CPAT Report No 909

Excavation and survey at Meusydd Henge and Timber Circles, Llanrhaeadr-ym-Mochnant, Powys, 2007

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

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Report for Cadw

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1 INTRODUCTION

1.1 A programme of geophysical survey and small-scale excavation was undertaken during the summer of 2007 on the site of a complex of monuments 1.3km south-east of Llanrhaeadr-ym-Mochnant in Powys (SJ 13432520). The complex is protected as a scheduled ancient monument (De220 (POW)) and a project design was submitted to, and approved by Cadw, who also funded the project as part of the on-going programme studying prehistoric funerary and ritual monuments. Prior to the project none of the elements within the complex had been the subject of any archaeological investigation.

1.2 The complex was first discovered from the air by Dr J K St Joseph of Cambridge University in July 1975 (Plate 1), with cropmarks revealing a henge (PRN 101071) and two circles formed by pits (PRNs 101724-5). Further aerial reconnaissance, principally by St Joseph and Chris Musson, has also revealed numerous ring ditches elsewhere in the Tanat Valley, while the surrounding uplands contain a range of upstanding prehistoric funerary and ritual monuments. Of particular note are the two stone circles at Rhos y Beddau, to the north-west of Llanrhaeadr-ym-Mochnant, as well as the impressive standing stone at Maesmochnant, 460m to the south-east of Meusydd Henge (Fig. 1).

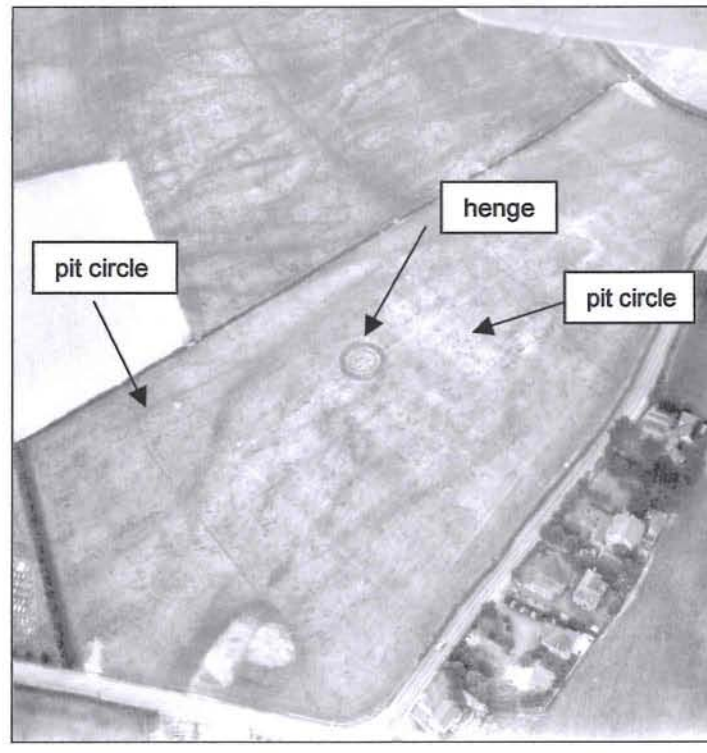

Plate 1 Cropmarks showing the Meusydd henge complex. Photo CUCAP BTW007
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1.3 Although the distribution of cropmarks cannot be seen as reflecting the totality of the archaeology, the available evidence does suggests a greater concentration of ritual and burial monuments in the area around Meusydd, where the confluence of the Afon Rhaeadr and Afon Iwrch with the Afon Tanat broaden the main valley to form a basin. Meusydd lies on the floor of the basin on its northern side, between the Afon Rhaeadr and Afon Iwrch. The valley floor is formed by coarse river gravels and numerous old river channels are evident, either as visible

hollows or cropmarks, indicating significant river movement in the period since the last glaciation. The course of the Tanat and its tributaries at the time the complex was in use, perhaps around 2800 to 1700 BC, has not been identified.

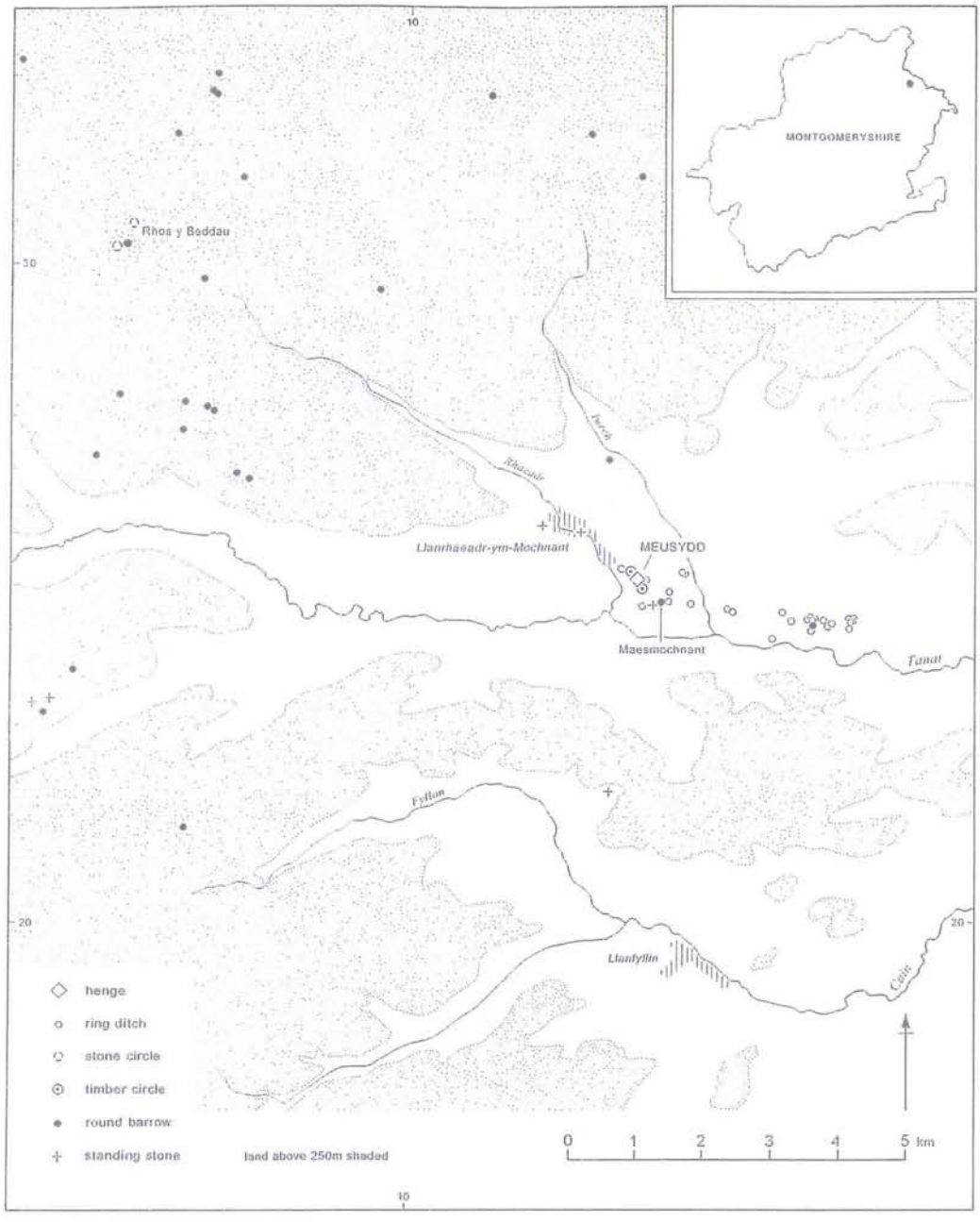

Fig. 1 Meusydd location showing prehistoric funerary and ritual monuments in the area

1.4 The excavations comprised three trenches, investigating the henge and both timber circles, and followed a programme of geophysical survey, together with a review of available aerial photography. A summary of the main features and trench locations is provided in Fig. 2.

