St Serf’s Island
Exploring a monastic landscape on Loch Leven
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Introduction

This article presents results from new archaeological investigations at the monastery of St Serf’s that is located on an island in Loch Leven, Perth and Kinross (O’Grady et al 2014). Here the focus is to consider the archaeological and landscape context of the monastery. The aims are to understand more about the site’s historical development and reflect more broadly on the potential roles that monasteries could have in early medieval political landscapes.

The abbey of St Serf’s (from 1248 referred to as ‘priory’) was a monastery of the Augustinian order established in c 1150 through the reform of an earlier monastic community. According to a land grant transcribed in the late 13th century, this earlier community occupied the island along with a ‘small church’ from c 700, and was established through a royal grant of king Brude son of Dargart, and by the 9th century included a house of Culdee (Old Gaelic Céli Dé) hermits, (Hall 2007, 380; Kerr 1881, 161; MacQuarrie 1997, 152; Taylor et al 2017, 470–1, 572).

An alternative tradition, recorded in the 12th- or early 13th-century Vita Sancti Servani, claimed that St Serf founded the monastery following a grant of the island to him by St Adamnán of Iona (d704), though other traditions record St Serf’s period of activity during the 6th century (MacQuarrie 1993, 140, 149; Smith 1996, 26; Taylor et al 2017, 573). The historical background to the monastery, St Serf and the literary works of the renowned 15th-century prior Andrew de Wyntoun have been discussed at length on previous occasions (Hall 2007; MacQuarrie 1993; 1997).

Most recently by Taylor (et al 2017) including useful translations of a large collection of charters and other historical documents relating to the monastery in the St Andrews cartulary, some of which appear to be copied from 11th-century texts written in Gaelic. Further aspects of the historical background to the monastery are covered in a later section of this article as this will be important when considering the significance of the archaeological findings.

This article is organised into sections the first four of which review and introduce information relating to the Culdees, Loch Leven and St Serf’s island, the historical background to the monastery and a summary of the monastic buildings that survive on the island. As some of this material has been formerly covered by other scholars at length, the intention of these sections is to highlight key information of relevance to the latest archaeological findings. Four further sections then follow presenting the key findings from the archaeological investigations between 2011–13, including land survey of the island, geophysical surveys and the results of trial excavations across a boundary ditch and a possible fish pond. The article is concluded with discussion of implications for the political significance of the monastery.

The foundation research for this article formed part of a wider project initiated by the author to explore the layout and size of enclosed early medieval churchsettlements in eastern Scotland (O’Grady 2012; 2012a). In addition to St Serf’s Priory the project included investigations at Fortingall and Dunkeld Cathedral, also in Perth and Kinross (O’Grady 2012b; 2014). The project was intended to advance understanding of variations in the layout and scale of early medieval monasteries or churchsettlements. This was to help illustrate regional differences in site forms, and consider whether such characteristics could be linked to differing political and religious functions in the development of pre-reformed monasteries in Scotland. This avenue of research stemmed from the author’s work on links between the early medieval Church and the development of judicial assembly sites in Scotland (O’Grady 2014a, 113–26, 131).

Community engagement formed an important part of the project and was a principal factor in the choice of project title as the ‘Culdee Archaeology Project’. This name served two functions: to stimulate public interest and engagement in the research as a means to also challenge antiquated and inaccurate ideas about the ‘Culdee’. A secondary aim of the title was to attract community volunteers to participate and learn more about early medieval society, challenging sometimes ill-informed popular notions about the ‘Celtic Church’ (cf Hughes 1981). These misconceptions are compounded by a problematic late 18th- and 19th-century historiography, including works such as Jamieson’s Ancient Culdees of Iona (1811, 1–2), Chalmers’s Caledonia, among others, which perpetuated the ideas of post-Reformation historians, such as the influential late 16th-century theologian George Buchanan. Writers like Buchanan sought to incorporate the Culdees into sectarian notions of the early church in Scotland and could misidentify sites in association with Culdee communities. The influence of these ideas on a local level in Scotland can be seen among antiquarian sources recorded in the Statistical Accounts of Scotland, which sometimes use ‘Culdee’
as cognate with any pre-reformed churchmen, or in relation to traditional accounts of antecedents to reformed monastic foundations (eg Gordon 1845, 1047). The ‘citizen science’ aspects of the project therefore sought to help improve public understanding of the early church in Scotland.

