AFON ADDA REFURBISHMENT, BANGOR: ARCHAEOLOGICAL EXCAVATION IN THE DEANERY YARD, BANGOR, 2007-8

Publication Report
for CBA Archaeology in Wales

Produced for Natural Resources Wales
By George Smith

GAT Project No. 1876
Report No. 1278
April 2015

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust
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Cover: 13th C enamelled crucifix plaque
from later Medieval yard surface
(scale with cm divisions)

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ARCHAEOLOGICAL EXCAVATION IN THE DEANERY YARD, BANGOR, 2007-8

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SUMMARY

Archaeological work was carried out in conjunction with engineering works by the Environment Agency (now part of Natural Resources Wales) to provide flood control of the Afon Adda, a small river that runs through Bangor within culverts. The archaeological work comprised watching briefs and, in one place, excavation of the route of a new culverted diversion of the river, through the Cathedral and Deanery yards. The watching briefs produced only minor new information. The excavation in the Deanery yard recorded three main phases of activity interspersed with gradual soil accumulations. The earliest deposits incorporated burnt stones and evidence of cooking and butchery, radiocarbon dated to the early 12th century AD, probably associated with building works for the first stone cathedral, begun in 1120 AD. The next later phase included a later medieval boundary wall of the Deanery with an associated yard surface on which was evidence of demolition or destruction close by, possibly associated with Owain Glyndwr's sacking of the cathedral in 1402.The latest phase of activity was represented by the walls of part of two successive coach-houses, the first 17-18th century and the second mid 19th century.

INTRODUCTION

Bangor was first established as an ecclesiastical community in the 6th century AD, occupying a small, enclosed valley and the stream that flowed through it, the Afon Adda, was a key part of it. This land was reputedly a gift of Maelgwn, the ruler of Gwynedd in the early 6th century AD, to the Church. The presence of an early ecclesiastical settlement at Bangor is affirmed by a note in the Irish Annals of the sack of the Bangor monastery in AD 632. This original settlement would have been focussed on a chapel within an enclosure, from which the town takes its name – Ban chor, derived from a word for the top rail of a wattle fence (Longley 1995, 52), as similarly was the case for the ecclesiastical settlements of Bangor-on-Dee (Wrexham) and Bangor, County Down, Northern Ireland. White (1984) and Longley (1994) have argued that this early enclosure may have been the same as an oval area that was still the focus of the town on Speed's map of the town in 1610 (Fig. 3), and preserved in the modern street pattern (Fig. 1). The area alongside the Adda would have been a focus for settlement and the road Glanrafon probably continues the line of a Medieval road crossing the river by a ford or bridge. Excavations north of the High Street and east of the cathedral between 1981-9 identified several early boundaries, the earliest a curvilinear 'slot' just east of the cathedral, dated to between the 6th to 8th centuries AD and suggested to be part of the earliest ecclesiastical enclosure ((Longley 1995, 56). Numerous early graves were also recorded further east, some of which predated a rectilinear boundary ditch dated to the mid 10th century (*ibid* 65). Six carved stone fragments have also been found in the area of the cathedral with ornament of 10th or 11th century style (Edwards 2006). The first stone cathedral was begun about 1120 but some pre-12th century buildings are recorded as having survived until at least the late 13th century (Soulsby 1983, 76). The proposal to cut a new culvert across the Cathedral and Deanery yards meant an impact on an area that had not previously been investigated, an area that could reveal Medieval buildings, including the Medieval Deanery thought to have once existed alongside Glanrafon. Elsewhere the re-culverting might reveal evidence about other historic features including a possible Medieval water mill by Glanrafon and a Medieval Friary close to the coast edge at the north (Fig. 1).

The archaeological desk-top evaluation and fieldwork was carried out at the request of the Environment Agency as mitigation in advance of flood control works along the Afon Adda. Most of this followed the route of the existing culvert and was monitored by watching briefs. The work in the Cathedral and Deanery yards was designed to provide a total 'preservation by record' of the new culvert trench, which was first evaluated by trial excavation followed by full excavation in 2007, the results of which, along with information derived from the specialist reports by Carrott, Jaques, Jenkins and Schmidl, are summarized here. The full record of the work and the complete specialist reports are presented in an in-house report (Smith, *et al* 2013).

Acknowledgements. The work was carried out by the author with Robert Evans and John A. Roberts, both of Gwynedd Archaeological Trust (GAT). Thanks go to Terry Williams and Bryan Precious for

excavation assistance and to David Price and David Longley for historical information. The work was managed by Andrew Davidson of GAT and monitored by Ed Wilson of the Environment Agency. Thanks go also to the then Dean of Bangor, the Very Reverend Alun Hawkins and to the cathedral administrator Martin Brown for allowing the work. Thanks go also the project manager for the Environment Agency, Katherine Morrison and to the staff of the construction company, May Gurney Ltd. The archive of paper records, drawings, photographs and digital data will be stored at Gwynedd Archaeological Trust. The artefacts will be stored at Gwynedd Museum and Art Gallery, Bangor.

TOPOGRAPHY

Bangor lies within a narrow steep-sided valley that is a glacially worn trough along a line of weak Ordovician shales between two ridges of harder Lower Cambrian rock. This forms part of the Bangor Ridge which runs as far as Caernarfon to the south (Smith and George 1961). A small stream, the Afon Adda, only 4km in length, runs along the valley from south to north, exiting into the sea close to the entrance to the Menai Strait (Fig. 1). The glacially deepened valley appears to have been estuarine during the Late Glacial and contains over 2.6m depth of alluvial silts and estuarine clay deposits and no underlying hard rock geology was observed during the present excavation.

EXCAVATION RESULTS

The deposits within the northern yard were shallow and exposed only remnants of the 19th century Deanery formal garden. At the junction with the Bishop's Walk path (Fig. 1) the trench exposed part of the early 19th century brick-arched river culvert, which was then still in use. Further south through the yard deeper deposits were uncovered, the deepest, in trenches 2, 5 and 6, reaching a depth of -2.40m below surface (BS), providing the most useful stratigraphy, in which six phases were identified, described here, excluding 20th century structures.

Phase 6 included the remains of a mid-19th century stone-walled coach house demolished during the early 20th century but belonging to a renovation of the Deanery carried out in 1863. The rear wall of the coaccch house incorporated a re-used lintel stone bearing a date of 1597 and the initials HR (Fig. 4).

Phase 5. The 1863 coach house had been built over the demolished remains of an earlier coach house that lay further to the south-east on a slightly different alignment, which entailed also the re-building of the boundary wall. The date of construction of this earlier coach house is not certain but was probably built to accompany the Deanery that was rebuilt in 1685 (Willis 1721, 41). This was clearly well constructed with stone-built culverts taking water from the yard beneath the boundary wall at the west The rubbish deposits in the yard relating to this period included pieces of wine bottle, clay tobacco pipes, animal bones, a small bronze buckle of ecclesiastical style but relatively few pieces of pottery. This was mainly of 17th century and later type including storage vessels and domestic tableware apart from one fragment of a large decorative German beer tankard, perhaps a souvenir or gift, although these wares were relatively common imports at this time (Edwards below and Fig 6).

