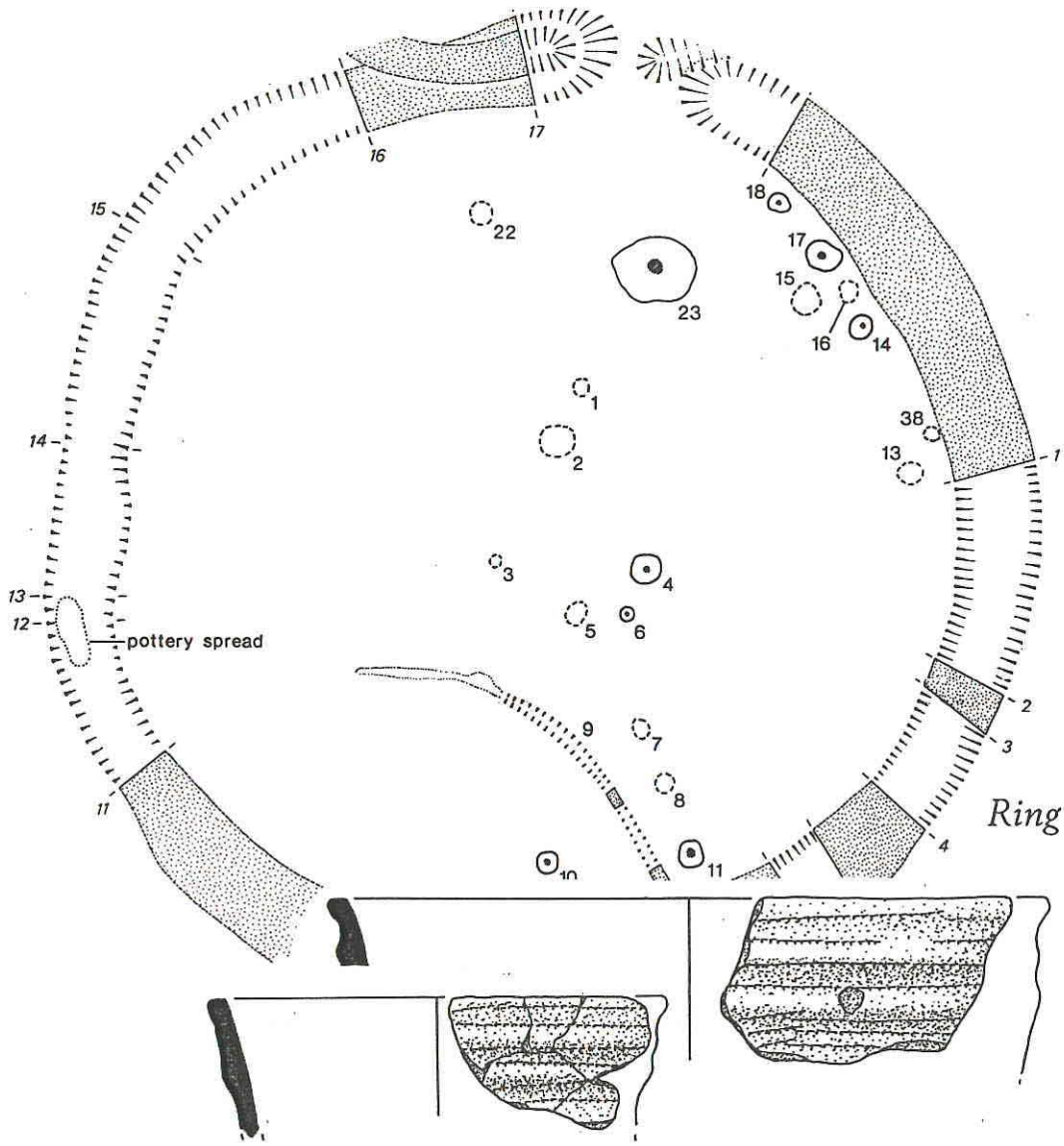
THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

Excavations at Coed-y-Dinas, Welshpool, Powys, February 1992



Ring Ditch 1

CPAT Report No 65

CPAT Report No 65

Excavations at Coed-y-Dinas, Welshpool, Powys, February 1992

by A M Gibson
May 1993

Report prepared for Sir Alfred McAlpine Construction Ltd

The Clwyd-Powys Archaeological Trust
7a Church Street Welshpool Powys SY21 7DL
tel (0938) 553670, fax 552179

Excavations at Coed-y-Dinas, Welshpool, Powys.
February 1992

INTRODUCTION

In the fields surrounding the cottages at Sarn-y-bryn-caled lies a complex of late neolithic and early bronze age ritual sites comprising a cursus, pit circle and four ring ditches. This cursus complex, of which the site to be described is an integral part, was first discovered from the air by St Joseph of Cambridge University in 1975 and published by him in 1980 (St Joseph 1980). Subsequent air-reconnaissance, principally by Chris Musson, has shed further light on and increased the number of components of the cursus complex. The square terminaled cursus monument (centred on NGR SJ217048) is c.12m wide and c.380m long and aligned NE-SW (fig 1). While barrows and ring ditches are known at various locations up and down the upper Severn valley, a greater concentration of these ritual monuments appears to focus on the cursus and to date three ring ditches (SJ21740499, SJ218480502 and SJ21790485), two horseshoe-shaped enclosures (SJ21550465 and SJ21820481) and a pit circle (NGR SJ21930491) have been identified (fig 1). A further two ring ditches have been identified c.500m NE of the cursus on the farm at at Coed-y-Dinas (SJ22200529 and SJ21980530). These last two monuments form the basis of this report. In addition, a fragment of Beaker pottery has been recovered from the ploughsoil near the centre of the field to the NW of the Sarn-y-bryn-caled houses (fig 4, inset).