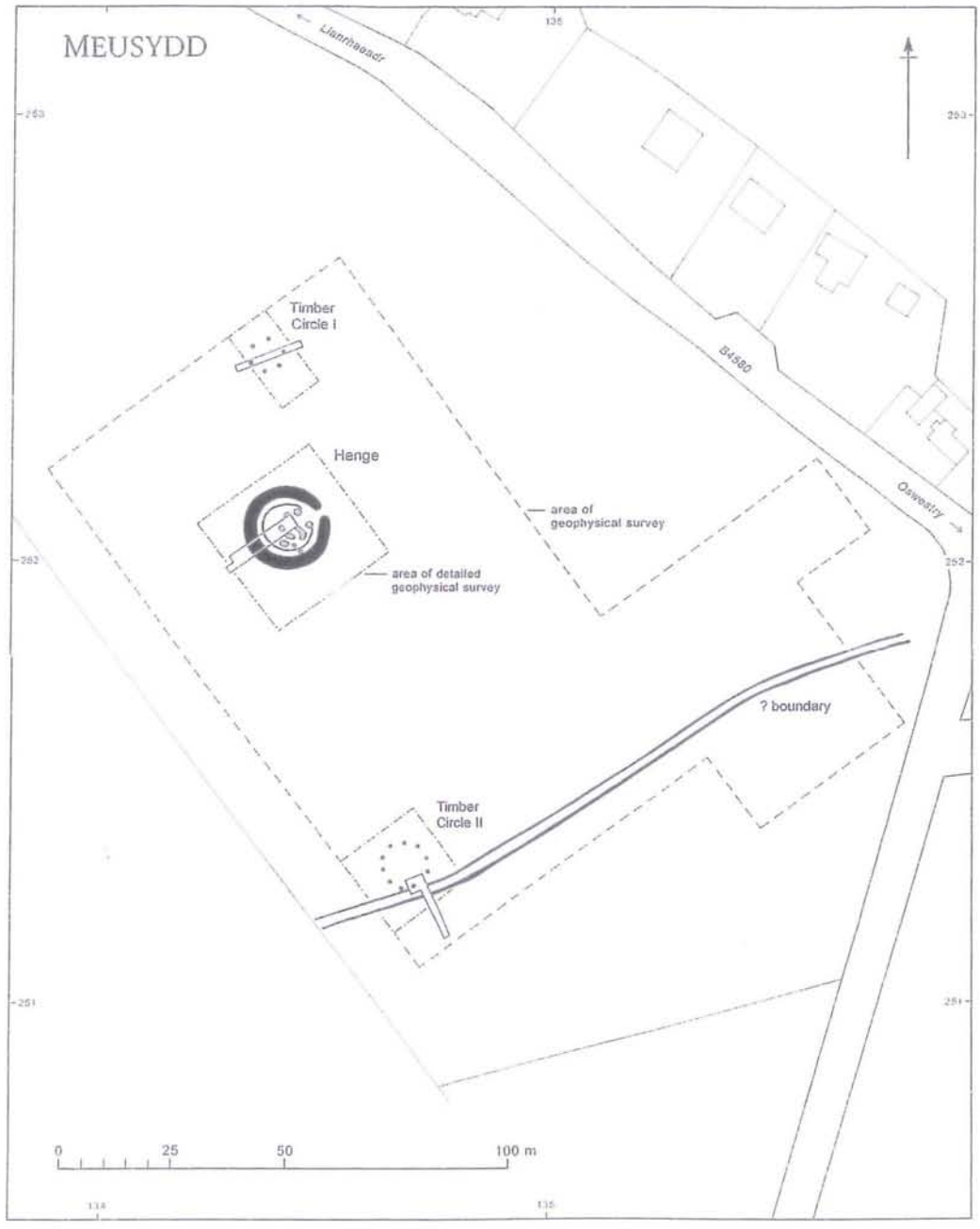

Fig. 2 Meusydd henge and timber circles showing the location of trenches and geophysical survey areas

1.5 This report presents an interim summary of the project which will be reported on in further detail in an article to be submitted to *Montgomeryshire Collections* in due course. The landowner has given permission for the finds to be deposited with the Powysland Museum in Welshpool, and the site archive will be deposited with the regional Historic Environment Record, maintained by the Clwyd-Powys Archaeological Trust in Welshpool. Context numbers as they appear in the site archive and the illustrations accompanying this report are given in brackets in the following text.

2 GEOPHYSICAL SURVEY

2.1 A magnetometer survey was conducted within an area measuring 140m by 80m, with an additional area on the west side. The survey employed a Geoscan FM36 fluxgate gradiometer, which detects variations in the earth's magnetic field resulting from the presence of iron minerals in the soil. These minerals are generally the weakly magnetised iron oxides that are normally found in topsoil. Features cut into the subsoil can be detected by the instrument when topsoil has formed part of their fill, whether directly or by silting.

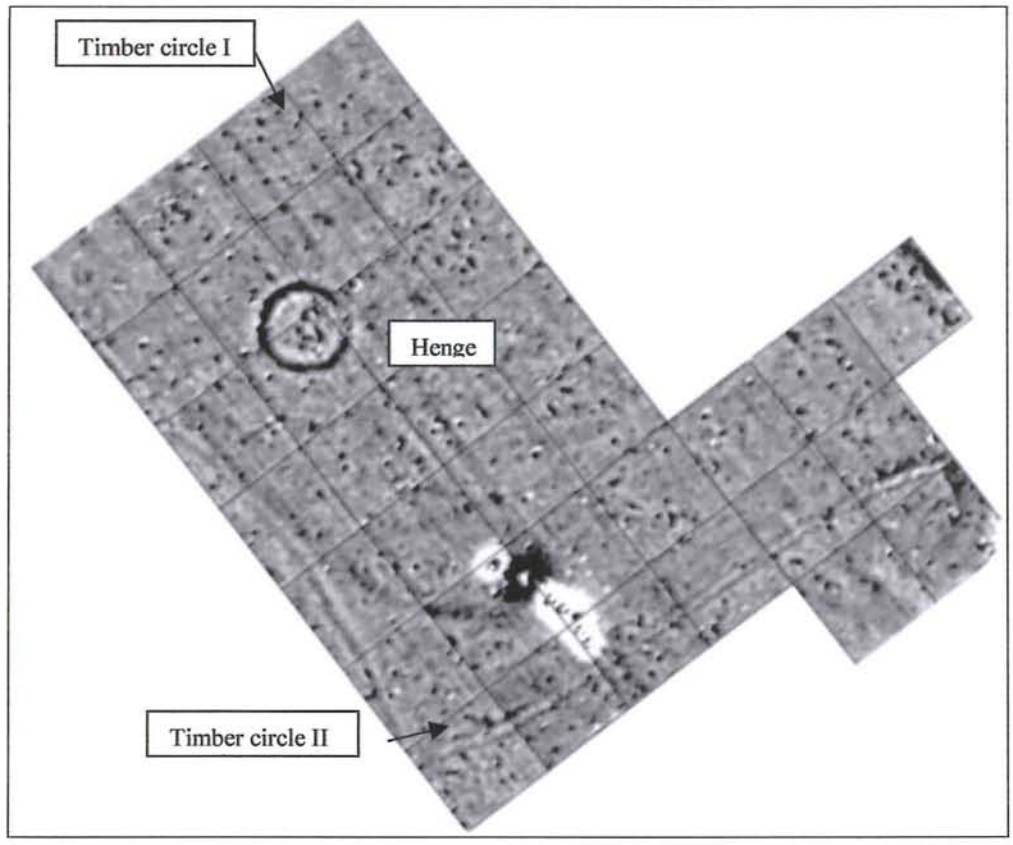

Fig. 3 Standard resolution magnetometer survey based on 20m grids

2.2 The gradiometer has an on-board data logging device which enables readings to be taken at specific time intervals. These readings can then be correlated with geographical locations. Readings were taken along parallel traverses of a 20m by 20m grid, with a traverse interval of 1m. The speed of each traverse was controlled so that readings were taken every 0.5m, thereby giving a total number of 800 readings per full grid. More detailed surveys were also undertaken within the areas immediately surrounding the henge and each pit circle to achieve better definition, with readings taken at 0.25m with a traverse interval of 0.5m, thereby achieving four times as many readings per grid as the standard survey.