The Culdees (Céli Dé)

The Culdees (the anglicised form will be used in this article) originated in early 9th-century Ireland as an ascetic movement practicing extreme abstinence, and are of significant interest for understanding changes to early medieval society in Scotland. Clancy (1996, 114, 117–18) argues for the movements arrival in eastern Scotland by the mid-9th century via the influence of Iona, particularly by Dairmait abbot of Iona from 814 (Clancy 1996, 111–30; cf Woolf 2010, 314–15, fn 8–9, 316, 318). The writings of the Culdee and details of the broader movement are beyond the focus of this article, other than the implications that these matters have for the archaeology of St Serf’s island, but it is worth briefly noting, as did Taylor (et al 2017, 470), that the subject of Culdee communities in Scotland has received only limited concerted research by modern scholars. The fullest study continues to be Reeves (1864), and Barrow (2003, 187–202) and Clancy (1996) have provided valuable studies of the important links between St Andrews and Iona in the history of the movement to Scotland. Of relevance here is Clancy’s (ibid) argument that the spread of Culdee doctrine to Scotland coincided with an increase in evidence for the formalisation of diocesan church structures and Church sanctioned interregional law, during the late ninth and tenth centuries. Woolf (2010, 314–20) has also highlighted that the spread of the Culdee in Scotland coincided with the onset of the Viking Age and widespread secular re-appropriation of church properties. Did the creation of set-apart Culdee ascetic communities within church-settlements also perhaps open the door to new politicised secular functions for monasteries in Scotland?

St Mary’s at Kirk Hill in St Andrews provides a rare excavated example of a church and burial ground with documented historical connections to a Culdee community. This included an extensive early medieval cemetery and sculptural fragments in associated with the 12th-century later church on Kirkhill located outside of the medieval cathedral precinct (Fleming 1931, 98–9; Hall 1995, 23; Wordsworth 1980). The exact extent of the pre-12th-century church-settlement at St Andrews remains unclear, and although Hall (1995, 24, illus 1) and Foster (1998, 47–50, fig 9) have made useful attempts to map the early medieval finds around the Cathedral precinct, it is not certain whether the site of St Mary’s and Kirk Hill lay within a presumed early medieval vallum enclosure. It is however accepted that St Andrew’s was a royal foundation from at least the mid-8th century (Annals of Ulster records the death of abbot Tuathal in 747), which incorporated several shrines and foci, and by at least the 12th century included the key tower-church of St Rules. Cases have also been made for the monasteries association with some form of royal residence and hall (Foster 1998, 42–3; Skene 1867, 140; Smith 1996, 33). The possibility that the church-settlement may have itself functioned as a royal site, in a similar fashion to the Carolingian klosterpfalzen of northern Continental Europe or Late Anglo-Saxon royal church-centres and tower-naves (Shapland 2013; Woolf 2010, 313), has not received enough consideration in relation to early medieval Scotland (O’Grady forthcoming). A royal association or status may also have been the case at St Serf, though the site was probably not of the scale of sites like St Andrews, Abernethy, Forteviot or 11th-century Dunfermline. It is also worth considering whether there was an associated nearby power centre in the environs of St Serf’s island-monastery or whether the monastery took on a political function between the eighth and early 11th century, beyond that of receiving royal grants of land. I will return to this question later in the article.