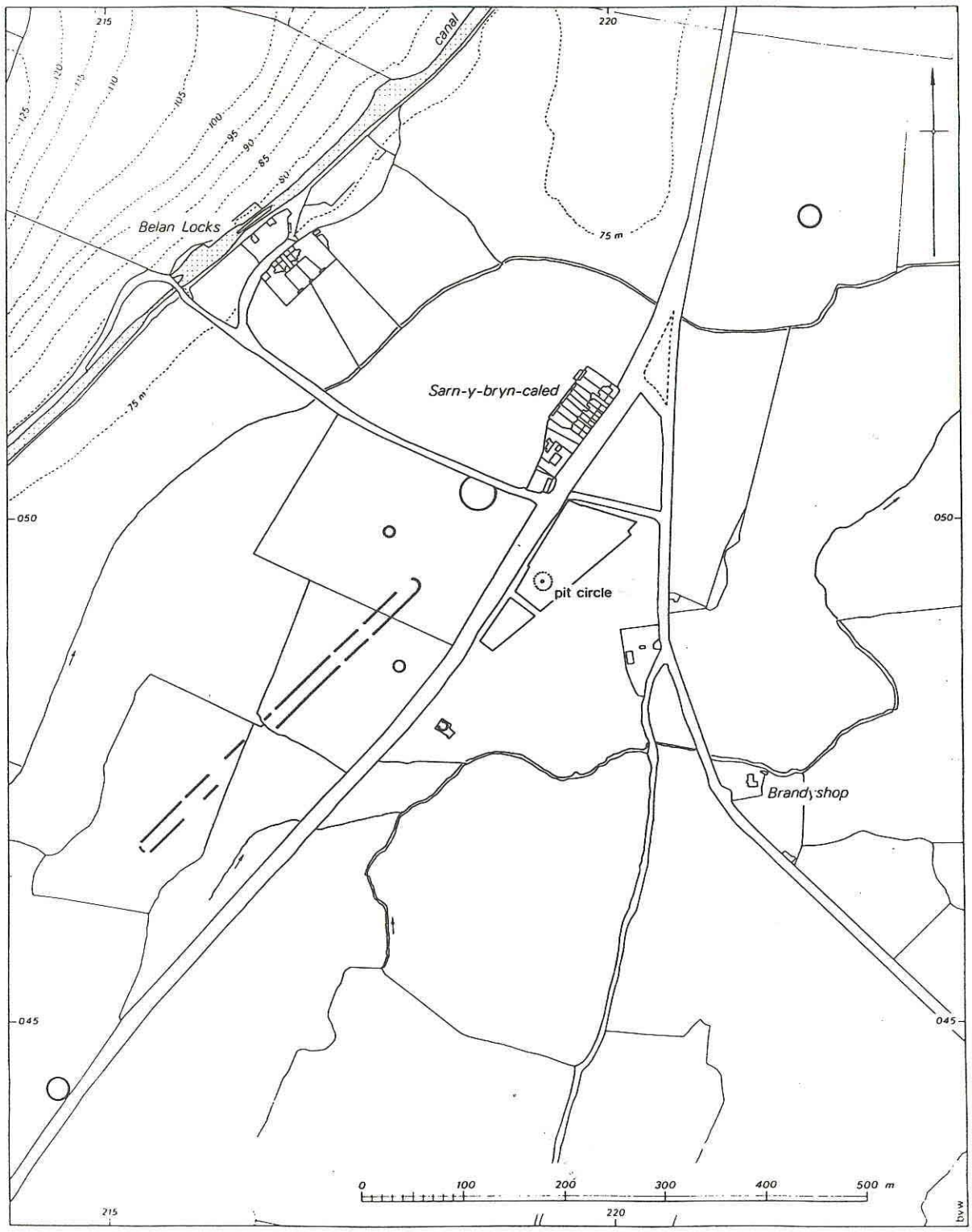


Fig.1: The cursus complex at Sarn-y-bryn-caled, Welshpool.

Rescue excavations (26th Feb 1992-27th March 1992) by members of The Clwyd-Powys Archaeological Trust (CPAT), under the direction of the writer, were mounted in response to a planning application for gravel extraction in the area of Coed-y-Dinas to the NW of the cursus. The gravel extraction was to provide raw materials for the Welshpool relief road construction. These excavations were finaced by Alfred McAlpine Construction Limited.

The site location

The cursus complex lies on the floor of the broad valley of the River Severn. It is situated on a gravel tongue which juts out into the present floodplain and is bounded on the east by old river channels which were probably still active c.2000 years ago (inf Lewin). The exact course, or courses, of the River Severn at the time that the cursus complex was in use, around 5000-4000 years ago, have yet to be located.