2.3 The surveys were located using total station surveying and not only provided more detail than had previously been available from aerial photography, but also enabled the accurate location of each monument and their constituent features. It had been thought that the surveys might identify further elements of the complex which were not apparent as cropmarks. However, although the results were very positive with regard to the known monuments, the surveys failed to reveal any evidence for other features within the immediate area.

3 THE HENGE

3.1 The geophysical surveys confirmed the henge had a broad ditch with an external diameter of around 19m and a probable entrance 2.2m across on the north-east side. An area of low magnetic response outside the ditch suggested the position of an outer bank around 2.5m in width, while internally the surveys suggested the survival of a remnant mound *c.*10.8m in diameter. Cropmark evidence also suggested the presence of a narrow inner ditch and although this was not readily apparent in the geophysical survey results, its position did appear to mirror that of the putative remnant mound. Both the geophysics and cropmarks suggested the presence of a number of large pits in the central area of the henge, each at least 1.2m across, some of which could represent an internal timber setting while others might presumably have a burial or ritual function.

3.2 The henge lies in a large pasture field, within which slight undulations reflect former river channels and a prominent gravel terrace to the north-east. Visually, there is little trace of an upstanding monument, although a detailed topographical survey confirmed a slight mound perhaps 0.1m to 0.15m high, which has been spread by ploughing in a north-east to south-west direction.

3.3 The excavation comprised a single trench initially measuring 16m by 3m (Fig. 4), extending south-west from the centre of the henge, with a hand-excavated extension measuring 2m by 1.5m at the south-west end. The ploughsoil was removed mechanically, immediately revealing the upper fill of the ditch, with natural river gravels outside and remnant mound material in the interior. The depth of modern ploughsoil was extremely shallow over the centre of the mound (0.15m) and it was evident that ploughing was continuing the process of denudation.

Plate 2 CPAT staff and volunteers cleaning across the henge ditch. Photo CPAT 2460-027

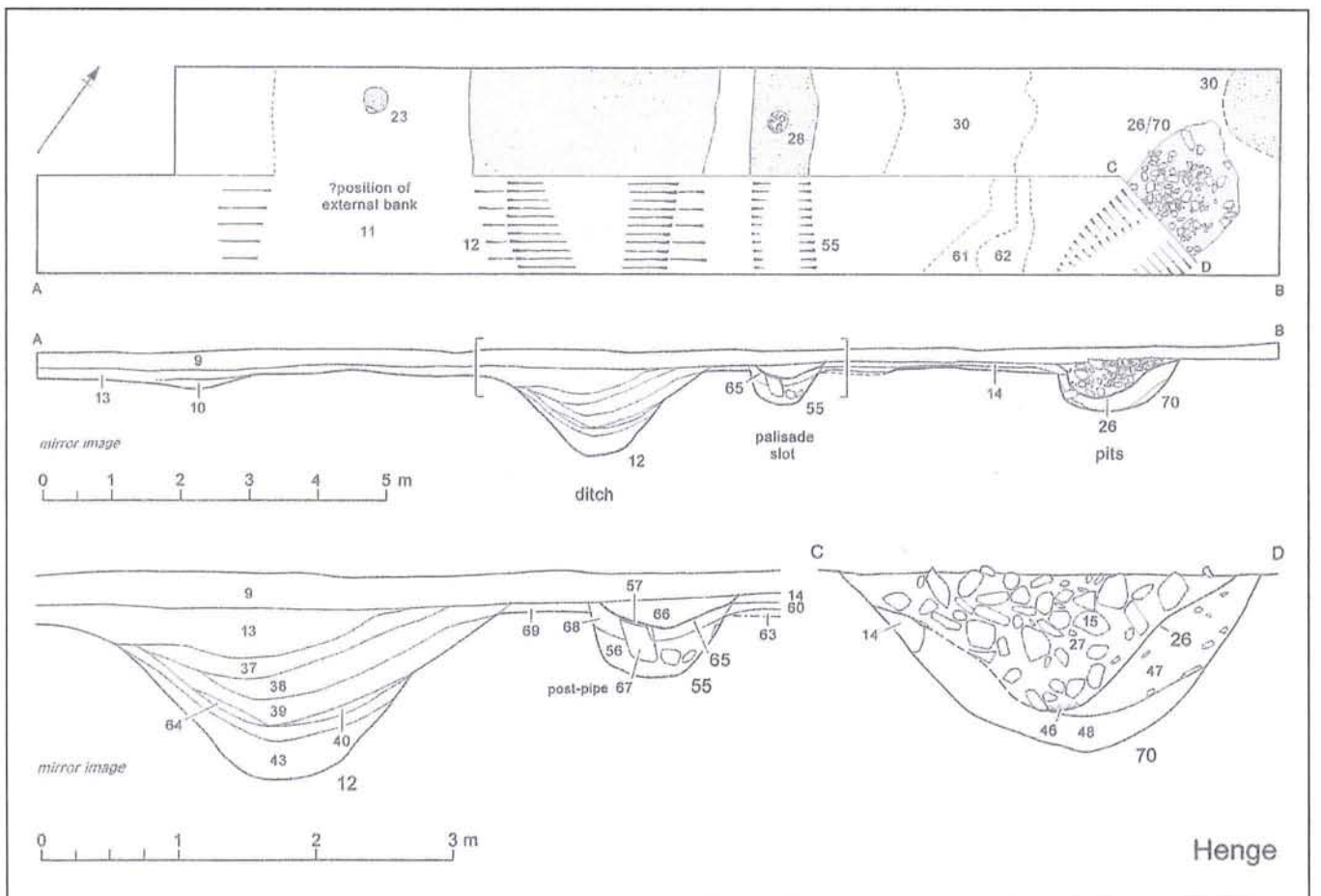

Fig. 4 Henge excavations showing ditch section and section of pits 26 and 70

The Henge Ditch

3.4 The henge ditch was investigated in a 1.5m-wide section, revealing a broad, rounded profile, up to 2.8m wide and 1.15m deep below the surface of the natural gravels. The ditch appears to have silted naturally, and there was no evidence for any later recutting. The primary silting consisted of gravel with lenses of silty clay (43) which had weathered from the sides of the ditch, although primarily from the outer side. This silting profile was also apparent in a layer of orange-brown clay silt (41), which appeared to have been mostly deposited from the outer edge, suggesting the presence of an external bank. The initial stabilisation of the ditch may be represented by the upper surface of layer 41, above which further erosion of the natural gravels is indicated by layers 40 and 64. The upper silting, represented by layers 39, 38 and 37, appears to have been derived from the interior, presumably representing redeposited mound material.

3.5 No artefacts were recovered from the ditch, but a bulk sample was taken from context 41, from which it is hoped that material will be recovered which is suitable for radiocarbon dating.

3.6 Outside the ditch there was a broad band of compacted river gravel (11), extending for around 3m, its outer edge marked by a slight scarp. It seems likely that this represents the position of the external bank, although ploughing had removed all trace of bank material. A possible posthole (23) was identified cutting into the gravel, measuring around 0.35m in diameter, although this remained unexcavated.