Phase 4. The excavation trench exposed a substantial, free-standing wall (48) that must have formed the boundary of the Deanery in this period. During the period of neglect after Dean Rowlands' improvements to the Deanery a deep layer of humic soil built up beyond this boundary wall, presumably of rubbish from the Deanery. This soil contained a variety of pottery fragments some of which were Continental imports, indicative of high status, of 15-16th century date, including French, Spanish and Rhenish wares. Animal bone from the soil was mainly of sheep with smaller amounts of cattle and pig but including evidence of a varied diet including roe deer and chicken as well as herring, flat fish, oyster, cockle and winkle. Bones of domestic dog and cat were also found.

Phase 3 (Fig. 3A). The soil accumulation of Phase 4 overlay some fragmentary earlier structures, notably the footings of a wall (654) that was probably the predecessor of wall 48, the western boundary of the Deanery in Phase 4. The earlier wall was associated with an external surface of small compacted stones, within which was a stone slab-covered drain. On this external surface was a discrete, thin layer that

included patches of burnt deposited material. The layer also included one significant find, an enamelled gilt copper alloy decorative plaque (RF5, Redknap, below). Plant remains form this period included some grains of wheat and barley and of corn marigold a weed of cultivation. Animal bone showed a rather different diet to that in Phase 4, the assemblage dominated by cattle, with lesser amounts of sheep, goat and pig with a few bones of horse, roe deer and goose. Marine shells were, again of oyster, cockle and winkle. The few pieces of pottery included a variety of wares from the 13th to early 18th century, indicating considerable contamination (Edwards, below).

The excavated trench, by chance, coincided with the line of the Medieval Deanery boundary side wall and so did not reveal any part of the early Deanery itself but its proximity was indicated by the presence of some fragments of mid-13th century pottery (probably associated with construction of the first boundary wall) and of one piece of imported French ware of the same period.

Phases 1 and 2. The first boundary wall and the yard floor were founded over a grey-coloured deep silty deposit (548) that was fairly homogeneous over a considerable area and sterile in that it lacked any artefacts, such as pottery. However, the deposit did contain fragments of wood charcoal and other plant remains, and further north-east included numerous pieces of shattered burnt stone and some fragments of burnt animal bone (Fig. 3, layer 545). The bones were, like those in phase 3, mainly from cattle but with some sheep, pig and goat and interpreted mainly as waste resulting from primary butchery (largely head and hooves) with some evidence of domestic food use (Jaques *et al*, 2013). Plant remains from the deposit also included a few cereal grains of barley, a fruit stone as well as hazel nut shell (*ibid*). The wood charcoal comprised oak, alder, hazel and poplar or willow ((*ibid*), best interpreted as firewood.

There was a general lack of artefacts in the soils that accumulated before the construction of the first yard surface of Phase 3, suggesting that there had been no buildings in the vicinity. It is difficult to interpret the earliest widespread layers containing burnt stone and animal bone but they seem likely to be the product of fairly large scale activities. This happened prior to the first structures and floors, which were suggested, above, to be before 1402 and possibly as early as mid 13th century. Two radiocarbon dates were obtained from charcoal from the burnt stone layers 545 and 548 in Trench 2. A charred hazel nut shell from Layer 545 produced a Conventional radiocarbon age of 920 +/- 40 BP (Beta–255302**),** 2 SD Cal AD 1020 to 1210. A charred twig of hazel/poplar from layer 548 produced a Conventional radiocarbon age of 930 +/- 40 BP (Beta–255303), 2 SD Cal AD 1020 to 1210.

The burnt stone layers directly overlay natural glacial silt deposits at a depth of about -2.4m below surface and these sloped down to the west, probably being close to the contemporary river bank.

ARTEFACTS

Architectural Fragments

A broken door lintel, smooth dressed overall to produce raised relief lettering was found upside down, re-used in a wall the 19th century coach house (Fig. 4). The lettering, of '*1597'* over the initials 'H R' divided by a four-pointed star had been preserved under later rendering. The date and initials refer to Henry Rowlands, who was Dean from 1593-7 and Bishop from 1598-1616. Dean Rowlands was a generous benefactor, re-roofing the cathedral choir (Storer 1818). He is not recorded as having re-built the Deanery but may well have carried out improvements, which this stone probably commemorated, perhaps over a front porch.

Iron

Several iron objects were recovered from Phases 3-6. They were all heavily corroded and were radiographed by Philip Parkes at Cardiff University from which basic identifications were made. They consisted mainly of timber and wall nails but two pony shoes came from Phase 3. None were of significance in terms of type or context and none were selected for illustration.

Copper Alloy

One small strap buckle came from a rubbish-rich soil of Phase 6. The few other pieces were small fragments of strengthening plates, probably from boxes. Only one significant piece was found, an enamelled, gilt copper-alloy plaque (RF5), described below, which came from a thin deposit on top of the earliest cobbled yard surface of Phase 3 (Fig. 3B).

A Romanesque Enamelled Plaque from Bangor Deanery (Fig. 5)
By Dr Mark Redknap

The plaque has the form of a T-shaped terminal depicting a lion (for St Mark the Evangelist). There are four holes for gilded, dome-headed rivets that originally attached the plaque to the arm of a cross (left arm as viewed). The lion's mane is denoted by a series of engraved Vs. The enamel is poorly preserved, but the background appears to be light blue (cobalt), with a pale cream for the border, probably a degraded enamel. Raised gilt champlevé lenticular devices divide the background panels into smaller units, providing a combination of decoration and assistance in the enamel adhesion. The lion's nimbus has concentric bands of enamel within a gilded copper-alloy border. The inner band of enamel of the nimbus is green with three red pellets to top and sides of the head; the outer band is now a pale enamel (possibly a degraded yellow). Each wing has two inner engraved lines denoting feathers. There is a square of light (pale blue?) enamel bottom left of the lion, with vertical gilt bar set in the centre – which could represent St Mark's book. The plaque measures 59mm in height, 36.7mm in width, and 2mm in thickness. The arm of the cross was 38.5mm in width.

The gilding is poorly preserved, surviving in good condition within engraved lines, and under rivet heads. The plaque has been bent, perhaps when detached from its cross.

Discussion

The plaque would have adorned the back of the cross (the front often being reserved for three-dimensional representations of the Evangelists or SS Mary and John).

Compositional analysis of the enamel by Ian Freestone and Phil Parkes (see below) suggests that the glass 'is no earlier than AD 1200, and possibly closer to AD 1250', and that this glass corresponds well to enamels produced in Limoges. Nimbi with similar concentric bands of enamel are common (e.g. Gaborit 1995, p. 43).

Medieval Limoges enamelwork has been extensively published (e.g. Rupin 1890; Marquet de Vasselot 1941; Gauthier 1987). At first sight, the eroded plaque appeared to depict the eagle of St John the Baptist, but this Evangelist is most frequently positioned at the top of the cross (e.g. cross from Menussac, Haut-Vienne, France: Thoby 1953, pl. 30, no. 61 and one in the Walters Art Gallery, Baltimore, no. 44108: Thoby 1953, pl. 41, no. 90). One in the Walters Art Gallery, Baltimore, with half-figure evangelists, has the eagle on the left (Thoby 1953, no. 79). The position on the left arm is usually reserved for the lion of St Mark, as in this case (e.g. Rupin 1890, fig. 334). A similar half-figure lion with lenticular inserts in background occurs on a Limoges cross in the National Museum Zurich dated about 1200 (LM11220). For a cross with similar plaques from Jouac, Haut Vienne, France, see Arminjon *et al* 1995, 75.