The Excavations

The ring ditch, PAR 3965, lay c.500m NE of the northern cursus terminal and may be justifiably included within the cursus complex. The site, like the others so far described, lay on the edge of the first gravel terrace which sloped steeply down to the present flood plain of the River Severn. The site (NGR SJ223053) was discovered from the air by Prof. St Joseph in 1975 (CUCAP photograph No. BUH 007). Generally underlying grass, the site has not been photographed since (inf Chris Musson). Traces of a second ring ditch to the west of this site and intersecting with it are faintly visible on the aerial photograph. The site had been completely razed by modern and medieval ploughing and no trace of a bank or mound was detectable on the surface. This

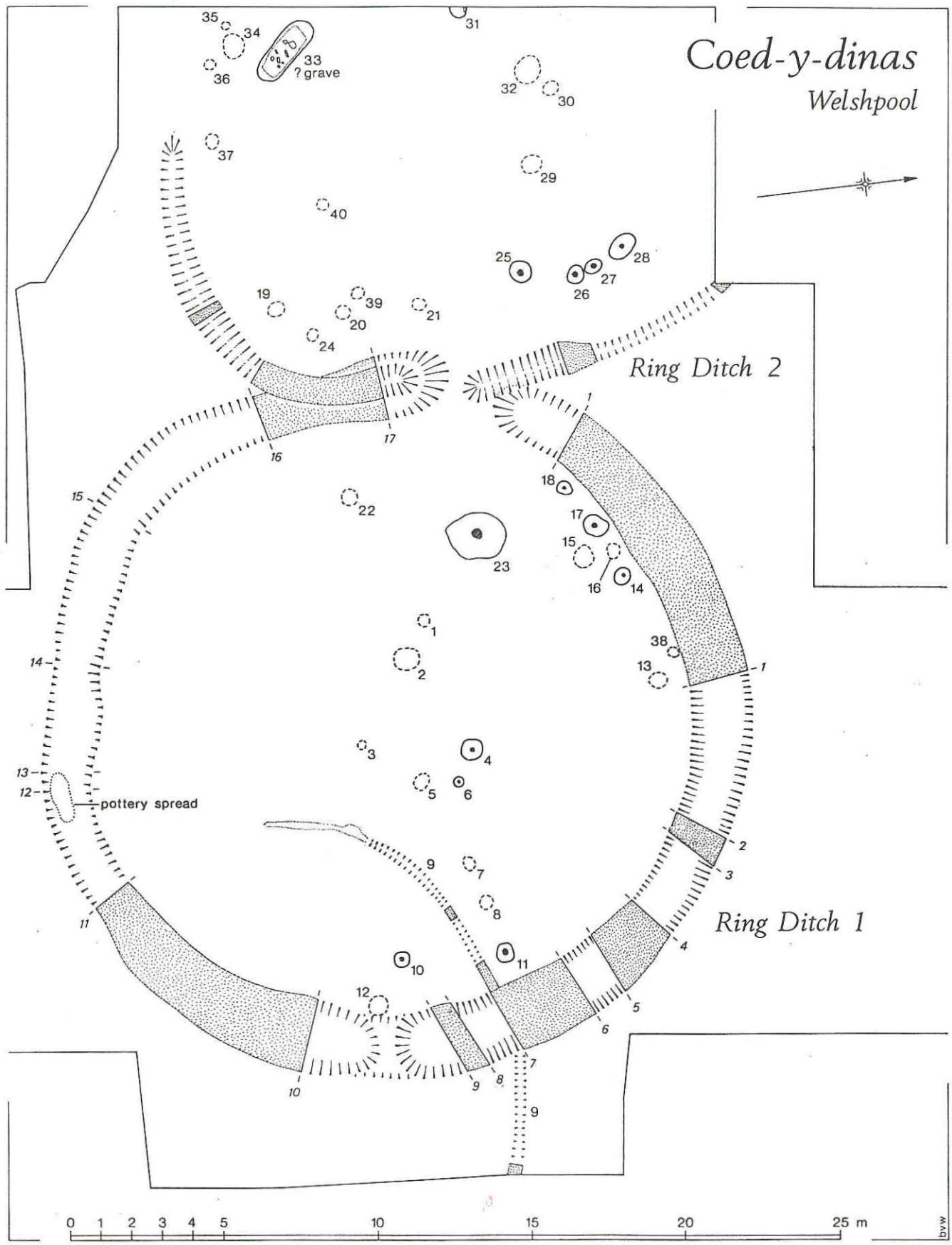


Fig. 2: The Coed-y-Dinas ring ditches. Features revealed by excavation.

erosion was greatest on the south side of the ring ditch where the natural gravel started to slope steeply down to the flood plain.

The site was mechanically stripped to the gravel surface which lay directly below the modern and medieval plouughsoils. This overburden varied between 0.30 and 0.50m deep. The gravel surface itself was scored by medieval furrows. The site was then cleaned by hand and random sections were cut across the ditch and recorded (fig 3). All recognisable features were first half-sectioned and then competely excavated. In the remainder of the time available, more of the ditches were excavated by hand but it was not possible to completely excavate the full circumference. Other than from a pottery spread low down in the ditch silts in the southern arc of the ring ditch (fig 2) finds were few and comprised small sherds of pottery (fig 4).

Ring ditch I

Ring ditch I, the site clearly visible on the aerial photographs, proved to be about 19m in internal diameter with a substantial ditch about 2m across at the gravel surface and surviving to upto c.0.9m deep below the gravel. The site had clearly been truncated and the angle of gravel lenses in the northern sections suggested that up to 40cm of ditch fills may have been lost. This truncation increased towards the southern arc of the site wehere upto 1m of the gravel surface may have been eroded. Resulting from this erosion, no features were located in the southern half of the interior (fig 2).