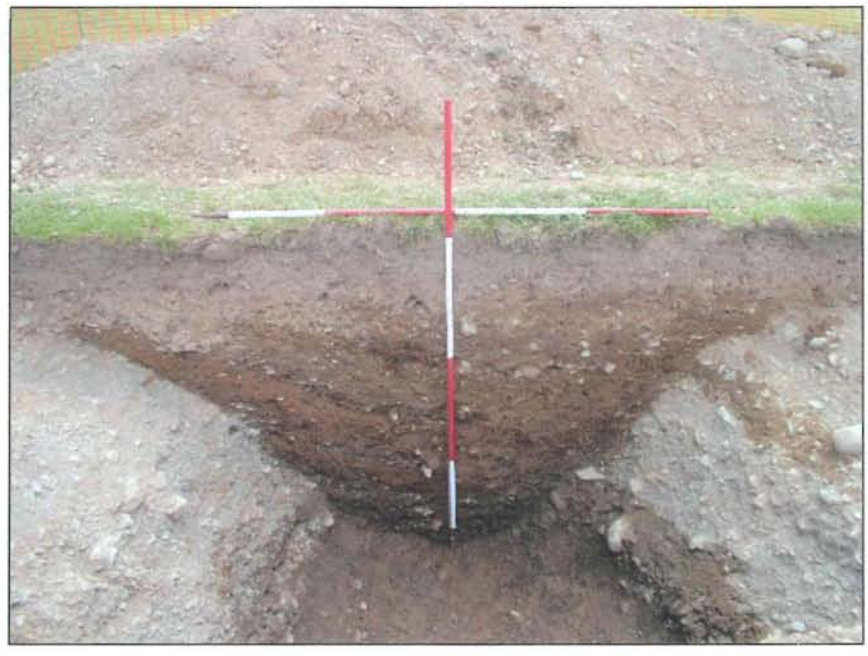

Plate 3 The henge ditch (12). Photo CPAT 2460-077

The Henge Interior

3.7 The interior of the henge contained significant, if rather slight deposits which indicated the remains of a turf mound. Two layers of silty clay (14 and 30) displayed heavy iron panning characteristic of redeposited turf, together forming a remnant mound surviving to a height of no more than 0.1m. Ploughing had evidently spread the mound material and the outer edge of the mound was hard to identify. A 1.5m-wide section was excavated through the surviving mound to reveal the natural gravel with patches of silty clay, although with no obvious buried soil.

Plate 4 The palisade slot and henge ditch. Photo CPAT 2460-099

3.8 The narrow inner ditch suggested from cropmark evidence initially proved difficult to identify, although it was eventually confirmed only 0.7m inside the inner edge of the henge ditch. The excavation of a 1.5m-wide section revealed a narrow, steep-sided slot (55), 0.95m wide and cut 0.5m into the natural gravel. The slot was largely filled with loose gravel (56), within which there were several areas containing river cobbles up to 0.15m across, and sealed beneath a layer of orange brown silty clay (68) which could represent slipped mound material. An intermittent, near vertical, band of charcoal was also noted (57), having been initially recognised as small patches on the surface of the feature. This was clearly visible in the section, where it appeared to be associated with a patch of gravelly silt (67), 0.18m across and 0.28m deep, possibly indicating a post-pipe. The unexcavated section of the slot contained an obvious posthole (28) around 0.3m in diameter, within which packing stones were visible. With hindsight it seems likely that the areas of river cobbles within the excavated section could also have been associated with post settings, although this was not apparent at the time of excavation. Although no artefacts were recovered, the charcoal deposit (57) provided ample material for radiocarbon dating. The upper part of the slot had been disturbed against the south-eastern baulk by a shallow pit or butt-ended gully (65).

3.9 A large elongated pit (26) was identified near the centre of the henge, cutting through the turf mound and filled with closely packed river cobbles (15) surrounded by a matrix of fine pea gravel (27). The stones protruded through the mound material and into the base of the ploughsoil, which at this point was only 0.15m thick. The pit was aligned north to south, 1.55m wide with a rounded northern end and extended for at least 3m, continuing beyond the limit of excavation. Careful removal of the cobbles uncovered a fragmented Beaker, the sherds concentrated in a small area on the eastern side of the pit, on or near its base. A thin lens of dark brown, humic silt (46) was observed in the area of the find and extended across much of the base.

Plate 5 Pit 26 showing stone packing (15) and earlier pit 70, sealed by mound material on the southern (right) side. Photo CPAT 2460-101

3.10 The pit had been cut into the top of an earlier feature (70), around 1.45m wide and 0.7m wide, the exact shape of which could not be readily determined. It was apparent, however, that the earlier feature had been sealed beneath the turf mound (14), which had then been disturbed by the later pit. The primary fill consisted of fine pea gravel (48), overlain by an orange-brown silty clay (47), neither of which produced any artefactual evidence.

3.11 The geophysical surveys and cropmark evidence suggested that two large pits should be present within the excavated area, of which only one was tentatively identified. An area of orange-brown silty clay was identified near the centre of the henge, immediately to the north of pit 26. Although time constraints prevented its investigation, it seems likely that this represented a large pit (71), around 1.2m across, which appears to have cut through the turf mound. A second feature had been anticipated to the west of pit 19, and although the excavation failed to identify a pit it is possible that this was sealed beneath the mound material.

4 TIMBER CIRCLE I

4.1 The smaller of the timber circles lies 38m from the centre of the henge, to the north-north-west, and is composed of six pits forming a circle 7.4m in diameter, measured from the centre of the pits. The pits are roughly evenly spaced, about 3.5m apart, with the exception of the north-eastern pair, which are 4.3m apart, implying a possible entrance.

4.2 A single trench measuring 15m by 1.5m was excavated across the centre of the circle (Fig. 5), with the ploughsoil being mechanically stripped down to the surface of the natural river gravels. Two of the pits (19 and 22) were immediately identified, although there was no indication of any activity in the central area.

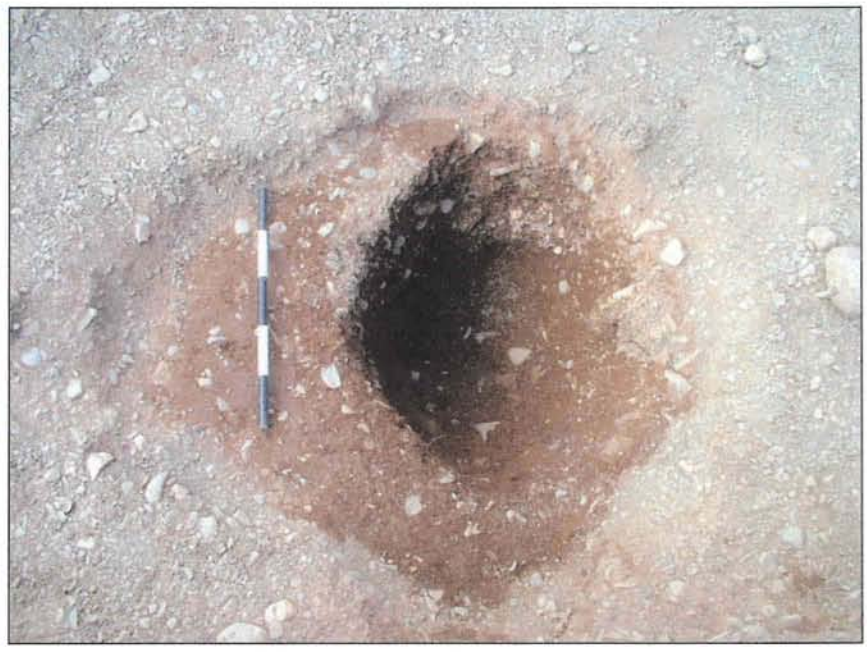

Plate 6 Post pit 19 showing the excavated post-pipe with cremated bone visible around the edge. Photo CPAT 2460-059

4.3 Following the initial hand-cleaning, fragments of cremated bone were identified in the surface of both features, although only one of the pits (19) showed any obvious post-pipe and it was this feature which was then investigated further. The unexcavated pit was oval, measuring 1.0m by 0.75m, the shape suggesting the presence of a ramp.