Romanesque enamelled metalwork has been recorded from a number of sites in Wales, including an early thirteenth-century *corpus* of Christ from Criccieth Castle, found 'in a very burnt and corroded condition in a layer of burnt material in the base of the western tower of the inner gatehouse' (NMW 35.289; Ormesby-Gore 1935, 358-9; O'Neil 1944, 38). A similar plaque depicting the eagle of John the Evangelist, one of six elements from a Romanesque cross brought to the National Museum Wales for identification in 2003 and thought to come from a site in south Wales, has a nimbus in red (centre), green and yellow (outer) enamel, and measures 51mm in height, with a maximum width of 61mm. A gilt copper-alloy T-shaped enamelled mount from the terminal of a cross arm depicting the eagle symbol for St John the Evangelist has also been found at Montgomery Castle (Knight 1993, 191). The swept back wings are typical of late twelfth-century examples (e.g. Metropolitan Museum of Art 1996, cat. no. 63b, *ca*. 1185-95), and the Montgomery example may be late twelfth or early thirteenth century in date.

The Bangor find is a welcome addition to the Corpus of Romanesque enamels, providing a further glimpse of the polychrome fittings that once adorned cathedrals and churches in Wales.

Enamel analysis of the Romanesque plaque from Bangor Deanery
By Prof Ian Freestone and Philip Parkes
A small sample of the pale blue enamel which came loose during cleaning (from the area just above the bottom left hole, *Figure 3*) was mounted in epoxy resin and polished so that it could be analyzed. Analysis was carried out using a CamScan Maxim 2040 scanning electron microscope with an Oxford Link ISIS energy dispersive x-ray analyzer (EDS).

Table of results:

		Compound %
Sodium	Na_2O	11.8
Magnesium	MgO	2.7
Aluminium	Al_2O_3	0.7
Silicon	SiO_2	48.3
Sulphur	SO_3	0.5
Potassium	K_2O	1.2
Calcium	CaO	4.6
Manganese	MnO	0.3
Iron	Fe_2O_3	1.6
Cobalt	CoO	0.2
Copper	CuO	0.2
Tin	SnO_2	8.4
Antimony	Sb_2O_3	1.1
Lead	PbO	18.4

From the results above the glass is likely to be no earlier than 1200. Before this northern European enamels had antimony-based opacifiers and were low potash, low magnesia (both below 1%). A study of Limoges enamels (Biron, Dandridge, Wypyski and Vandevyver, 1996) indicates that enamel compositions fall into two groups that divide roughly before and after the beginning of the thirteenth century. The high levels of tin (over 8%) in this sample would suggest that the enamel falls into the late-type enamel group, dating from about the second quarter of the thirteenth century and later. The enamel is a light blue colour and has low copper but over 1% Fe_2O_3. On this basis it corresponds very well to the cobalt coloured blue glasses that were analyzed.

Overall this enamel corresponds very well to the enamel produced in Limoges from approximately the second quarter of the thirteenth century.

Medieval and Post-medieval pottery (Fig. 6)
By Julie E C Edwards
Pottery from Phases 3 to Phase 5 was sent for recording and analysis, totalling 274 fragments, 4022 g. This report summarizes and discusses the range of material within phase groups; details of individual contexts and sherds are recorded in the archive.

Methodology
The pottery was recorded in context groups by ware and when possible form in accordance with MPRG minimum standards (MPRG 2001); quantification was carried out using sherd count and weight. The terms used to identify wares are those employed in the Chester City Council Archaeological Service fabric reference collection modified for the post-medieval wares with terms recommended by the Potteries Museum during an English Heritage sponsored training course in 1999. The pottery data has been entered into an Access database.

Condition
The assemblage is very fragmentary, sherd size is not large and levels of abrasion vary throughout the assemblage with some sherds being in poor condition whilst others are relatively good. There are no complete vessels nor can any complete or partially complete vessels be reconstructed from the fragments. Many vessels are only represented by single body sherds and their form cannot be determined. The majority of the context groups contain less than 18 sherds and within that the majority have three or less, however three groups (532), (648) and (655) in phase 4 are comparatively large, containing 34, 42 and 30 sherds respectively.

Phase 1-2
A small abraded fragment (19 g) of ceramic building material, probably a piece of post-medieval brick was the only ceramic find in this phase and is presumably intrusive.

Phase 3
A total of 22 sherds (265 g) were found in contexts (534), (540), (656), (669) and (668). These sherds are mixed in date and span the thirteenth to the late seventeenth/early eighteenth centuries.
Two pieces of medieval pottery (52 g) were found in contexts (543), a layer of silty clay and (669) in Phase 3A2 associated with the construction of the first boundary wall. Both are fragments from the thumbed bases of jugs made in a Cheshire-type red/grey ware which on the basis of finds from North Wales castle sites, notably Dyserth and Deganwy, was in use from c.1250 (Talbot 1977; Hewitt and Morgan 1977) and possibly until sometime in the first half of the fourteenth century.
The remaining contexts, including (668) in Phase 3A1, produced post-medieval wares including fragments of a sixteenth century French chafing dish, SF10 described below. Context (540) produced the largest assemblage consisting of fragments of blackwares, yellow wares and brown-glazed wares of seventeenth century date; drinking vessels and a jar are the principal vessels that can be identified. Fragments of relief moulded slipware dishes date to the second half of the seventeenth century and a piece of mottled ware is from the late seventeenth or eighteenth century. A small abraded fragment of North Devon gravel-tempered ware appears to be part of a colander. In addition to pottery fragments of clay tobacco pipe stem and the rim of a late eighteenth or early nineteenth century glass bottle were found in context (540).

> **SF 10** (534) Saintonge chafing dish. Knob from a type 1 chafing dish dated 1500-1600 (Hurst et al 1986). These dishes are decorated with a moulded face mask applied below each knob, often with poorly defined features as on this example. The knobs are alternatively glazed yellow/ orange and green around the vessel. This fragment is clear glazed (yellow) but an area of green glaze can be seen on the broken edge. Additional decoration is provided by short lines of comb stabbing set at angles to the rim. On the interior behind the mask three perforations are visible from where wooden pins were used to hold the mask in place during firing.

Phase 3-4
Thirteen fragments (236 g) of pottery were found in contexts (645), (646),(733) and (742) all are post-medieval apart from a single sherd of a Saintonge jug in (742) dating from the mid-thirteenth century. The fragment is from the base and lower body of a jug and the remains of combed decoration can be seen on the broken edge, applied strip decoration is more common on Saintonge jugs but combing is known (Brown 2002, 26). The post-medieval wares range in date from the mid-seventeenth to eighteenth century and comprise trailed slipware dishes, blackwares, brown-glazed wares and tin-glazed ware. A small fragment of clay tobacco pipe stem and a piece from a glass wine bottle dating from the mid-seventeenth century are also present.