The ditch was steep-sided and flat-bottomed and seems to have silted naturally with no obvious signs of deliberate in-filling or recutting. A fine-fractioned sandy clay overlay the primary gravel silts in each of the recorded

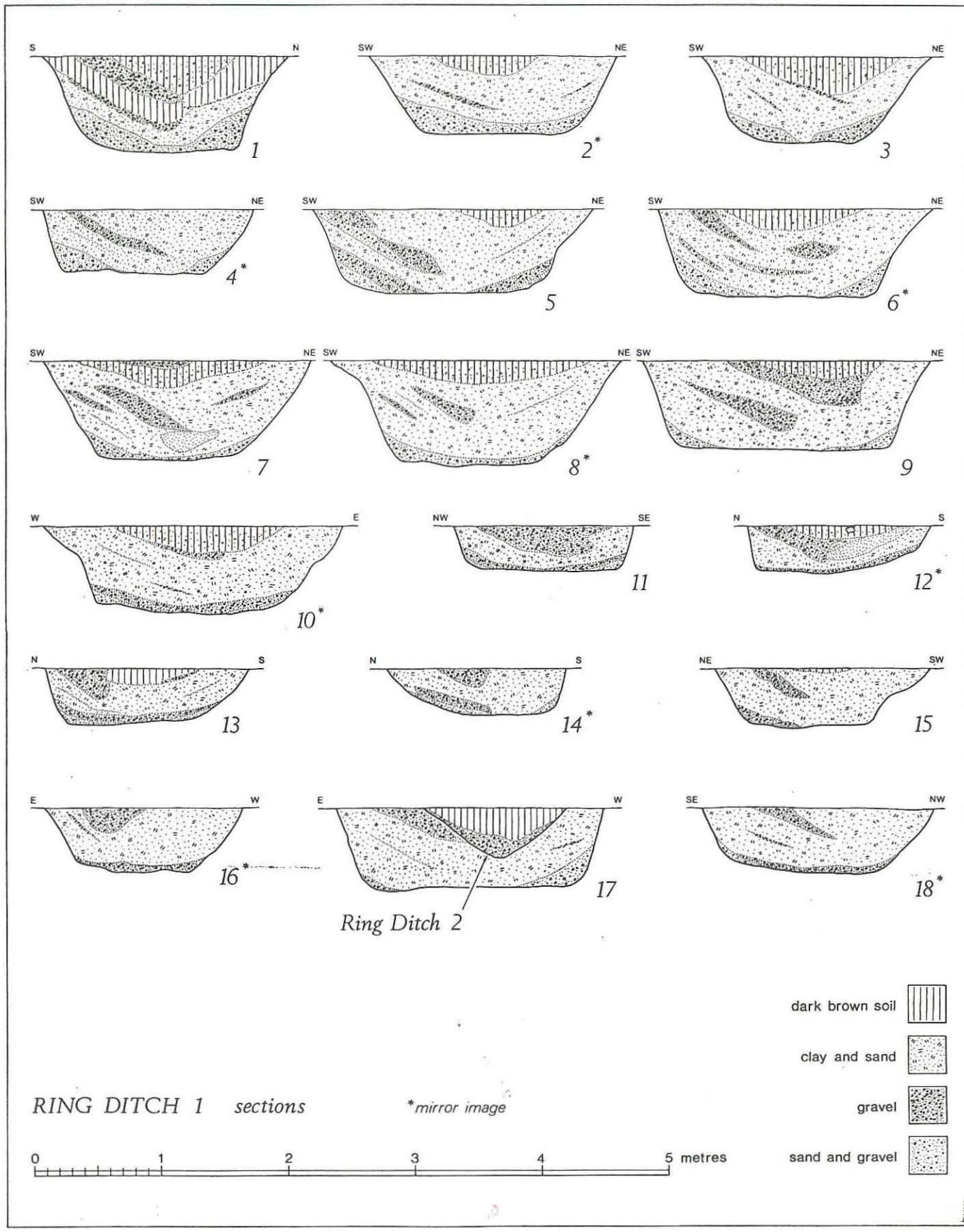


Fig.3: Coed-y-Dinas, sections through the ring ditch.