4.4 The excavated pit was steep-sided, 1.0m in diameter and 0.58m deep, with a fairly flat base. There was a slight 'ramp' on the south-western side, although this could have been caused during the erection of the post rather than being a deliberately constructed feature.

4.5 The central post-pipe (31) was 0.48m in diameter and the upper fill (32), a dark brown silty clay, suggested that at one stage it had appeared as a dished hollow 0.15m deep. The post-pipe was filled with layers of silty clay (34 and 35), with a gravelly basal layer (36), and was lined with charcoal, demonstrating that the post had been charred before its erection. An unexpected discovery was a cremation which had been deliberately placed against the north-east side of the post as the pit was backfilled. There was no indication of any containing vessel and initial analysis by Dr Ros Coard, University of Wales College Lampeter, points to it being a young adult,. Soil samples from within and around the cremation are awaiting analysis, and charcoal from the post will be submitted for radiocarbon dating in due course.

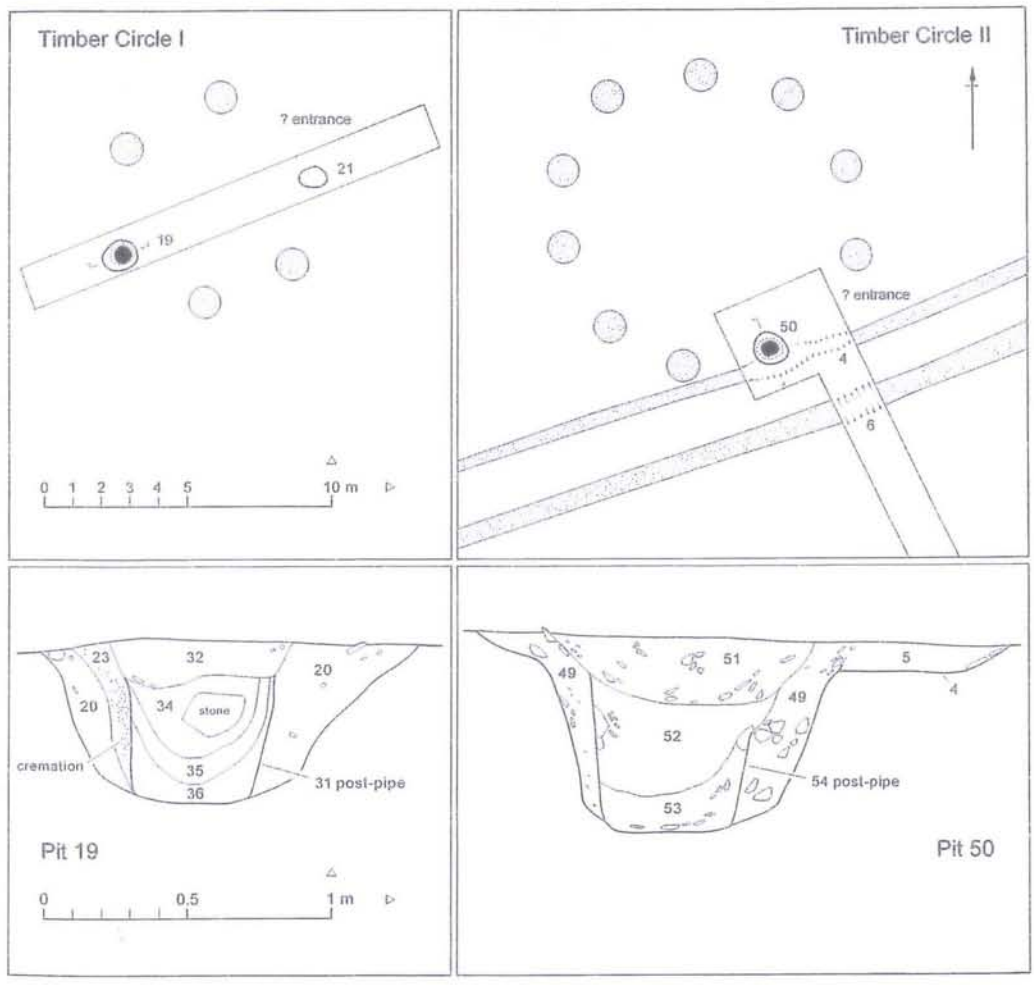

Fig. 5 Timber circle excavations and sections of post pits

5 TIMBER CIRCLE II

5.1 The larger timber circle lies 80m from the centre of the henge, to the south-south-east, and is composed of ten pits forming a circle 10.5m in diameter, measured from the centre of the pits. Again the pits are roughly evenly spaced, between 2.7m and 3.3m apart, with the exception of the south-eastern pair, which are 4.5m apart, indicating a possible entrance.

5.2 A single trench measuring 15m by 1.5m was initially excavated (Fig. 5), with the ploughsoil being mechanically stripped onto the surface of the natural river gravels, although this failed to identify the timber circle. Two parallel, linear gullies were uncovered, however, both of which were already known from the geophysical survey. The gullies were aligned east-north-east to west-south-west, and were 1.5m apart. The southerly of the two (6) was the more obvious, measuring around 1.0m wide and 0.25m deep with a rounded base. The other gully (4) was very slight and rather irregular, measuring up to 0.65m wide and only 0.1m deep. Neither feature produced any artefactual evidence. Towards the south-eastern end of the trench there were a number of slight hollows in the surface of the natural gravel which were filled with pinkish clay (8) suggestive of burning although with no associated charcoal.

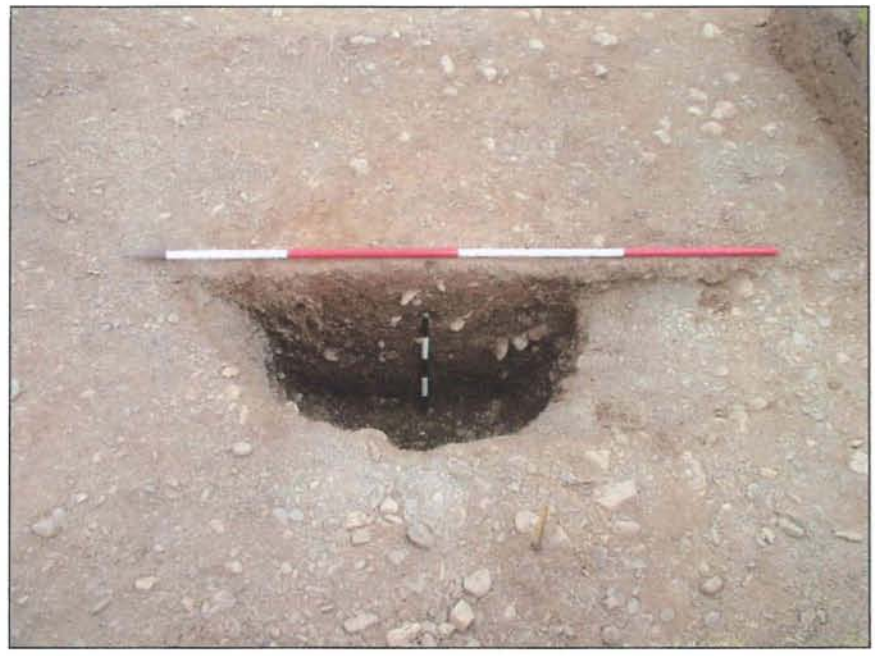

Plate 7 Pit 50 showing post-pipe and with gully 4 to the right. Photo CPAT 2460-104

5.3 An extension was excavated by hand at the north-western corner of the trench, measuring 3.5m by 2.5, and it revealed a single pit (50) cut into the natural river gravels. The pit was circular, 1.1m in diameter and 0.7m deep with steep sides and a flat base. The central post-pipe was 0.5m in diameter and as in Timber Circle I the upper fill (51) pointed to a period of natural infill within a hollow 0.25m deep. In this instance, however, there was no evidence for charring of the post and no associated cremation. Although there was certainly a relationship between the pit and one of the shallow gullies (4), its nature could not be determined.