Loch Leven and St Serf’s Island

The remains of St Serf’s monastery are located at the SE end of an irregular shaped island of the same name in Loch Leven. This is the largest of several islands in the loch, which include a grouping near the W shore comprising small crannogs and Loch Leven Castle island, the site of a late medieval towerhouse and before the 14th century a royal property (Munro 1994, 11). Loch Leven is designated a National Nature Reserve and the island includes a protected bird sanctuary and Site of Special Scientific Interest. Access to the island is managed by Scottish Natural Heritage and normally restricted due to seasonal bird-nesting. The island is the legal property of Kinross Estate (ibid). Also known as Portmoak Island, it is situated at the SE corner of the loch in Portmoak parish, 4km E of Kinross (Illus 1). The site of Portmoak medieval parish church is located adjacent to the island on the former shoreline c.1.4km to the NE, where in 1976 an early medieval cross-slab of ninth- or 10th-century date was uncovered. Carved in false-relief displaying an interlace-filled Latin cross on one face, the sculpture’s form is comparable with 9th-/10th-century examples at St Andrews Cathedral (Hall 2007, 395; Munro 1976). The place-name Portmoak has the meaning ‘port (OG port) of Moachan’ indicating this place as the harbour of the nearby monastery-island in association with a saint’s name. Taylor has made a convincing case that this name is related to the Old Irish word for a ‘slave or serf’ and thus is a vernacular form of the name St Serf and evident in the primary dedication of Portmoak church to St Moanus (Taylor et al 2017, 538, 560–1). Recent geophysical survey and trenching by the author near the Portmoak church-site has revealed part of a large c.4m wide ditch-defined enclosure centred on the church,
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Illus 1 Location map of St Serf’s Island, Loch Leven. (Reproduced from Ordnance Survey map data by permission of Ordnance Survey © Crown copyright 2017).

curvilinear in plan and c 100m in radius (O’Grady forthcoming). Dating evidence is forthcoming for this feature, so any interpretations are provisional at this stage, but at least on morphological grounds this could be the remains of a large *vallum* enclosure and therefore suggestive of another important church-settlement on the shoreline at Portmoak, opposite St Serf’s Island. The early medieval significance of Portmoak and its relationship with the adjacent island-monastery is another crucial question for understanding the function and status of St Serf’s monastery.

The loch’s water level was lowered from 1832, after which time the island was subjected to several clearance events and agricultural improvements (Munro 1994, 88–9; Illus 2 and 3). This led to removal of most of the upstanding remains of the priory buildings, the introduction of grazing, the cutting of drainage ditches across parts of the island (Annan 1862; Hall 2007,380; Kerr 1881,161) and in 1834 trenching began around the ‘old church’ (Munro 1994, 89). Remains of drainage furrows created during the Improvements

Illus 2 Oblique aerial photograph of St Serf’s Priory from the west. (Courtesy John Williams)
are visible on aerial photographs of the island (Illus 2). From 1877 unrecorded excavations were undertaken at the priory under the supervision of Kinross Estate. The excavations were subsequently reconstructed in an account of visits to the island made by several antiquarians, including Andrew Kerr in 1881, that were published in the Proceedings of the Society of Antiquaries of Scotland (Annan 1862; Kerr 1881; cf Hall 2007). Hall has produced a useful inventory of finds made on and around the island that are in the care of Perth Museum and Art Gallery, which notably include a long-tanged iron arrowhead found on the island in 1922 of 10th-century Scandinavian type (Hall 2007, 389, illus 41).

The island’s current shape and size (36 hectares) does not reflect its original form. The introduction of a sluice system to the loch during the early 19th century led to large-scale reclamation of land on the N side of the island. Comparison of historic maps dating from 1828 to the early 17th century show the original smaller outline of the island (Munro 1994, 19, 83, 89; Illus 3). The island was originally narrower in width from N to S and with an overall more strand-like appearance, smaller in area at approximately 22 hectares. A low ridge of land still visible along the S side defined the historic centre-line of the island, with the highest point at the E end where the monastery buildings were located. There appears to have been a prominent bay at the W end of the island, defined by a thin strand of land and now evident as an area of wet ground and rushes (Illus 3). This feature is probably the bay referred to as the ‘Pond of the Inch’ by 18th- and 19th-century commentators and traditionally acted as a natural harbour (Kerr 1881, 162).