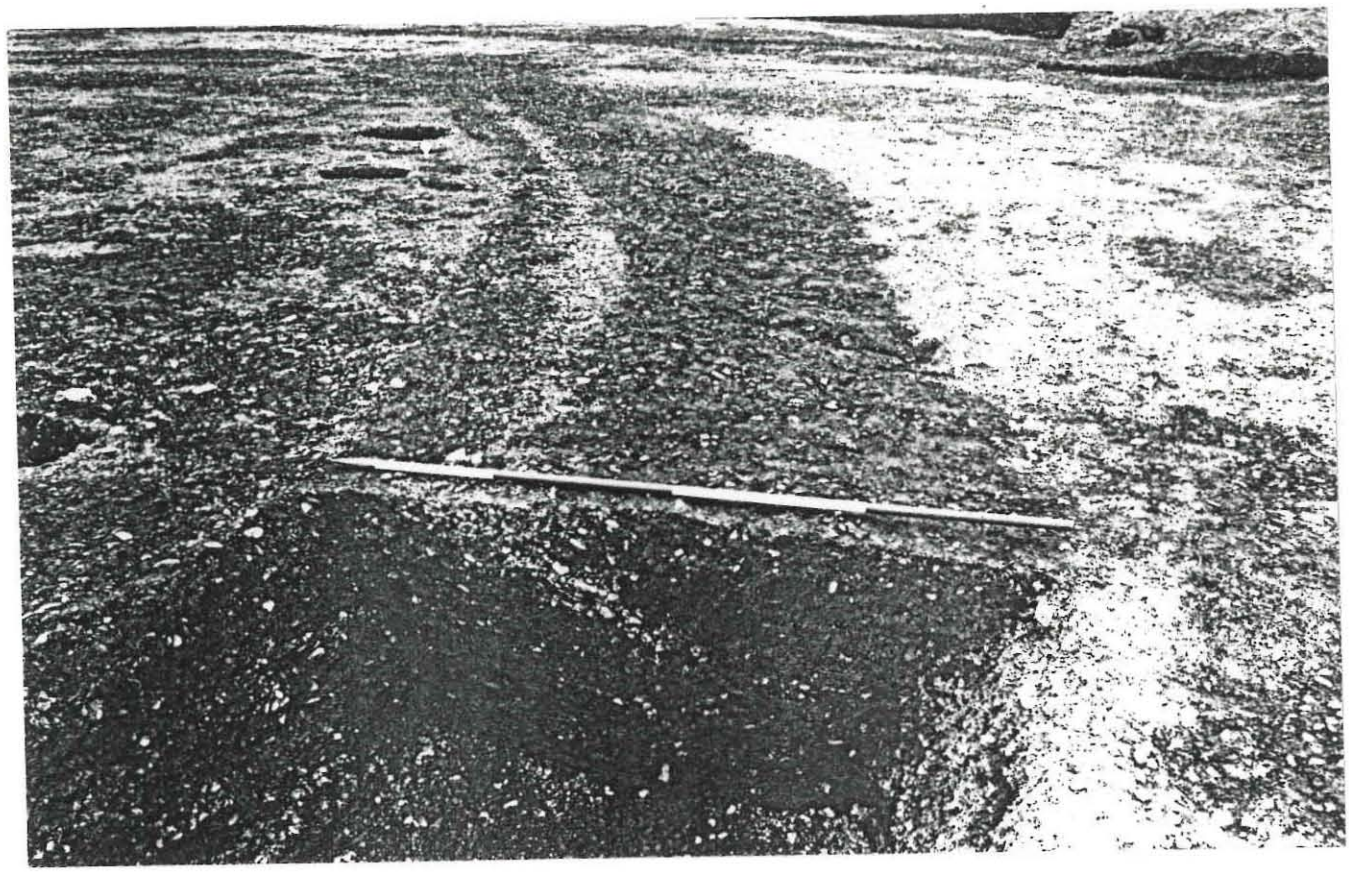


Plate 1: **Ditch profile with evidence for truncation and filling from the interior. Ring ditch 1.**