6 BEAKER POTTERY REPORT by Alex Gibson

6.1 A total of 121 sherds of Beaker pottery were sent to the writer for comment. The pottery was in a fragile, unconserved state and numerous fresh breaks were noted amongst the assemblage. Only macroscopic analysis was undertaken (with the aid of a x10 hand lens) and no microscopic analysis of the fabric was available. Fabric descriptions, therefore, may be liable to change and/or refinement should microscopic fabric analysis be carried out in the future.

6.2 The fabric is soft and friable and averages some 7mm thick. It has a light brown outer surface with some pink patches, and a slightly darker brown inner surface. The fresh breaks indicate a black carbon-rich core typical of a short open firing. The fabric appears to contain some finely crushed grog and an abundance of organic inclusions. These are particularly notable on the heavily pitted inner surface (Plate 8). Some rounded and oval voids may be seed impressions. Voids are also visible on the outer surface but to a lesser extent.

Plate 8 Organic voids on interior of Beaker

6.3 The vessel has been coil-built and join voids can be clearly observed in the breaks indicating poor manufacture and insufficient bonding of the separate coils (rings or straps). Some fractures have occurred along the line of a poorly-bonded coil and have resulted in 'false rim' and grooved breaks. These are particularly noticeable on the belly of the pot (Plate 9).

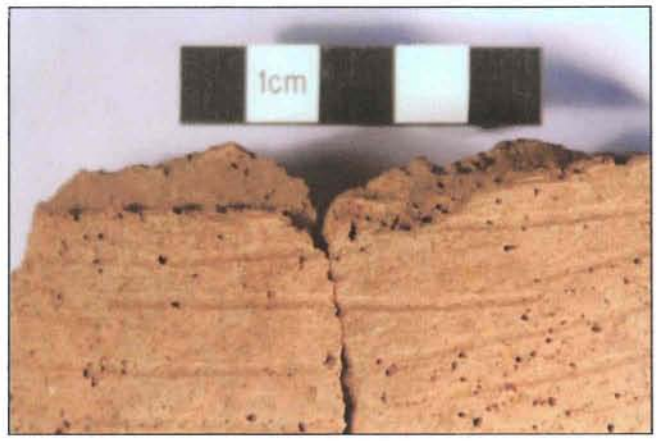

Plate 9 Coil breaks in the belly of the pot

6.4 The rim is simply rounded and everted (Plate 10) and there are some possible smoothing marks on the better preserved sherds. The rim diameter appears to be in the region of 220mm and only around 50% of the rim is present. Averaging 20mm below the rim there is a low, raised external horizontal cordon 14mm broad. The neck and belly profile forms a sinuous 'S' shape before coming down to a base *c.* 90mm in diameter, with an external lip.

Plate 10 Cordoned rim

6.5 It was not possible securely to effect a stable reconstruction of the profile of the pot (Plate 11), but sufficient uncleaned joins could be detected to suggest a height of *c.*225mm with a belly diameter of *c.*240mm.

6.6 The decoration comprises one encircling incised line above the cordon and seven incised encircling lines below the undecorated ridge. There follows an undecorated zone 24mm deep followed by a zone of four encircling incised lines. A second undecorated zone, 35mm deep is below these lines and located at the top of the rounded belly. A final zone of nine incised lines leads to a third undecorated zone 35mm deep above the base. The incised lines all appear to

have been made by the same blunt tool and are *c.*2mm broad, having been executed in short lengths, with overlaps between each length clearly visible (Plate 11).

Plate 11 Profile of the Beaker

6.7 The sherds are all from a single, bulbous, S-profiled vessel with an externally cordoned rim. The closest parallels for this vessel both stylistically and geographically are from another hengiform monument in the Severn Valley at Coed-y-dinas near Welshpool (Gibson 1994, 173-7), although at this latter site the majority of the pottery is more fragmentary and the decoration is largely comb-impressed. Like the Meusydd vessel, the Coed-y-dinas pottery is in a good quality fabric containing finely crushed grog and the vessels have been well-fashioned. The decoration on the Meusydd pot, however, is somewhat carelessly executed and, as previously stated, is incised rather than combed.

6.8 The bulbous but sinuous profile of the vessel and the contraction of the decorated zones into three main bands may classify the Beaker as a W/MR style beaker (though also closely related to the East Anglian style) of Clarke's (1970) typology, or step 3 or 4 in the scheme of Lanting & van der Waals (1972). Both schemes would suggest that the pottery is stylistically early though this may have little relevance to absolute dates (Kinnes *et al.* 1991). A recent re-assessment of Beakers by Needham, however, would place the bulbous S-profile of the Meusydd Beaker in his 2nd or 3rd phase of Beaker ceramics, suggesting that it is stylistically late in the sequence somewhere possibly between 2100 and 1700 cal BC (Needham 2005). With its date of 3630±40 BP (BM-2837), this would certainly strengthen the links of the Coed-y-Dinas vessel to the Meusydd Beaker.

6.9 Beaker is comparatively rare in this part of the Upper Severn Valley. As well as at Coed-y-dinas, cordoned rim Beakers have also been found at Four Crosses (Warrilow *et al.* 1986, Fig. 11) and at Bromfield in neighbouring Shropshire, some 50km to the south-east (Stanford 1982, Fig. 5). Beaker has also been found at Trelystan (Britnell 1982) and at the Breiddin in the pre-hillfort phases (Musson 1991, 117). The small later prehistoric enclosure at Collfryn also produced an earlier Beaker pit deposit (Britnell 1989, 125). These Beaker finds may well be derived from domestic assemblages.

6.10 It was suggested from both the pottery and associated charcoal that the Coed-y-dinas material was derived from a domestic context (Gibson 1994, 176 & Appendix II) and this may also be the case with the present fragmented (or at least incomplete) vessel. The context of the Coed-y-Dinas pottery, however, on the floor of a henge ditch and in the southern part of the circumference suggested that it resulted from a deliberate act of deposition. The radiocarbon date for Coed-y-dinas of 3630±40 BP (BM-2837) is also acceptable for the Meusydd vessel and with the suggested dates for S-profiled vessels in Needham's scheme. The few dates for Welsh Beakers have already been shown to be largely unreliable, derived as they are from charcoal (Gibson 1994, table 1). To this problem must also be compounded the fact that the assemblages mentioned above, as with the present vessel, are all represented by fragmentary material suggesting the possibility that the pots may already have been 'old' when deposited; this certainly seems to have been the case with the pottery and flints from the pit deposits at Upper Ninepence in the Walton basin (Donahue in Gibson 1999, 100-111).

6.11 It is perhaps noteworthy that of the three henge monuments recently excavated in Wales, Beaker has been associated with two of them – Meusydd and Coed-y-dinas. The third, at Dyffryn Lane, produced no artefacts from the primary ditch silts, but radiocarbon dates suggest that it was constructed in the Beaker period (Gibson in prep.).

7 DISCUSSION

The Henge

7.1 Montgomeryshire has relatively few henge monuments, and the only site which survives as an earthwork is at Dyffryn Lane, near Berriew (SJ 20430140). The henge was investigated in 2006 as part of a joint project between CPAT and Bradford University which was primarily aimed at confirming the sequence and dating of the henge. The Dyffryn Lane site, like that at Meusydd, is what is known as a Class 1 henge, in that it has a single entrance. The henge comprises a broad ditch, over 60m in diameter, with an entrance gap on the north-west side, an outer bank, and an inner mound covering a stone circle. The excavations investigated the ditch, which was around 6.5m wide and up to 2.1m deep, and revealed remnants of the outer bank, which comprised a layer of redeposited gravels 0.1m thick, sealing a leached old ground surface. The remains of a pre-bank soil were identified beneath part of the bank, within which a small hearth was revealed, consisting of an area of heat-reddened soil with charcoal patches. Charred material from the hearth has provided a radiocarbon date which calibrates to 2830 to 2820 BC and 2630 to 2460 BC at 2 sigma (Beta 223792). Three pits were identified which might have been sealed by the bank, two of them producing sherds of middle Neolithic Peterborough-style pottery. The excavations also demonstrated that the inner turf mound post-dated a stone circle around 11.2m in diameter (Gibson forthcoming).