**Historical background**

Much of the historical background to the monastery has been reviewed in recent years by other scholars (Hall 2007; MacQuarrie 1997; Taylor et al. 2017). A summary is of relevance here to provide context
for the archaeological findings to follow and for the proposal of new ideas. As noted above St Serf’s Priory was established c 1150 as an Augustinian house replacing and subsuming an earlier monastic settlement possibly founded c 700 with the support of Brude filius Dergard whose death is noted as 707 (Hall 2007, 380; Kerr 1881, 161; MacQuarrie 1997, 152). Brude’s potential role in the site’s foundation may be significant as his father is widely accepted to have been of west-coast Dalriadian lineage (Dargart of Cénél Congaill) and his mother Der-Ile of ‘Pictish’ descent. Or to be more circumspect about such ethnic labels, Der-Ile was probably a Brythonic-speaker from eastern Scotland, a possibility that has been argued as one of the ways that Brude’s claim to high kingship was legitimised (Clancy 2004, 130, 133, 135; Fraser 2014, 239; Woolf 2017). In a similar fashion Brude’s possible patronage of a local ‘native’ saint in St Serf, may have been part of a measured political strategy to secure his claims to lordship in the region. St Serf, the name’s Latin form Servanus meaning ‘little servant’ (Taylor et al 2017, 361), had a prominent regional cult, mainly restricted to west Fife, Clackmannanshire, Kinross-shire and Strathearn, with a principal dedication and shrine at Culross on the Forth and the centre of the saint’s familia (Hall 2007, 380; MacQuarrie 1997, 152; Taylor et al 2017, 573). The regional patronage of this ‘native’ saint, who in one historiography was assigned royal lineage (MacQuarrie 1993, 131; Smith 1996, 26–8), may reflect a parallel secular political territory within the bounds of which St Serf’s was promoted during the eighth and ninth centuries. The monastery at Loch Leven received further extensive royal and comital grants from the 11th century, most notably by king Macbethad and queen Gruoch in 1040 x 1057 (Taylor et al 2017, 366–631). The monastery was given to the priory of St Andrews as the ‘abbey of Loch Leven Island’ by the Bishop of St Andrews in c 1150 at the same time as David I’s reform of the community (ibid, 470). By 1580, following the Reformation, the priory was given over to St Leonard’s College, St Andrews. This summary of key aspects in the monastery’s historical background has highlighted that the early medieval prosperity of this daughter foundation of Culross was closely aligned with elite secular political interests in the region between the 8th and 11th century.

The monastery buildings

The priory remains were recorded by the RCAHMS (1933, 305–6) in 1929 and again in more detail in 1998, at which time scaled-plans and elevations were created, replacing those published by Kerr around 100 years earlier (1881, 165, 167; Illus 4). The 1998 survey also benefited from a subsequent assessment of the remains by Piers Dixon during a visit with the author in 2013 (O’Grady et al 2014, 13–14). The site is designated as a Scheduled Monument and managed in state care (Scheduled Monument 90271). The buildings comprise the much-altered ruin of a Romanesque church, a short distance to the west of which are the footings of a t-shaped range of buildings, the outline of the monastic settlement. Though heavily robbed these probably represent two open ranges of the post-1150 to 16th-century Augustinian priory. The t-shaped plan is on a slightly different alignment to the church, which may suggest separate phases of construction (O’Grady et al 2014, 13). Footings of a buttress or exterior stair can be seen at the SE angle of the southern range (a detail absent in the 1998 survey), which also has evidence of an interior partition indicated by a robber trench implying a domestic use. The north range is heavily robbed, but subtle indications of a bank to the NE and the possible truncation of the east side of robber trenches in this area could indicate removal of other buildings or an enclosure. A t-shaped plan means that the monastic buildings were not laid out on the plan of a standard Benedictine cloistered convent (ibid). Dixon has noted similarities with Restenneth Priory near Forfar, also an Augustinian house, where a 12th-century Romanesque church and tower are associated with a north range incorporating a day stair to a dormitory, chapter house and warming room with reduced remains of further adjoining buildings (O’Grady et al 2014, 14).