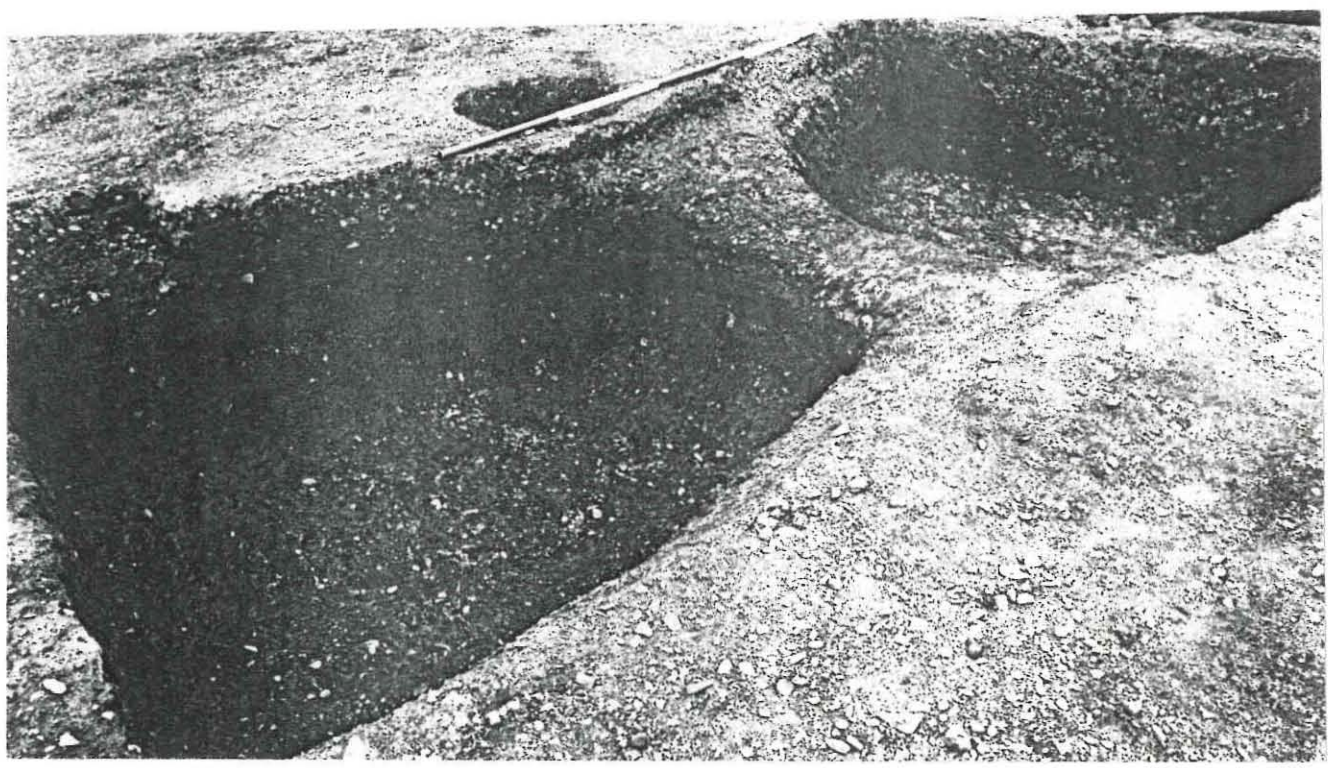


Plate 2: Incomplete causeway in the eastern arc of Ring-ditch 1

sections indicating a slow silting process. Lenses of coarser gravel and gravelly sand were located within the sandy-clay silts and show clearly that

there had been marked silting from the interior of the site suggesting the former presence of an internal bank or mound. A final fill of dark brown ploughsoil in the uppermost surviving ditch levels probably represents the agricultural levelling of the site which, at the time of the medieval ploughing, must still have survived as a slight earthwork.

Two causeways, almost diametrically placed, were located in the main ditch (fig 2). The first, opening WNW, was about 2m wide and flanked by rounded ditch terminals. The causeway does not appear to have been marked in any way although a large posthole was located about 4.5m inside the monument (see below). The second causeway, in the east, was only partial, the ditch appearing continuous at the gravel surface. The ditch 'terminals' were encountered approximately 50cm below the surviving top of the ditch. The causeway clearly could not have acted as a formal entrance and may just reflect the method of ditch construction. It is possible that other such causeways may have survived in the unexcavated ditch sections although none were encountered in the substantial excavated stretch of the southern arc.

Finds, which were almost exclusively ceramic, were without exception recovered from the sandy-clay ditch silts and were sparsely distributed round the excavated sections. The exception to this rule was the location of a deposit of pottery and charcoal in the southern arc of the ditch (fig 2) though once more it was located within the sandy-clay silts. The material appears to have been deposited in the ditch at an early (though not immediately primary) phase in the site's history.

Internal features were devoid of finds or datable material. As mentioned above, plough erosion had removed traces of all features in the southern half of the site, and those that survived in the north were generally shallow (fig 2). Features 1-3, 5, 7, 8, 12, 13, 15 and 16 were all shallow, bowl-shaped pits of unknown purpose and generally filled with a light orangey-pink sand.

The other features are all postholes with post-pipes visible in their fills.