Phase 4
As might be expected the rubbish rich soil deposits below the cobbled yard produced the largest assemblage of pottery from the excavations totalling 159 fragments (2004 g). The deposits contained material that is mixed in date with fragments from a wide range of wares spanning the medieval and post-medieval periods. The stratigraphy does not appear to represent a chronological sequence of events and

the pottery suggests that the phase consists of re-deposited soils rather than any primary deposits of rubbish.
Medieval wares consist of Cheshire-type red/grey wares as well as late medieval and transitional wares from the Ewloe and Buckley area of north-east Wales, absent are medieval imported wares from beyond the North Wales/Cheshire region, however, some examples of these have been noted from deposits elsewhere on the site. A small fragment of medieval floor-tile without any visible decoration was also found in (532).
The post-medieval wares are those that could be expected from a relatively prosperous urban site of the period, parallels can be drawn with assemblages from urban and high status sites on Anglesey e.g. Beaumaris (Smith and Edwards 1996) as well as Chester. A range of utilitarian storage and cooking wares as well as those designed specifically for use at table are present and include jars, dishes, cups, mugs, jugs, bowls, chafing dish fragments and also flowerpot and chimney pot fragments.
A small group of sixteenth century wares can be identified which include: Cistercian-type wares, Midland Purple-type wares, Cologne stoneware, a handle fragment from a Saintonge ware jug, Beauvais ware, a Spanish lustreware and a possible Continental stove tile; whilst Continental imports have been recorded in small numbers from a variety of sites in North Wales (Campbell 1993; Smith and Edwards 1996) the latter two are not common. The assemblage is very fragmentary and sherds are often featureless body sherds but some pieces have features worthy of illustration and are discussed individually below. Whilst several of these sixteenth century wares were found in (532) and were accompanied by other potentially contemporary wares such as transitional Ewloe type wares, Cistercian-type wares and Midland Purple-types, including chafing dishes and jars, later seventeenth, eighteenth and nineteenth century wares were also present in the context as well as later post-medieval glass wine bottle fragments and clay tobacco pipe fragments. Brick fragments also from context (525) are possibly frame moulded rather than stock moulded and potentially date to the earlier rather than later post-medieval period.
The seventeenth century and later wares include blackwares, mottled wares, yellow wares, and a variety of slipwares corresponding to types that in Chester are common components of ceramic assemblages in the mid-late seventeenth century, with some continuing into the eighteenth. Lesser amounts of tin-glazed earthenwares, North Devon wares and a fragment of an early English stoneware mug of late seventeenth or early eighteenth century date are also present. Eighteenth century fine tablewares are represented by white salt–glazed stonewares (including a scratch blue fragment), Whieldon-type ware and tin-glazed ware. Fragments of transfer-printed wares, whitewares and a stoneware sewer or drain pipe fragment are nineteenth or twentieth century in date. Wine bottle glass varying in date from the late seventeenth to the late eighteenth or nineteenth century is also present in this phase as well as fragments of clay tobacco pipe stems.

SF8 Tr 2 (532) a fragment from a ceramic plaque, 36 mm wide and varying in thickness from 4 mm at the sides to 6 mm at the centre and broken at each end. The surface has part of a relief moulded figure depicting the upper body of a man dressed in clothes in the style of the late fifteenth and sixteenth century. The right hand holds an upward pointing short sword or dagger, what appears to be a heavy neck chain hangs low over the chest. The figure is bordered by columns which may have formed an arcade framing the figure. A curved band, from which there appears to hang a pendant decoration, frames the lower edge. Just to the left of the pendant a small hole pierces the thickness of the piece from the front to the back; this is possibly where a wooden pin held the moulding in place during firing, a method used for the applied masks on French chafing dishes (Hurst et al 1986, 78-80). The reverse of the piece has been smoothed flat, the sides knife trimmed and a shallow rebate runs along each side.
The plaque is made from a fine buff firing clay that has sparse fine red iron oxide inclusions and fine pink stained quartz. A clear (yellow) glaze covers the surface, traces of which are also present on one of the sides.
The style and subject of the decoration is comparable to Rhenish stonewares of the sixteenth and early seventeenth century. It is possible that this is a fragment of an earthenware vessel copying a stoneware but the piece is totally flat which rules out a mug or jug, the most common forms. Alternatively the piece may be from a more complexly constructed vessel such as a pedestal salt or French chafing dish. No parallel has been found for a salt and the decoration is possibly too fine to be a French chafing dish although that does not rule out a French, possibly Beauvais, origin.

SF11 (532) Spanish lustreware. A fragment of a dish with a simple rounded rim that has been slightly thinned creating a shallow rebate around the edge of the vessel. A series of petal or tear-drop shapes, arranged in lines, stand out in relief on the surface of the dish outlined by broad incised lines. Both surfaces are covered by a white tin-glaze the original surface of which has decayed and largely worn away, save for small areas of discoloured brown, leaving a matt pitted surface; within these brown patches on the back two spots of the original lustre decoration can be detected. The use of incised line decoration can be paralleled on vessels ascribed to Valencia found at various sites including Southampton (Brown 2002, 71 fig 33.347) and Chester (Edwards 2008, 200 Ill 5.5.4.30) as well as vessels surviving in collections (Wilson 1995, 348 fig 28.8). Valencian lustrewares are a well-known import to Britain and whilst a variety of Sevillian wares were also imported Sevillian lustrewares were not thought to have been amongst them. However Sevillian lustrewares have been found amongst the cargo of the Studland Bay wreck and have prompted a reassessment of some of the lustrewares found in Britain (Gutiérrez 2003, 24 and 34). Amongst these lustrewares on the ship were dishes with a similar incised line decoration to this example from Bangor (Gutiérrez 2003, 31 fig 8 1-3); it is possible therefore that this dish may be an example of Sevillian lustreware rather than Valencian (pers. comm. Alejandra Gutiérrez) although chemical analysis would be required to confirm this attribution.

SF12 (532) Beauvais dish fragment with a copper green glaze and wavy combed lines around the rim flange. Two sherds from similarly decorated dishes but probably not the same vessels were found in the same context. Beauvais earthenwares were made in northern France in the late fifteenth and sixteenth centuries and particularly in the first half of the sixteenth century (Hurst et al 1986, 106).

SF13 (532) Cistercian type ware cup; five joining fragments form part of the rim of a Cistercian-type ware cup with a red fabric and a brown glaze. A raised cordon marks a carination where the flaring vessel wall turns upwards to an almost vertical rim. Similar vessels have been found in sixteenth century contexts in Chester; the place of production is currently unknown but they differ from types produced in Yorkshire and a location in the north-west is possible (Edwards 2008, 192-193).

SF14 (539) Cologne stoneware mug; part of the rim of a mug with sprig moulded decoration on the neck. These mugs were commonly decorated around the body with trailing rose and foliage or acorn and foliage moulded designs; they are dated 1500-1550 (Hurst et al 1986, 209) although examples in Southampton have been found in late fifteenth- early sixteenth century deposits (Brown 2002, 85). Examples are quite widespread throughout Britain. This fragment has a gouge in the clay on the inside of the rim that extends into the rim edge, this occurred before firing as it is covered by glaze; it would therefore be termed a second today but the fault was either not noticed or still thought acceptable for export.

Phase 5

Pottery from this phase consists of 33 fragments, (721 g), the phase includes two sub-phases A and B. Phase 5A produced 27 sherds of pottery (445 g) whilst a smaller assemblage, four sherds (243 g) were retrieved from 5B.

In similarity to Phase 4, Phase 5A contains a range of post-medieval wares although they tend to consist of seventeenth century and later wares; there is only one small fragment of Cistercian ware and no medieval wares. Blackwares of seventeenth to possible nineteenth century date predominate, many of these are represented by undiagnostic fragments but when forms can be identified they are largely storage vessels but a cup is also present. Other wares consist of tablewares such as nineteenth to twentieth century transfer printed wares, creamware, late seventeenth or eighteenth century tin-glazed ware, Chinese porcelain and an eighteenth century white salt-glazed stoneware with painted decoration.