7.2 The area to the south of Welshpool, around Sarn-y-bryn-caled, has a complex of prehistoric ritual monuments including two penannular ring ditches, and two other ring ditches with causewayed entrances. Excavations in 1991 investigated one of the penannular sites and both of the other ring ditches, suggesting that they all fell into the broad category of hengiform monuments; while the former was associated with Peterborough ware and yielded radiocarbon dates suggesting activity between around 2700 BC and 3000BC, the ring ditches produced an assemblage of Beaker associated with a radiocarbon date of 3630±40 BP (Gibson 1994, 173-7). Elsewhere on the Severn/Vyrnwy floodplain there are a number of large ring ditches, notably around Four Crosses and Llanymynech, which may also be henges rather than simply burial monuments.

7.3 The excavations at Meusydd have demonstrated that the henge is a multi-phase monument, comprising the following elements: a large ditch around 2.8m wide, 1.15m deep and 19m in external diameter; a possible external bank up to 3m wide; an internal turf mound around 9m in diameter, retained by a timber palisade; and a series of large pits or post-holes, some of which may predate the mound. The sequence of construction at Meusydd has yet to be confirmed, although it is hoped that radiocarbon dates from the henge ditch and possible the palisade trench will shed further light on the relationships between the main elements of the henge.

7.4 The recent work at Dyffryn Lane has provided new evidence for the dating and sequence of henge monuments and the Meusydd henge appears to be similar in several respects, although on a somewhat smaller scale. Like Dyffryn Lane, Meusydd has a single entrance, although the orientation is to the north-east rather than the north-west. Both sites are now also known to have the remains of an internal turf mound, which at Dyffryn Lane had been erected over an earlier stone circle. At Meusydd it has been thought that the pits identified as cropmarks and by the geophysical surveys might represent post-holes for an earlier timber circle, and while this remains a possibility the recent excavations have suggested that at least one of the pits may be a later feature cut through the turf mound.

7.5 The presence of the palisade trench was first suggested from cropmark evidence, and the excavations have confirmed a narrow slot with an external diameter of *c.* 11.2m. The presence of charred timbers, evidence of packing stones and individual postholes suggests a clear parallel with the excavated round barrow in the Brenig Valley in Denbighshire, known as Brenig 40. This

had a turf mound 20m in diameter which was retained by a timber palisade, the presumed height of which indicated that it may also have retained the clay capping which covered the site (Lynch 1993, 58-65). The Meusydd palisade may have been composed of nearly contiguous charred posts, together with some more substantial posts. The angle of the charcoal deposit suggests that the timbers had been pushed outwards by the weight of the mound, eventually causing the timbers to fail, with material subsequently sealing the palisade slot.

The Timber Circles

7.6 Timber circles are monuments which are only revealed as a result of either excavation or cropmark evidence and consequently their numbers, at least in Wales, are relatively low. Apart from the circles at Meusydd there are only three confirmed examples in Montgomeryshire. The largest, and best known timber circle, is the site at Sarn-y-bryn-caled, to the south of Welshpool (SJ 21903491), which was totally excavated in 1990-1 in advance of the Welshpool bypass. The circle comprised twenty evenly spaced pits forming a circle 17.5m in diameter, with an inner circle of six intersecting pits which had been cut by a large grave. Charcoal from two of the charred posts in the outer circle provided radiocarbon dates which were calibrated at the 68% confidence level to 2100-2000 BC. A primary cremation with the central grave provided a calibrated date of 2400-2300 BC, while a secondary cremation was dated at 2100-2000 BC, both at the 68% confidence level (Gibson 1994). An oval of 36 posts, measuring 6m by 4.9m, was uncovered beneath a round barrow at Caebetin Hill, near Kerry (SO 12658659), during excavations. There were larger posts on the east and west sides and the longer axis was north to south. Internally, there was a hearth and a cremation deposit (Jerman 1932). There is also a further site at Lymore Park, Montgomery (S0 23589519), which is only known from cropmark evidence, indicating a circle 20m in diameter formed by six pits, with a central pit, located within a multivallate enclosure (Gibson 2005, 167).

7.7 Although there may be relatively few timber circles in Wales (nine are known at present), there are almost 100 sites now recorded in Britain and Ireland. These show great diversity, although all are basically either single, double or multiple circles, some of which are more oval than circular. They also vary considerably in size from 6.5m to over 40m. Radiocarbon dates and associated artefacts from a variety of sites indicate the currency of timber circles from *c.* 2800-1500 BC, spanning the later Neolithic and earlier Bronze Age (Gibson 1994). Readers seeking a detailed analysis of timber circles are directed to Alex Gibson's (2005) *Stonehenge and Timber Circles.*

7.8 Various formulae have been proposed for estimating the height of posts, based on the depth of the post-holes. That adopted by Gibson for the Sarn-y-bryn-caled timber circle was a ratio of a post height 3 or 3.5 times the depth of the post-hole. For the Meusydd circles, if one were to add 0.25m of prehistoric topsoil above the surface of the river gravel, this would give a post height above ground of around 1.7m to 2.1m for Timber Circle I, and 1.9m to 2.35m for Timber Circle II.

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APPENDIX 1

PROJECT ARCHIVE

2 black and white negative films, film nos 2458 and 2459
2 colour slide films, film nos cs07-03 and cs07-04
124 digital photographs, film no. 2460
photographic catalogue
context register
drawings register
finds register
levels record forms
Correspondence

Digital data
Topographical survey – Meusydd.pmw (Penmap survey software)
Geophysical survey data

Contexts Register

Context	Type	Comment
1	Layer	Topsoil in Trench 1
2	Layer	Old ploughsoil in Trench 1
3	Layer	Natural gravel in Trench 1
4	Ditch	Western ditch in Trench 1
5	Fill	Fill of ditch 4
6	Ditch	Eastern ditch in Trench 1
7	Fill	Fill of ditch 6
8	Layer	Areas of possible burning in Trench 1
9	Layer	Topsoil in Trench 2
10	Layer	Soil layer to SW of 'bank' 11 in Trench 2
11	Layer	Gravel 'outer bank' in Trench 2
12	Ditch	Henge ditch in Trench 2
13	Fill	Upper fill of ditch 12
14	Layer	Possible turf mound material in Trench 2
15	Fill	Layer of stone. Fill of pit 26 at NW end of Trench 2
16	Layer	Topsoil in Trench 3
17	Layer	Natural gravel in Trench 3
18	Layer	Spread of silts at SW end of Trench 3
19	Pit	Pit in trench 3
20	Fill	Fill of pit 19
21	Pit	Pit in Trench 3
22	Fill	Fill of pit 21
23	Post hole	Post hole in Trench 2
24	Fill	Fill of post hole 23
25	Scoop	Circular scoop filled by 'burnt' silt context 8 in Trench 1
26	Pit	Pit filled by stone layer context 15 in Trench 2
27	Fill	Gravel fill surrounding stones context 15
28	Post hole ?	Possible post hole to NE of ditch in Trench 2
29	Fill	Fill of post hole 28
30	Layer	Iron panned layer beneath turf mound context 14
31	Post pipe	Post pipe within pit 19 Trench 3