The late Neil Cameron, who led the 1998 RCAHMS survey, prepared an unpublished analysis of the buildings in which he built a case for close similarities between the church and St Rule’s church at St Andrews and argued for a late 11th-century construction date influenced by late Anglo-Saxon churches (Cameron 2003; cf 1994); though Fawcett (2002) is more widely accepted in opting for an early 12th-century date for St Rules with influence via northern England. Cameron’s draft article does cover much relevant material and provides a further useful summary of the 19th-century excavations at the buildings, and it is hoped that the work can be brought to posthumous publication at a future date. In the present context it will suffice to bear Cameron’s observations in mind when highlighting details noted by the author during visits to the church between 2011–13. The church is orientated with the one surviving cell measuring 7.5m E–W by 4.3m S–N, though possibly originally bi-cameral in plan with a chancel on the E. There are blocked arches in the W and E walls, the W containing fragments of reset Romanesque masonry (Cameron 2003; O’Grady et al 2014, 14). A double-stepped exterior plinth can be observed around most of the lower course, in addition to blocked possible round-headed window embrasures in the north and south walls (Cameron 2003; O’Grady et al 2014, 14). Reuse of masonry to patch the walls is evident on all elevations, including part of a small rounded-headed window reconstructed on the exterior of the south wall and a broken water stoup on the interior (ibid). The north wall appears most complete with tightly set courses of well-made vertical and horizontal set masonry and minimal mortared joints (O’Grady et al 2014, 14).
Excavations in the 19th century indicated that a rectangular chancel conjoined the east wall (Kerr 1881, 164–5), where there is a tusker stone projecting midway down the wall that may mark the line of the south wall of the chancel (Cameron 2003; O’Grady et al 2014, 14). Of note is Kerr’s account of nine complete burials uncovered beneath the floor of the chancel that were apparently sub-divided between each quadrant, in addition to an exterior cemetery to the S and W of the chancel. From the description of the chancel burials ‘… there were no indications of coffins, but at the head of each thin stones had been placed on either side …’ (Kerr 1881, 164). These match the description of ‘head-support’ or ‘head-box’ burials with stone slabs arranged only around the skulls. Twenty-one examples of ‘head-support’ burials were excavated in the monastic cemetery at Portmohmack and radiocarbon dated to the eighth or 9th century (Carver 2016, 95–6, fig.5.4).
Though we cannot be certain, this may indicate a date range for the burials at the east end of the St Serf’s church.

The church is small and may have functioned as the focus for a shrine and suggests an exclusive place of worship within the monastic settlement. In addition to St Rules Church, St Serf’s is comparable to other early Romanesque churches in Scotland, such as the initial phases at Dunfermline Abbey (Fawcett 2002), the nearby church tower at Markinch displays similar tightly-set ashlar construction (pers comm Bruce Manson), the tower-nave at Dunning and the small 12th-century chapel at Inchmarnock (Lowe 2008, 87). Although Cameron doubted the previous existence of a west tower at the St Serf’s church, this was formerly noted as a possibility by RCAHMS (1933, 305–6). Dixon has made a case for a west porch or tower because the now blocked west arch does not connect properly with the adjoining wall coursing, which suggests a later insertion (O’Grady et al 2014, 14). A considerable mound of rubble is shown in this area in a late 18th-century illustration of the church by James Drummond (Kerr 1881, 164, fig 1). The former existence of a west tower adjoined to the nave at St Serf’s could have implications for the site’s political significance, as similar tower-nave buildings were associated with major royal and religious foundations in Late Anglo-Saxon England, and this may also have influenced politicised church building in parts of eastern Scotland during the early 12th century, where a late 11th-century example has been excavated at Dunfermline Abbey (Fernie 1994, 26; Shapland 2013, 145). This would put St Serf’s within the orbit of English late 11th- / early 12th-century Romanesque architectural influences, though tells us little about the earlier monastic settlement.

**Archaeological investigation 2011–13**

The objectives of the pilot field investigations undertaken during 2011–13 were to characterise the extent of monastic settlement beyond the visible building remains and assess the presence and nature of archaeological remains across the island. Fieldwork on the building remains was limited to non-invasive survey. Two trial excavation trenches were opened in the environs and outside the monastery’s scheduled area: one across an earthwork thought to be a possible fish pond and another across a boundary feature identified by geophysics. The geophysical survey comprised electrical resistance and magnetometry techniques covering most of the SE end of the island in the vicinity of the monastery, in addition to a walkover survey of the whole island.

