a Europe-wide discussion of towns in the late first millennium, see Clarke & Ambrosiani 1991.
- 19 See Batey, op cit, in note 13.
- 20 See Bowler et al 1996, 931–8.
- 21 For the nature of the earldom of Strathearn, see F Watson 2005, 26–44; A Watson 2000, 169–74; and Neville 1983.

## ABBREVIATIONS

- RRS I = Barrow, G W S (ed) 1971 *Regesta Regorum Scottorum I: The Acts of Malcolm IV King of Scots 1153–65*. Edinburgh
- RRS II = Barrow, G W S (ed) 1971 *Regesta Regorum Scottorum II: The Acts of William I King of Scots 1165–1215*. Edinburgh

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