Eighteenth and nineteenth century stonewares, late seventeenth century to eighteenth century mottled wares and seventeenth century North Devon gravel-free ware were also found. Clay tobacco pipe

fragments include part of an eighteenth century bowl and bottle glass fragments dating to the late eighteenth or nineteenth century.
Phase 5B contains seventeenth/eighteenth century blackwares late seventeenth – eighteenth century mottled ware and Westerwald stoneware (see SF9 below).

> **SF9** (43) Westerwald stoneware mug decorated in cobalt blue and manganese purple, late 17th – 18th century.

Discussion
The assemblage as a whole is relatively small and clearly very mixed with a high level of residuality and potentially some intrusive material as well, although the latter would be hard to identify. The highly fragmented condition of the pottery could suggest that it does not necessarily originate from structures on the site; this detracts from its potential to draw conclusions on the nature of the occupation on the site or any socio-economic changes over time. However the assemblage has some importance, along with pottery from previous excavations at the Bishops Palace (Edwards 2005) it adds to a slowly growing body of material from Bangor for the medieval and early post-medieval periods that increases knowledge of the range of pottery in use and pottery use in general. It provides further comparative material for studies of pottery distribution and use in an area of Wales where questions have been posed regarding the tradition of pottery use and its relationship to economic conditions and cultural influences (see Campbell 1993). Whilst it is difficult to precisely identify the original owners and users of this pottery the range of material represented compares well with that in the larger assemblages from the sixteenth century and later periods excavated in Chester (see Edwards 2008). Thus the types of pottery from the site are comparable to assemblages from an urban centre where individuals had access to a wide variety of traded goods and to people who had links with the networks of trade, status and authority**.** The range of wares is also comparable to the smaller group of pottery from the Bishop's Palace, Bangor and to material from other urban and high status sites in North Wales e.g. Beaumaris (Smith and Edwards 1996) and various North Wales castle excavations.
When the site's position within the ecclesiastical precinct and the close proximity of the Bishop's Palace and Deanery are considered the sixteenth century wares may well have originated from these high status households, which potentially would have been well-equipped. The Spanish lustreware dish when new would have been an attractive object particularly when compared to the British produced wares of the sixteenth century. It would have befitted a household of status such as that of the Bishop or Dean, where the occupants would have access directly or indirectly to trading networks and influences from the Continent. Similarly the eighteenth century fine tablewares and post-medieval wine bottles are such as would befit a prosperous urban or high status household.
The majority of the other wares are common types in the post-medieval period produced in the North West of England, the Midlands and in North Wales; a smaller number were produced elsewhere in Britain for example North Devon gravel free wares, tin-glazed wares from London or Bristol and a single sherd of Surrey-Hampshire Border ware. The utilitarian wares and the nineteenth century tablewares are those that would have been in general use and would have furnished the kitchens and households of the rich and poor. However how far distribution of early post-medieval pottery in North Wales was affected by wealth and status is unclear and any consideration would have to take into account the findings at Brenig Hafod where a relatively large assemblage was recovered including a fragment of Spanish tin-glaze ware from a relatively low status site (Greene 1977). Further assemblages from the city are required to determine to what extent this assemblage from the ecclesiastical precinct may differ from the pottery available to the other inhabitants of the city.

CONCLUSIONS

The excavations have provided evidence relating to the cathedral and Deanery as far back as the 12th century AD but not to the earliest period of ecclesiastical settlement in the valley. The lowest layers incorporating burnt stones and burnt bones produced two radiocarbon dates centred on AD 1120. This date coincides with the consecration of Bishop David in 1120, who then initiated construction of the first stone cathedral at Bangor (Carr 1994, 28). There are some 12th century features still surviving within the present building (RCAHMW 1960, 1-4). The burnt bones within these layers had evidence of butchery

and it is possible that these layers derived from extensive cooking for the work force associated with the construction work. At that time the river would have occupied a natural channel meandering past the slight promontory on which the cathedral is set. Part of this channel was exposed in 2007 at the north side of Trench 7 in the Bishop's Walk. The buried channel had also been recorded during earlier archaeological work at the south side of the Bishop's Palace (Johnstone 2000) and excavations there in 2004, demonstrated that marshy conditions once existed on the valley floor (Smith 2005). The construction of the first Bishop's Palace seems to have begun at about the same time as the construction of the cathedral because two large timber piles were found in 2000, which appeared to have been put in place to consolidate the ground for the palace construction or possibly to provide a buttress for a timber bridge to connect the palace to the cathedral. These timbers were dated by their tree rings as having been cut down in the late summer or winter of AD 1120-1121, corresponding with the dates from the burnt stone layers of Phase 1 at the Deanery.

The middle period represented by Phase 3 should be associated with the Medieval Deanery, which is likely to be one of the buildings shown in a stylized way on Speed's map of 1610 (Fig. 2). A survey made of the building still extant in 1649 described it as '… an old ruinous house and therein a 100 yards of wainscote, the house ready to fall as also the outhouses, with a little garden plot.' (NLW B/Misc Vols/23, 163). The presence of so much 'wainscote' panelling shows that the house was of high quality. One significant object was found on the yard floor of this phase, an enamelled decorative plaque of French manufacture of the first half of the 13th century AD and part of a wooden altar crucifix (Redknap. above). Such an object may have been a gift from the ruler of Gwynedd at that time, Llywelyn ap Iorwerth. However, the discard of such a fine item on the floor of a yard and associated with burnt material suggests some traumatic event. The layer had no other objects that could help to date the deposition although a few pieces of pottery of 13th century date were recovered elsewhere on the site. Such a fine object seems unlikely to have been discarded as rubbish so one possibility is that the burnt deposit belonged to depredations in 1402 by Owain Glyndwr who partly destroyed the cathedral and probably the houses of the cathedral clergy (Pryce 1923). After Glyndwr's raid the cathedral was described as lying in ruins until about 1496 when Bishop Henry Dean funded many new works (Storer 1818).

The Adda river, although historically central to the Medieval development of Bangor, only acquired its present name in the early 19th century, probably from a farm called Cae Mab-Adda, situated close to its source. Before that time the river was known as Toronnen, Teranon or Tarannon. The diary of the travels of John Leland, 1536-1539, after describing Abergwyngregyn says '…an Bangor almost a mile above it. It stondeth on Toronnen' (Toulmin Smith 1906, 85). The name Toronnen or versions of it are also mentioned in documents of the Penrhyn Estate as early as the 15th century. There is another river of the same name in Montgomeryshire, a name, like the River Trent, believed to derive from a Celtic name Trisonante or Tarente, probably meaning 'The Trespasser', implying a river that occasionally overflows its banks (Pierce and Roberts 1999, 9). The early city of Bangor stayed on the higher ground to the south-east, where the cathedral was built. Although close to the river the settlement depended on a drinking water supply from a well, known as St Deiniol's well (Fig. 1), now built over. However, probably as early as the 12th century the bishops' palace was built on the valley floor on the north bank of the river, implying that efforts had been made to control the river by that time.