**Land survey**

The land survey involved a walkover survey across the historic extent of the island that was undertaken by teams of around ten volunteers under supervision of an archaeologist, who recorded features using handheld GPS and proforma. Topographic mapping using a survey grade GPS device was undertaken in 2013 to record features near the monastic buildings and trench locations. Thirty-one surface features were identified by the walkover survey. The majority of these appeared to be post-medieval remains relating to estate land management of the island during the 19th and early 20th century, such as field drains and shooting-hides (O’Grady 2012, 30–2, nos S019, S021, S022, S023, S026, S027, S031). To the NW of the monastery buildings by 63m is a substantial ditch. This extends 70m to the W, is c 10m wide and c 1.5m in depth. What appears to be the same feature was mentioned in 1766 when the poet Michael Bruce noted that ‘… a deep dyke in the form of a trench is cut in the north and east sides of a plain piece of ground’ (Kerr 1881, 168). Bruce also described the remains of a small stone building within the trench conjectured by him to be the remains of a monastic cell. No such structure is now visible. This large section of ditch may be the remains of a late-medieval fishpond associated with the Augustinian priory. A land grant by William Douglas of Loch Leven to Mr John Winrame, prior of St Serf’s Inch, dated 2nd April 1567, records the existence of a fische botte on the island, meaning a ‘fish box’ or a pond for breeding fish to consume (Munro 1994, 89; Morton Papers, GD/150 Box 62, NAS). A cuningar or rabbit warren is also mentioned on the island at the same time (ibid), apparently part of the late-medieval monastic designed landscape.

Eight minor earthwork features were also recorded during the walkover survey at the E end of the island and within a c 200m radius of the monastic buildings. These were poorly defined and affected by animal burrowing, but comprised small turf mounds, low roughly horseshoe-shaped earthworks with central pits, and a possible bank (O’Grady 2012, 30–2, nos S004, S005, S008, S009, S011, S012, S013, S015). The derivation of these earthworks cannot be definitively stated, but possibilities could include a clearance cairn, warren mound, corn-drying kiln, small turf buildings or simply post-medieval quarry pits (Illus 5). Stray finds of medieval pottery sherds were also made along the modern NE shoreline (O’Grady 2012, 30–2, nos S006 and S030). Results from the land survey emphasise that the island contains a palimpsest of surface remains, indicative of several phases of activity and changing use from monastic landscape to post-medieval estate management and recent stewardship.

**Geophysical survey**

Technical details of the survey devices and parameters used during the geophysical survey can be referred to in the data structure reports (O’Grady 2012; 2012a). Two large oval enclosures were mapped. These are apparently centred on the church building and roughly concentric (Illus 5). The largest enclosure
measures approximately 200m x 110m. This looked like a suitable candidate for a large early medieval monastic *vallum*, however excavation of what turned out to be a ditch and bank suggests that this is in fact a medieval field boundary (see below). The S side of this enclosure was not clearly resolved due to geological constraints in this area. A smaller ‘inner’ (the chronological relationship is not certain) enclosure measures approximately 110m x 60m with indications of a possible smaller enclosure adjoining the southern interior and a rectilinear arrangement within the E interior. The NW side of the main ‘inner’ enclosure appears to be interrupted by the N range of the monastic buildings. A strong negative magnetic anomaly on the W side of the N range could be the continuation of the enclosure or the remains of a monastic drain, but a drain might be expected to align on a gradient towards the shoreline. This ‘inner’ enclosure could be part of an early medieval sanctuary boundary, but in the absence of excavation within the scheduled area this at present remains conjectural. In terms of scale, the ‘inner’ enclosure would make St Serf’s comparable with other small monastic sanctuaries such as Inchmarnock, west coast hermitages such as Nave Island, or the combined upper and lower graveyards at St Blanes on the Isle of Bute (see Lowe 2008, 253, fig 9.3 for a useful comparative plan). Such comparators would be in keeping with St Serf’s role as a hermitage and scriptorium (*cf* Hall 2007, 381), perhaps with an important patronised church at the core. Linear anomalies and areas of magnetic disturbance within the enclosures could be remains of prepared surfaces such as paths, small-scale metal-working or zones of occupation, elements known from other monastic sites, though excavation will be required to adequately test these possibilities.

The general outlines and foundation platform for the medieval priory buildings were also traced. Prominent areas of magnetic disturbance around the priory buildings likely indicate a mixture of demolition deposits, perhaps midden deposits and substantial post-medieval disturbance. The location of burials is suggested by a concentration of small globular resistance anomalies S of the monastic buildings, probably part of the wider cemetery truncated by 19th-century excavations around the chapel (see Kerr 1881, 164). An area of pronounced resistance readings surrounding the immediate vicinity of the chapel is more likely to indicate a zone of post-medieval clearance than an enclosure (O’Grady 2012; 2012a).