32	Fill	Upper fill in post pipe 31
33	Fill	Soily matrix surrounding cremation 59 in Trench 3
34	Fill	Fill of post pipe 31
35	Fill	Fill of post pipe 31
36	Fill	Fill of post pipe 31
37	Fill	Fill of ditch 12
38	Fill	Fill of ditch 12
39	Fill	Fill of ditch 12
40	Fill	Fill of ditch 12
41	Fill	Fill of ditch 12
42	Fill	Fill of ditch 12
43	Fill	Lowest fill of ditch 12
44	Fill	Fill of ditch 12
45	Fill	Fill of ditch 12
46	Fill	Fill in pit 26 below stone layer 15
47	Fill	Fill in pit 26
48	Fill	Gravel primary fill of pit 26
49	Fill	Fill of post pit 50
50	Post pit	Post pit (part of timber circle) in Trench 1
51	Fill	Upper fill of post pit 50
52	Fill	Upper fill in post pipe 54
53	Fill	Basal fill of post pipe 54
54	Post pipe	Post pipe within post pit 50
55	Ditch	Inner henge ditch/palisade trench in Trench 2
56	Fill	Fill of ditch 55
57	Layer	Charcoal deposit in ditch 55
58	Layer	Old ploughsoil in Trench 3
59	Cremation	Cremation in backfill of post hole 19
60	Layer	Silty layer with panning below turf mound in Trench 2
61	Layer	Stony silt layer in Trench 2
62	Layer	Gravel band possibly natural
63	Layer	Gravel probably natural in Trench 2
64	Fill	Lens of pea gravel in henge ditch 12
65	Pit	Shallow pit in Trench 2
66	Fill	Fill of pit 65
67	Fill	Fine pea gravel fill in inner henge ditch 55 associated with charcoal
68	Fill	Gravelly silt upper fill of inner henge ditch 55
69	Layer	Brown loam layer between inner and outer ditch in Trench 2
70	Pit	Pit in centre of henge sealed beneath turf mound 14
71	Pit ?	Possible pit in N corner of Trench 2, identified by layer 30
72	Fill	Fill of pit 71

Drawings Register

No	Scale	Contexts	Sheet No.	Comment
1	1:20	Trench 1	1	Pre-excavation plan of Trench 1
2	1:20	Trench 2	2	Pre-excavation plan of Trench 2
3	1:20	Trench 3	3	Pre-excavation plan of Trench 3
4	1:20	Trench 2	4	NW facing section of Trench 2
5	1:10	19 & 31	3	NW facing section through post pipe 31and pit 19
6	1:20	19 &31	5	Intermediate plan post pipe 31 & pit 19

7	1:20	19 &31	6	Post-excavation plan of post pipe 31 & pit 19
8	1:20	Trench 2	7	Ditch section
9	1:20	19	8	Post-excavation plan of pit 19 Trench 3
10	1:20	50	9	Intermediate plan of pit 50 Trench 1
11	1:10	54	1	Half section of post pipe 54
12	1:20	Trench 1	1	Trench 1 section
13	1:20	Trench 3	3	Trench 3 section
14	1:10	26	4	Pit section East-West
15	1:20	Trench 3	10	Trench 3 final plan
16	1:20	Trench 3	11	Trench 3 intermediate plan (central section)
17	1:20	Trench 1	12	Trench 1 final plan

Pottery catalogue

Context	Find No	No sherds	Weight (g)	Comment
101	15	121		Prehistoric pottery

Samples catalogue

Find No	Context	Material	Number of bags	Comment
100	5	charcoal		Small charcoal sample from base of context 4
102	41	soil	8	Bulk sample of secondary fill of ditch 12
103	32,34,35,36	soil	5	Bulk sample of post pipe 31 within pit19
104	34	soil	1	Bulk sample – tertiary fill of context 31
105	34	soil	1	Sub sample – tertiary fill of context 31
106	35	soil	1	Bulk sample - secondary fill of context 31
107	35	soil	1	Sub sample -secondary fill of context 31
108	36	soil	1	Bulk sample – primary fill of context 31
109	36	soil	1	Sub sample -primary fill of context 31
110	33	cremation	1	Cremation
111	20	soil	1	Bulk sample pit 19
112	20	soil	1	Sub sample pit 19 backfill
113	51	soil	1	Bulk sample post pipe 54 tertiary fill
114	51	soil	1	Sub sample post pipe 54 tertiary fill
115	52	soil	1	Sub sample post pipe 54 secondary fill
116	52	charcoal	1	Charcoal sample
117	57	charcoal	1	Charcoal rich sample from context 57
118	41	charcoal	1	Charcoal from henge ditch
119	46	soil	1	Sample of humic layer in base of pit 26
120	46	soil	1	Sample of humic layer in area of pottery
121	47	soil	1	Sample from base of pit 70
122	57	charcoal	1	Charcoal from palisade slot

APPENDIX 2

POST-EXCAVATION RESEARCH DESIGN

Summary of proposals

The preliminary assessment of the site archive has now been completed according to the *Management of Archaeological Projects* (English Heritage, 1991), and an interim report has been produced summarising the results from the excavation (see main report).

Assessment of archaeological potential

The results from the preliminary assessment have demonstrated that the site archive has considerable potential for revealing significant information which could aid the interpretation of the site and further advance the understanding of occupation in the region during the prehistoric, medieval and post-medieval periods. The research potential is summarised below:

Site archive

The drawn and written record contains the primary data relating to the site and further analysis will be required to integrate these data with information from the artefactual record in order to produce a phased model of the archive. The general lack of stratagraphic sequences means that the dating and relationship of features will depend to a large extent on radiocarbon dating and artefactual evidence, and the integration of this information with the drawn and written record is crucial to the understanding of the site as a whole.

Artefactual record

The excavations produced very few artefacts which are summarised in Appendix 1, but including the fragmented remains of a Beaker from a pit cut into the turf mound. The pottery is very diagnostic and a specialist report has already been completed.

Cremated bone

The cremation recovered from the backfill of a posthole in Timber Circle I has considerable potential and will require detailed analysis by a specialist to determine the number and sexx of individuals.

Radiocarbon dating

Charcoal samples were taken from the henge ditch and palisade trench, and from one of the timber circles. Radiocarbon dating of a number of samples from key contexts has the potential for complementing the artefactual evidence and assisting with phasing the site, particularly in relation to the phasing of the henge.

Palaeoenvironmental record

A number of bulk samples were taken from contexts likely to preserve palaeoenvironmental remains in the form of pollen and plant macro fossils, including the henge ditch and postholes from both timber circles. Specialist analysis has the potential for providing information on the fauna and flora of the site and its environs which will be of regional importance.

Conservation

The Beaker pottery will require conservation to stabilise the fabric and ensure its future survival.

Proposed work programme

The anticipated work programme includes the following elements:

1 *Administration*
Project management, the production of a summary report for *Archaeology in Wales 2007*, and the updating of the CPAT website.

2 *Site Archive*
More detailed studies of the drawn and written records, integrating dating and artefactual evidence, to produce a phased interpretation of the archaeology.

3 *Artefact analysis*
The only outstanding specialist report is an analysis of the cremated bone, to be undertaken by Dr Ros Coard, University of Wales Lampeter.

4 *Radiocarbon dating*
The submission of up to four samples for radiocarbon dating at Beta Analytic Ltd, London. The charcoal will identified by Astrid Caseldine, University of Wales Lampeter, prior to submission for dating.

5 *Palaeoenvironmental analysis*
Samples were recovered from a number of significant contexts which may provide palaeoenvironmental data relating to the site and its environs. A preliminary assessment of the samples will be undertaken by Astrid Caseldine, University of Wales Lampeter, to determine the potential for further studies of pollen and macrofossil remains.

6 Conservation
The Beaker will be conserved and possibly reconstructed for display. Conservation will be undertaken by Phil Parkes, Department of History and Archaeology, University of Wales College Cardiff.

7 *Publication*
Production of final excavation report, written by the excavator, Nigel Jones, for publication in *Montgomeryshire Collections*.

8 *Archive*
Deposition of site archive with HER and finds with a Powysland Museum, Welshpool.

Proposed timing

To be completed by the end of March 2009.

End products

1 Publication in an appropriate regional or national journal.

2 Summary report for *Archaeology in Wales 2007*

3 Summary report on CPAT website

4 Site archive deposited with HER

5 Artefacts deposited with museum