The river took the effluents of a tannery, dye house and slaughter house at Glanrafon in the mid-19th century in addition to its use as an open sewer. The river flooded the lower-lying areas of Bangor at Hirael and Dean Street at various times through the 19th and early 20th century. The Adda was once tidal at least as far as Dean Street, and there was a 'lake' or pool known as Brochllyn ('Storm lake'), below Glynne Road, close to the Friary (Price Davies 1939). Price Davies also reported that 'during the last half century a ship in a gale was driven up as far as the electricity works …', i.e. as far as Dean Street (Fig. 1). As Bangor expanded rapidly in the early 19th century new houses were built on formerly open marshy land close to the river near Dean Street, unfortunately without the benefit of proper drainage. Flooding caused serious problems and in the mid 19th century epidemics of cholera led to the construction of a piped water supply and later of a public sewerage system. The Adda itself must have remained a foul stream and in 1900 caused Bishop Watkin Williams (1899-1925) to sell the Bishop's Palace and to move to a new house by the Menai Strait. A new free library was built close to the old Bishop's Palace in 1907 and

flooding there destroyed many items in storage for a proposed museum. The continued flooding in the 1920's caused many of the terraced houses in the Dean Street area to be condemned and the inhabitants moved to new council houses south of the railway station. Similar problems continued to occur up to the recent flood control works and the river, now entirely below ground, is forgotten except for a new footpath, the Lon Adda, which follows its route.

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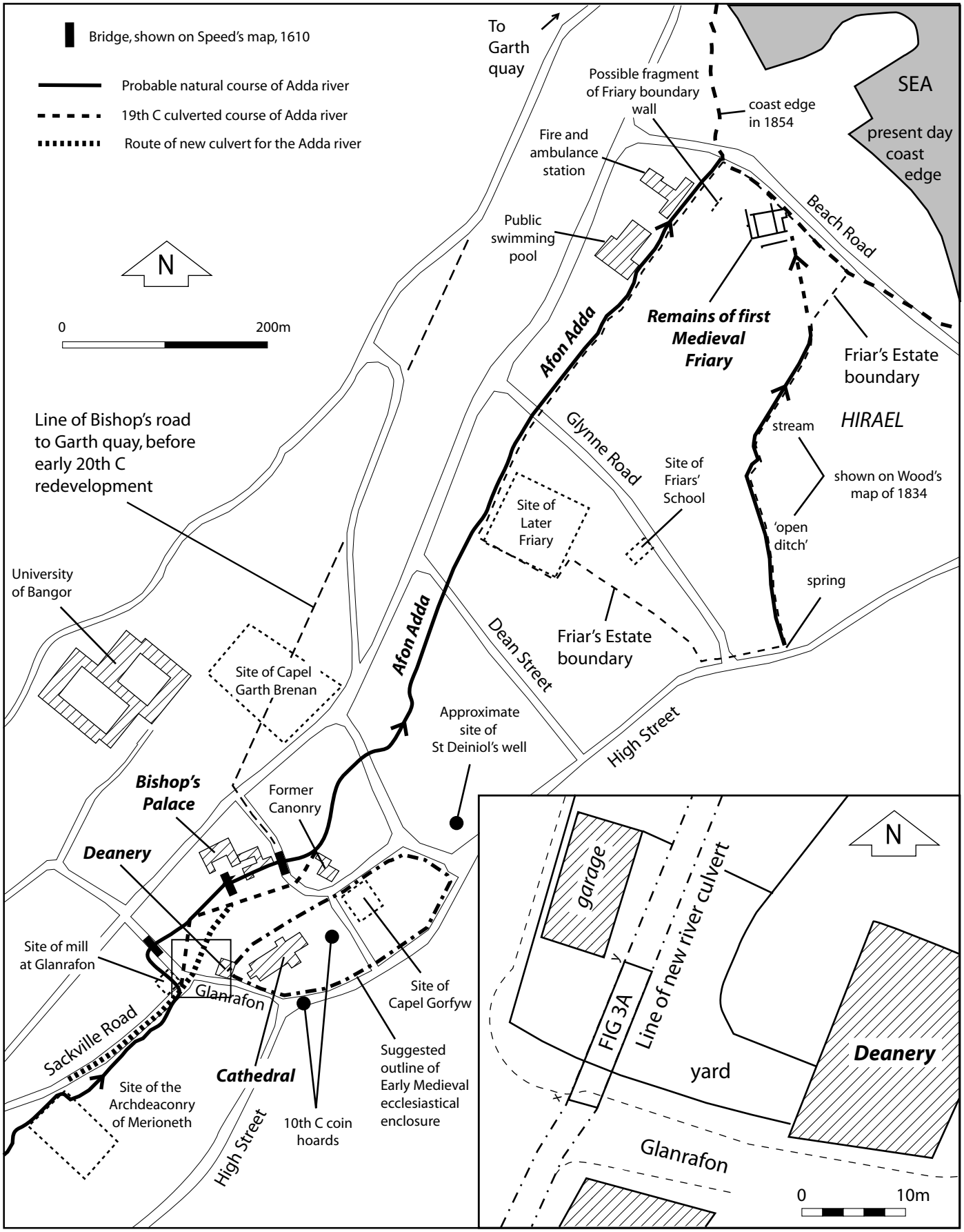

Fig. 1: The main historical features and previous archaeological finds in Bangor showing the Afon Adda and, inset, the line of the new culvert near the Deanery

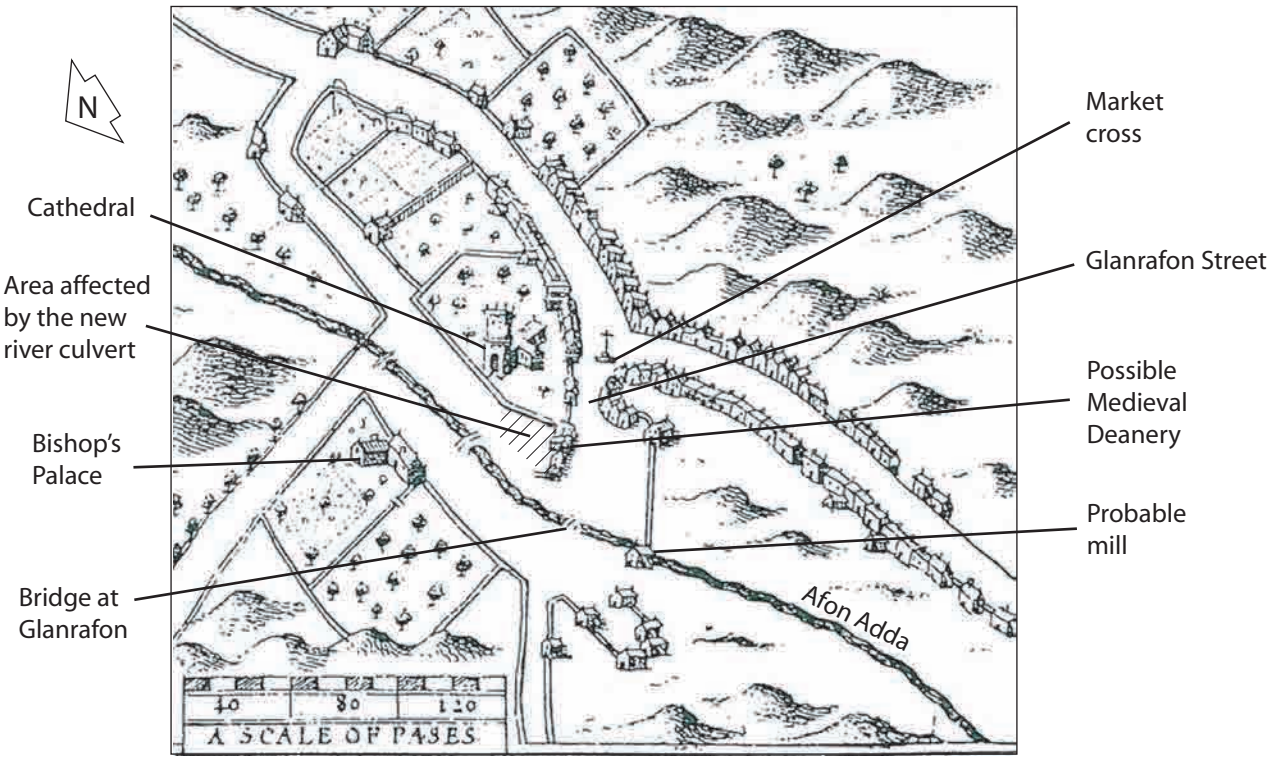

Fig. 2 Map of Bangor by John Speed 1610,
annotated to show features relevant to the Afon Adda re-culverting