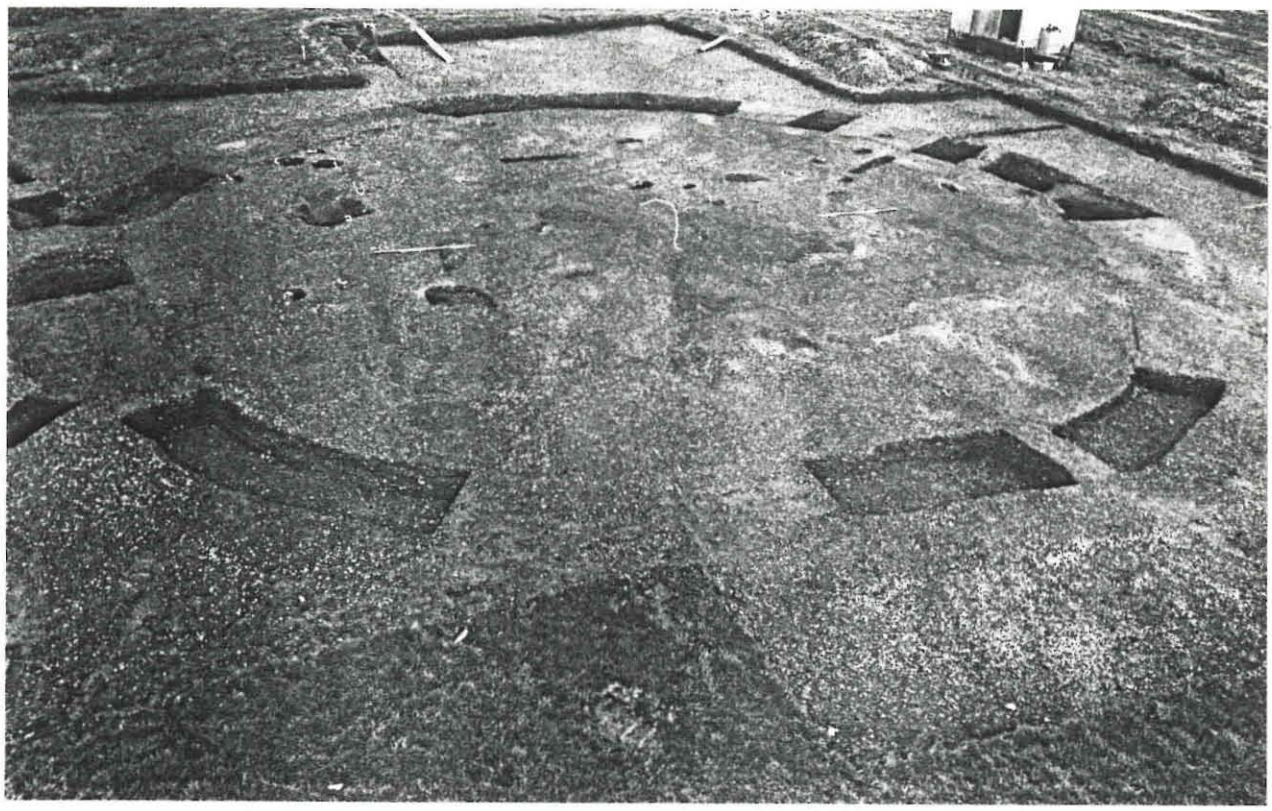


Plate 3: Elevated view of ring ditch 1

They were generally shallow and poorly preserved. No pattern to the postholes is immediately obvious with the exception that they tend towards the perimeter of the interior. Posthole F23 was the most substantial feature to be located other than the ring ditch. The posthole was 70cm deep and the postpipe indicates a post c.40cm in diameter. Fll was also substantial, excavated to a depth of 90cm though the bottom of the feature was not reached. This posthole, with vertical sides and narrow (c.50cm) diameter might suggest that it is comparatively modern and mechanically excavated. The post pipe indicates a post of c.20cm diameter.

No trace of the covering bank or mound survived and the only evidence for an internal feature is the silting pattern in the ditch which consistently

shows that silting was from the interior. If covered by a mound, then the central features would certainly have been covered by it but it cannot be demonstrated if these features were associated with the ring ditch or if they were much earlier. The postholes on the inner perimeter of the ditch may well be associated with the monument. They are at a consistant distance from the ditch edge and, when allowances are made for the truncation of features, they may have originally been closer to the inner edge of the ditch than they presently appear. Presumably they occupied a berm between the internal mound/bank and the ditch and may even have acted as retainers for mound/bank material.

Ring ditch 2

Ring ditch 2 was located to the west of ring ditch 1. It was only partially excavated though the full circumference could be traced during the gravel extraction. The site also lacked the regular circularity of the larger monument.

Ring ditch 2 cut ring ditch 1 and is therefore later in date. In the only recorded section where the two ditches are visible (fig 3 section 17) it would appear that ring ditch 1 had silted almost completely before ring ditch 2 was constructed.

Plate 4: Elevated view of ring ditch 2 and its intersection with ring ditch 1

A radiocarbon date of 195-95 BC (BM-2838, calibrated to 1 sigma) was obtained from charcoal from F25 which appeared to be associated with ring ditch 2. This date, however, ocurring in the later Iron Age is apparently two millennia too late for the ring ditch and extends the chronological depth of human activity on the site. It can perhaps be compared with the contemporary iron age activity at the nearby timber circle.

F9

Traces of a third ring ditch represented by the shallow, truncated curving ditch F9 were located in the eastern part of the site (fig 2). This feature was very shallow, no more than 20cm deep, and other than a small sherd of undecorated Beaker pottery, there were no datable artefacts from this feature. F9 was clearly cut by and is therefore earlier than ring-ditch 1 and has suffered from the same processes of attrition as has the southern portion of the main site.

The pottery from Coed-Y-Dinas

Apart from a small fragment of Beaker from the ditch F9, the pottery from Coed-y-dinas is from ring ditch 1 and, with the exception of a single tentatively identified Grooved Ware sherd (vessel No 37 below), is exclusively Beaker. The majority of sherds come from a concentration in section 9 in the southern arc of the site from immediately above the rapid primary ditch silts. The fabric is macroscopically uniform making the allocation of sherds to individual vessels difficult. The fabric is generally abraded, pink externally with a dark core and darker (grey-brown) inner surface. Occasionally the sherds are pink throughout. Inclusions are finely crushed and rarely break the surfaces. Few technological indicators are visible though a few ring breaks can be detected.

Catalogue Sherds marked * are illustrated

1 Ditch section 9, 12 sherds (15gm). Undecorated sherds from a thin-walled (7mm max) vessel. Possible traces of a cordon.

2* Ditch section 9, 28 sherds (119gm). Sherds with burnished or abraded outer surfaces and decorated with short (?)horizontal lines of deep comb impressions. Include three undecorated base fragments with a diameter of c.7cm. The fabric is upto 8mm thick. Some ring breaks are detectable.

3* Ditch section 9, 3 sherds (17gm). Rimsherd with rounded everted rim and two horizontal external cordons. A horizontal line of faint comb impressions is detectable below the rim and two lines of the same technique lie below the lower cordon. The fabric is upto 10mm thick and the rim diameter has been c.11cm.

4* Ditch section 9, 7 sherds (32gm). Hard, burnished fabric with a zone of deeply impressed blurred comb impressions. Five horizontal lines of comb are detectable with overlaps in impressions clearly visible sugesting that the comb has been c.35mm long with closely spaced teeth. Ring breaks are visible and the fabric is upto 10mm thick. Similar to No.2.

5* Ditch section 9, 1 sherd (4gm). Sherd in slightly porous fabric with two closely-spaced horizontal grooves.

6* Ditch section 9, 1 sherd (36gm). Sherd in a hard, burnished fabric, similar to 4 above, and with a rounded and everted rim with a slightly flattened top. There are two raised cordons on the outer surface with two encircling comb lines between both the rim and the upper cordon and the upper and lower cordons. Three encircling comb lines are visible below the lower cordon with overlaps in the comb impressions clearly visible. The fabric is upto 10mm thick (between cordons) and the rim diameter has been c.19cm. Similar to No.3 but better fabric.