**Excavation trenches**

A 10m by 1m trench was excavated across the NE side of the ‘outer’ enclosure identified by the geophysics (O’Grady 2012; 2012a; Illus 5, Trench B). This uncovered a ditch 3m wide and 1m deep below the topsoil with a flat bottom (Illus 6 and 7). Successive sand and gravel fills were interpreted as resulting from repeated inundation events and water action from...
Illus 6 Plan of Trench B showing boundary ditch and other cut features.

Illus 7 North-west-facing section of Trench B.
Illus 8 Drawings of finds from excavation at St Serf’s Island in 2011–12. a–c medieval pottery, d crucible fragment, e bell-clasp fragment, f ?knife blade, g whetstone, h flint arrowhead. (Drawn by Laura Fyles)
the adjacent old shoreline to the N side, and on the S erosion of a reduced bank. The ditch was recut on at least two separate occasions and a dump of probable hearth charcoal formed part of the upper fills. Remains of a small gravel bank, which was repaired on at least one occasion, overlay the southern edge of the ditch and three of the earliest fills. Two radiocarbon dates from single entity charcoal samples returned calibrated dates AD 1016 x 1155 cal (95.4% GU26998, species unknown, context 117) and AD 1026 x 1161 cal (95.4% GU45594, alder, lower context 133 associated with recut 135), respectively, though the former date may be diminished in accuracy by the effect of a long-lived wood species.

The majority of ditch fills contained pottery dated from the 12th to 14th century including Scottish White Gritty Ware, Scottish Redwares and Yorkshire Type Wares (Hall 2013; O’Grady 2012; Illus 8). A single rim fragment of crucible ceramic in an upper ditch fill (context 116) and a possible stone mould or whetstone (context 114) suggests there was metal-working occurring on the island during the 13th/14th century (Hall 2013, 1; another unstratified whetstone was also found, see Illus 8, g). The pottery also included a distinctive rim-sherd of unknown derivation from a lower fill (context 134), which Hall suggests may be a Yorkshire Type Ware. This small assemblage is comparable to a collection of 68 pottery sherd dug up at the monastic buildings in 1921 by a visiting scout troupe, though the ditch pottery contains an earlier group of recognisably 12th-century wares (Hall 2013; Simpson 1926).

Burnt animal bone and several highly corroded ferrous objects including a possible knife blade and nails were also recovered from the ditch and adjacent deposits (Greaves 2012; O’Grady 2012). One of the better-preserved metal finds was a fragment of a possible copper-alloy medieval bell-clasp, perhaps associated with religious life at the monastery (Illus 8, e; pers comm Peter Yeoman). Paleoenvironmental assessment of bulk soil samples from the ditch fills identified a small assemblage of charred macroplants, animal bone and charcoal. These included cereal Caryopses of hulled barley (Hordeum vulgare L), barley (Hordeum sp) and oat (Avena sp). Other cultivated crops included flax and cabbage (Brassica sp) seeds and exploitation of wild resources represented by a small group of hazelnut shell fragments. The charcoal indicated the presence of alder (Alnus glutinosa L), birch (Betula sp), hazel (Corylus avellana L) and ash (Fraxinus sp), with alder and birch round-wood fuel debris dominating. Most of the animal bone fragments were too small and in too poor condition to be identified, but there was evidence for pig with other large and small mammals and molluscs, which add to the 1921 finds of oysters, oxen, sheep and fowl bones from the monastery buildings (Robertson 2017; Simpson 1926, 280).

To the SW of the inner edge of the ditch and bank were two features cut into the natural sand and gravel. These included a pit that extended beyond the W trench wall and a possible post-hole truncated by burrowing (Illus 6). Both features are undated, but might suggest occupation and ephemeral building remains on the interior of the boundary ditch, though the chronological relationships between these features has not been established. The possibility of earlier prehistoric activity was also indicated by the discovery of an unstratified Neolithic tanged flint arrowhead (Illus 8, h) and other small flakes of burnt flint and agate. The ditch and bank may have defined the boundary of an in-field that was in use between the 12th and 14th century in association with the Augustinian priory. The boundary may have been intended to act as a flood-defence for the eastern interior of the island (O’Grady 2012; 2012a).