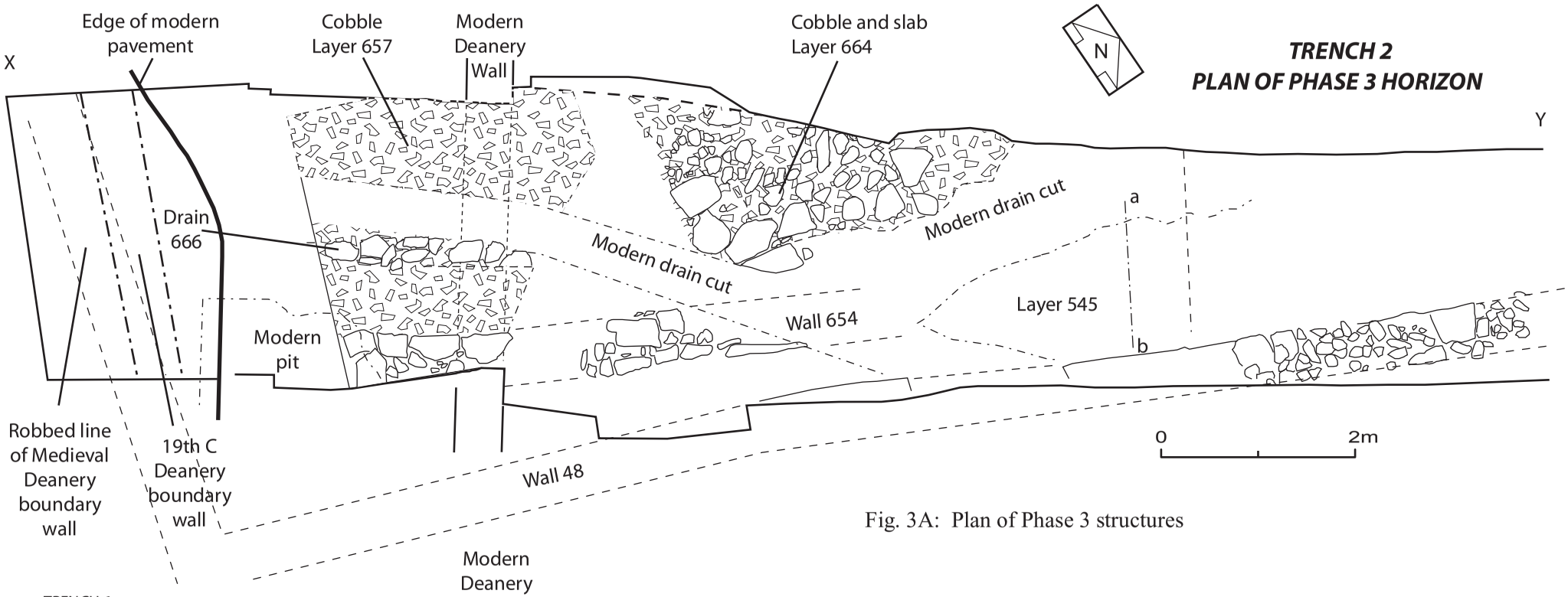

Fig. 3A: Plan of Phase 3 structures

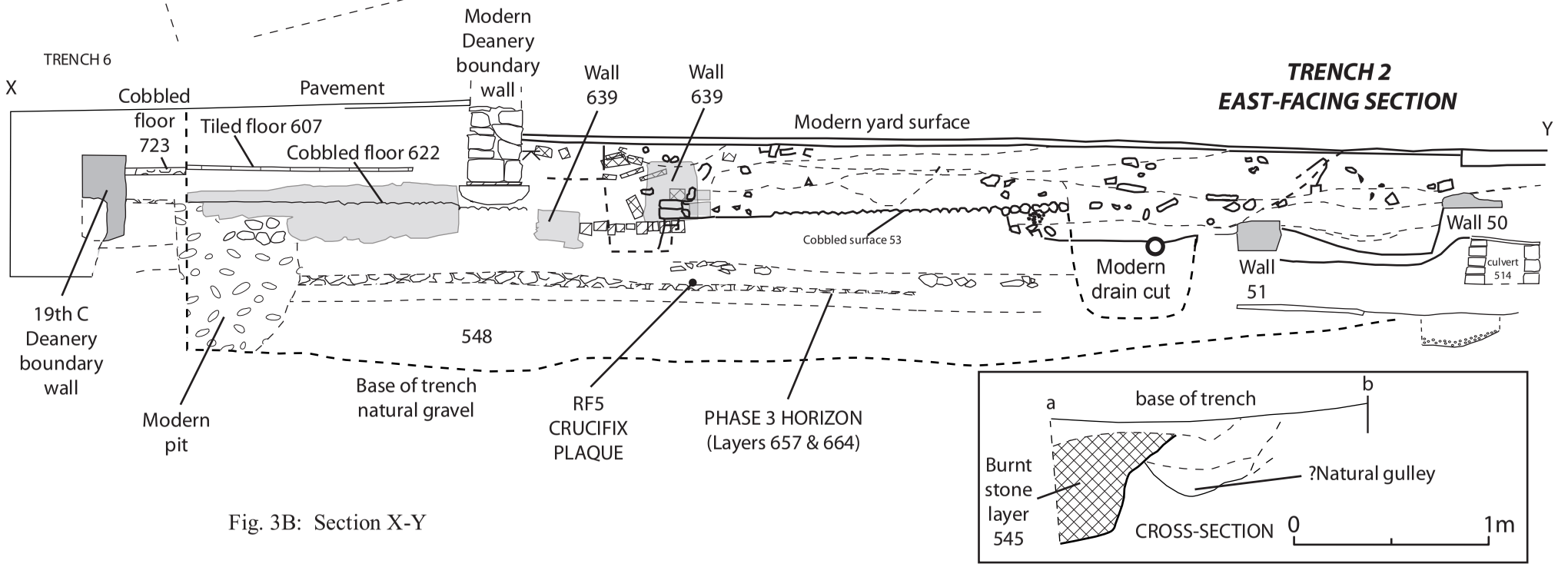

Fig. 3B: Section X-Y

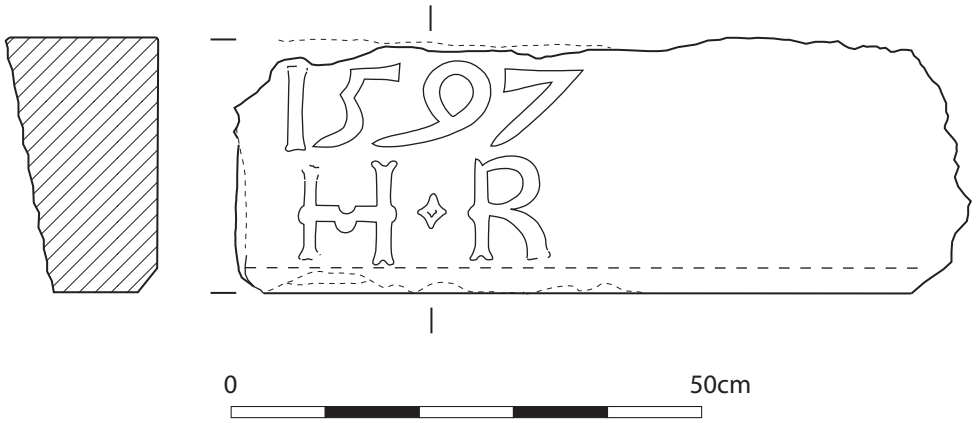

Fig. 4 Carved stone lintel fragment

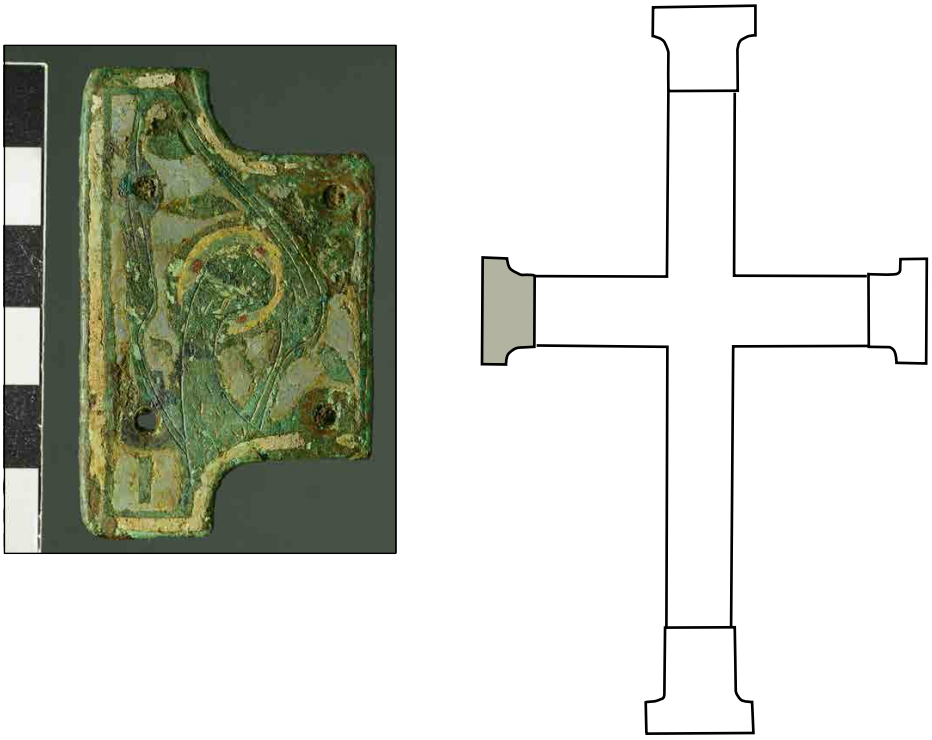

Fig. 5 The enamelled plaque from Bangor and a simplified reconstruction showing its original position on arm of rear of wooden crucifix.
Photo: P. Parkes, University of Cardiff. Plaque after cleaning (scale with 1cm divisions)

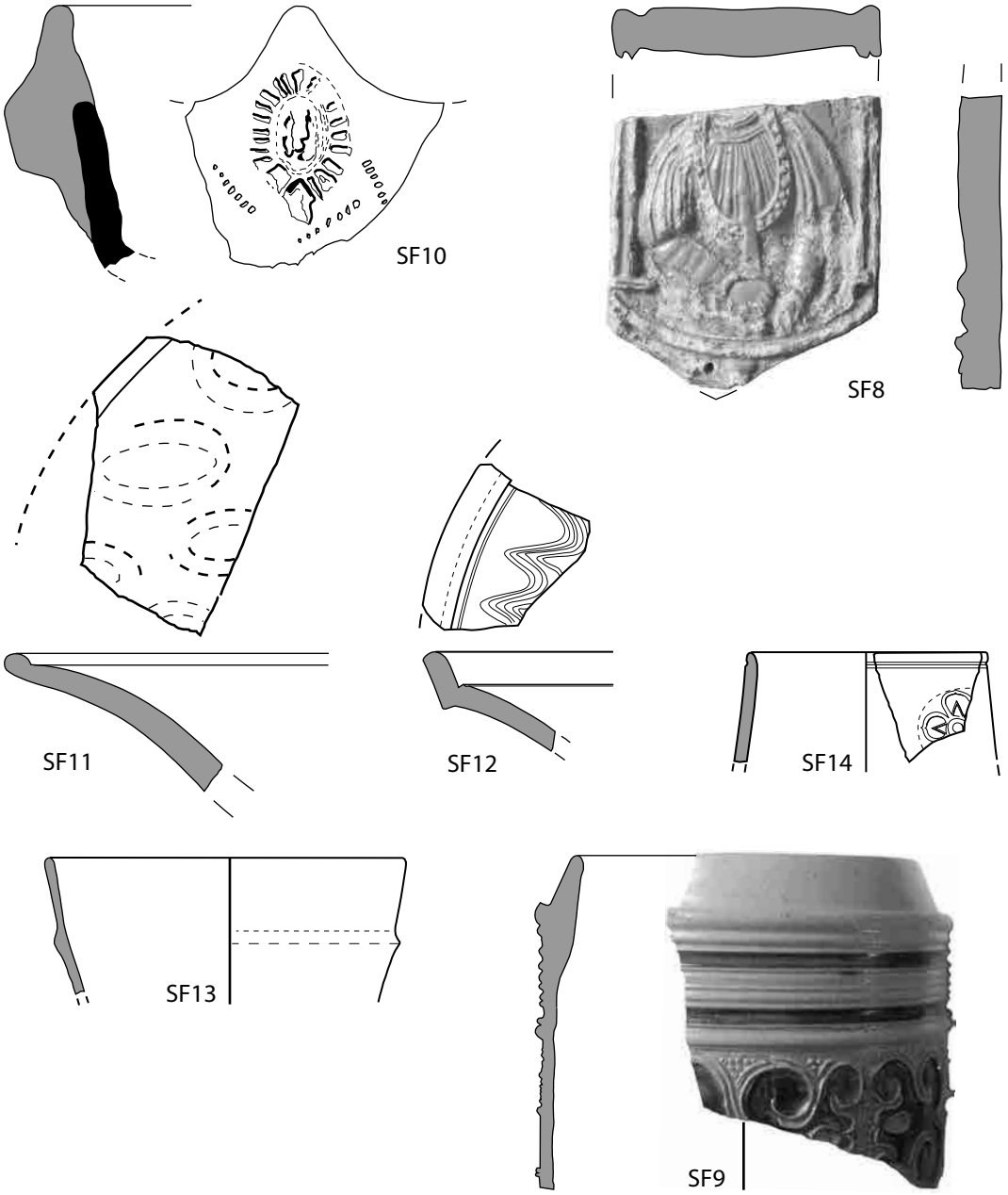

Fig. 6 Medieval and post-medieval pottery. Phase 3 -SF10. Phase 4 - SF8,11, 12 13, 14. Phase 5 - SF9
Scale : SF8 1:1, Rest 1:2

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