Another slot 8m by 1m was excavated across the S side of the E end of the possible fish pond (Illus 9). This revealed that the feature was man-made, had a flat-bottom, and was purposely widened and recut on at least two occasions. Scottish White Gritty Ware pottery, potentially of 12th-century date was recovered from the in-fill deposits (Hall 2013; O’Grady 2012, 45). Successive peat and sand layers appeared to indicate periods of standing water and wind-blown events. The excavated evidence suggests this feature could be the fish botte referred to on the island in the 1540s, which may have supplied the refectory table of the late-medieval Augustinian conons. This would be an unusual example of such a medieval monastic designed landscape feature north of the Forth.

Discussion

Fieldwork undertaken in 2011–13 was a pilot exercise intended to assess and map archaeology in the environs of the known monastic buildings on St Serf’s Island. In this sense the geophysics, land survey and trial trenching were successful in developing our understanding of the possible enclosures associated with the monastery, indicating activity zoning, agricultural, industrial and designed management of the priory’s immediate landscape (Illus 5). The first evidence for prehistoric activity on the island was also identified by a small lithic assemblage (O’Grady 2012a). Regarding the early medieval status of the monastery and the scale of the church-settlement, the initial indications of a possible small sanctuary enclosure around the church could imply a smaller and modest heretical community. Although of course this remains conjectural, and many questions persist to be answered by future excavation. The possibility of a small vallum is nonetheless an intriguing conclusion given the new possibility of the island monastery’s proximity to another nearby important church at Portmoak. Although awaiting precise dating evidence, the large enclosure recently revealed by geophysics and trenching near Portmoak church, (which survived as the parish church up to 1660) could suggest the presence of a major sister church-settlement. Certainly, this would
make sense in relation to the only early medieval sculpture from the two sites, found at Portmoak church in 1976. Might we be seeing tentative evidence for two paired monastic settlements? This might explain the documentary evidence for the granting of the island to the Culdee and St Serf. The island may have been restricted to the residence of the hermetical community whilst a larger church-settlement existed at Portmoak and perhaps became obscured from the historical record by the 11th–12th century? Could this also imply a landward church-settlement with greater lay presence and a secular political role during the 9th/10th century? Such a dual relationship would reflect the division of other monastic settlements, where hermetical and anchorite communities could be set apart from lay canons and the rest of the monastery. This remains supposition, but the island-monastery and port church-settlement should perhaps be understood as a single unit, a link that may have been severed in the mid-12th century when the Culdee house was dissolved.

The scale of the island-monastery at St Serf’s does not seem comparable to other major early medieval church-settlements in Scotland such as Iona, St Andrews, Fortingall, Portmahomack, Hoddom, Melrose or St Blane, or indeed Irish sites such as Nendrum or Armagh, among others. However, it is clear from the documentary evidence for significant land grants to St Serf’s, and the quality of the Romanesque church erected during the late 11th or early 12th century, that the monastery was favoured as a regionally important church centre. Also of significance for understanding the monastery’s early medieval political function was the continuous promotion of the regional cult of St Serf or St Moachan at the island, by secular elites some of whom were royal between the 8th and 11th century. I would suggest that future avenues for research should explore a wider range of functionalities invested at early medieval monastic centres in Scotland, in terms of overt political and secular interests. There is also a need for further landscape-scale investigations to consider church-settlements in terms of the political organisations of sacred space and the networking of multiple sites across the early medieval landscape. The secular development of regionally important learned and religious centres, of the kind we see at St Serfs, was part of long-term strategies to underpin regional-scale lordship, strategies which perhaps had their roots in 8th- and 9th-century ‘localised’ kingship. Such politicised site functions could of course change and be superseded, as occurred at St Serf’s from the mid-12th century through the interests of wider-reaching governmental power and the reform of monastic and diocesan Church administration.

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Abstract
This article presents the results of field research in the environs of St Serf’s Priory on Loch Leven in Perth and Kinross that took place between 2011–13. Findings are included from geophysical surveys, a walkover survey, the first modern excavations in the monastery’s island-environs, and a topographic and building survey undertaken in collaboration with RCAHMS (HES) in 2013. Finds from two exploratory excavation trenches provide evidence for a field boundary ditch and a possible fish pond associated with the medieval priory. The implications from this pilot research for understanding difference in the layout and political function of early medieval monasteries are considered.

Keywords
Céli Dé
ditch
fish pond
geophysics
monastery
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