7* Ditch section 9, 1 sherd (9gm). Very fine sherd with a rounded or slightly flattened rim and two external cordons. The decorative scheme

is as No.6. The fabric is upto 5mm thick and the rim diameter had been in the region of c.12cm.

8* Ditch section 9, 6 sherds (21gm). Sherds from a comb-zoned vessel decorated with a fine-toothed comb. The fabric is upto 7mm thick. Two flat-topped rimsherds in a fine burnished fabric with traces of horizontal comb lines and an external cordon.

9 Ditch section 9, 5 sherds (19gm). Base and wall sherds.

10* Ditch section 9, 2 sherds (10gm). From a comb-zoned vessel decorated with a fine-toothed comb with square close-set teeth. One sherd exhibits a diagonal line of light incision below which are 6 horizontal lines of comb impressions. The other has a zone of comb cross-hatching (?)above which are three lines of comb impressions. The fabric is upto 6mm thick.

11* Ditch section 9, 1 sherd (11gm). Thin-walled comb-zoned Beaker. Simple rounded rim with external cordon and five horizontal lines of blurred comb impressions. The fabric is upto 8mm thick and the rim diameter has been c.15cm.

12* Ditch section 9, 2 sherds (7gm). Thin-walled comb-zoned vessel with a max. of 4 visible deep horizontal comb lines with obvious overlaps. The fabric is upto 8mm thick.

13 Ditch section 9, 1 sherd (4gm). Three comb lines visible. Fabric upto 8mm thick.

14 Ditch section 1, 1 sherd (2gm). Three comb lines made by a comb with small rounded teeth. Fabric upto 6mm thick.

15 Ditch section 2, 2 sherds (7gm). Very abraded sherds displaying upto 3 comb lines. Fabric upto 8mm thick.

16 Ditch section 9, 1 sherd (4gm). Very abraded base angle with 2 possible comb lines. Fabric 6mm thick at wall.

17* Ditch section 9, 1 sherd (14gm).Hard, burnished sherd with 5 horizontal lines of deep comb impressions. The comb has been clogged with clay so that the teeth impressions are just visible on the base of the lines which otherwise resemble incision. Fabric upto 10mm thick, vessel diameter c.15cm.

18* Ditch section 9, 3 sherds (46gm). Hard, burnished with abundant grog inclusions and with short vertical scratched lines almost resembling pseudo-cord. The fabric is upto 10mm thick.

19* Ditch section 8, 1 sherd (7gm). Single line of round-toothed comb impression visible below a single deep (?)fingernail impression. fabric upto 9mm thick. From near the base angle. Ring break detectable.

20* Ditch section 9, 1 sherd (8gm). Hard burnished fabric decorated with vertical and diagonal fingernail impressions. Fabric upto 9mm thick.

21* Ditch section 9, 1 sherd (22gm). Undecorated rim, abraded, rounded and everted with well-defined external raised cordon. Fabric upto 9mm thick. Rim diameter c.15cm.

22 Ditch section 9, 4 sherds (13gm). Undecorated rim similar to 21 but burnished. One shoulder/cordon sherd. Similar in fabric to No.18.

23 Ditch section 9, 1 sherd (16gm). Undecorated base angle in slightly "gritty" fabric 8mm thick at top of wall.

24* Ditch section 9, 3 sherd (68gm). Base inc angle with a single FN impression. Base diameter c.11cm. Fabric 9mm thick at wall.

25* Ditch section 9, 1 sherd (11gm). Base sherd in hard well-fired fabric upto 8mm thick.

26 Ditch section 9, 2 sherds (5gm). Wall sherds with crazed surfaces. Fabric upto 9mm thick. One sherd has faint (?)horizontal and diagonal comb impressions.

27 Ditch section 8, 1 sherd (20gm). Base sherd upto 14mm thick.

28 Ditch section 9, 1 sherd (9gm). Abraded wall sherd with two (?)FN impressions/ short incisions.

29 Ditch section 9, 1 sherd (2gm). Everted rim sherd with traces of diagonal and deeply impressed comb impression. Upto 9mm thick.

30 F23, 1 sherd (2gm). Undecorated wall sherd with crazed outer surface upto 5mm thick. Similar to No.26.

31 Ditch section 8, 1 sherd (2gm). Thin wall sherd (upto 6mm), perhaps from near base with single small oval impression.

32 Ditch section 1, 1 sherd (6gm). Undecorated base sherd upto 9mm thick.

33 Ditch section 9, 1 sherd (3gm). Undecorated wall-sherd with traces of a cordon. Upto 6mm thick (avoiding cordon).

34 Ditch section 10, 1 sherd (2gm). Body sherd with 2 converging incisions. Upto 8mm thick.

35 Ditch section 3, 1 sherd (3gm). Wall sherd with single incised line. Upto 7mm thick.

36 Ditch section 9, 1 sherd (4gm). Wall sherd with (?)raised knob/broad grooving/fingertip rustication.

Grooved Ware

37 Ditch section 9B, 1 sherd (3gm). Single badly abraded body sherd with only slight traces of the outer surface remaining. The fabric is quite soft and friable, slightly voided and black throughout with grog inclusions. Traces of a broad scored "groove" are just visible on the remaining outer surface. 16mm thick.

In addition to the above vessels, a total of 33gms of other small fragments of Beaker pottery derive from the following contexts (all from immediately above rapid primary silts unless otherwise stated):

Ditch Section 1 (uppermost fill)	1gm
Ditch section 1	5gm
Ditch section 9	24gm
F 9 (clay fill)	3gm

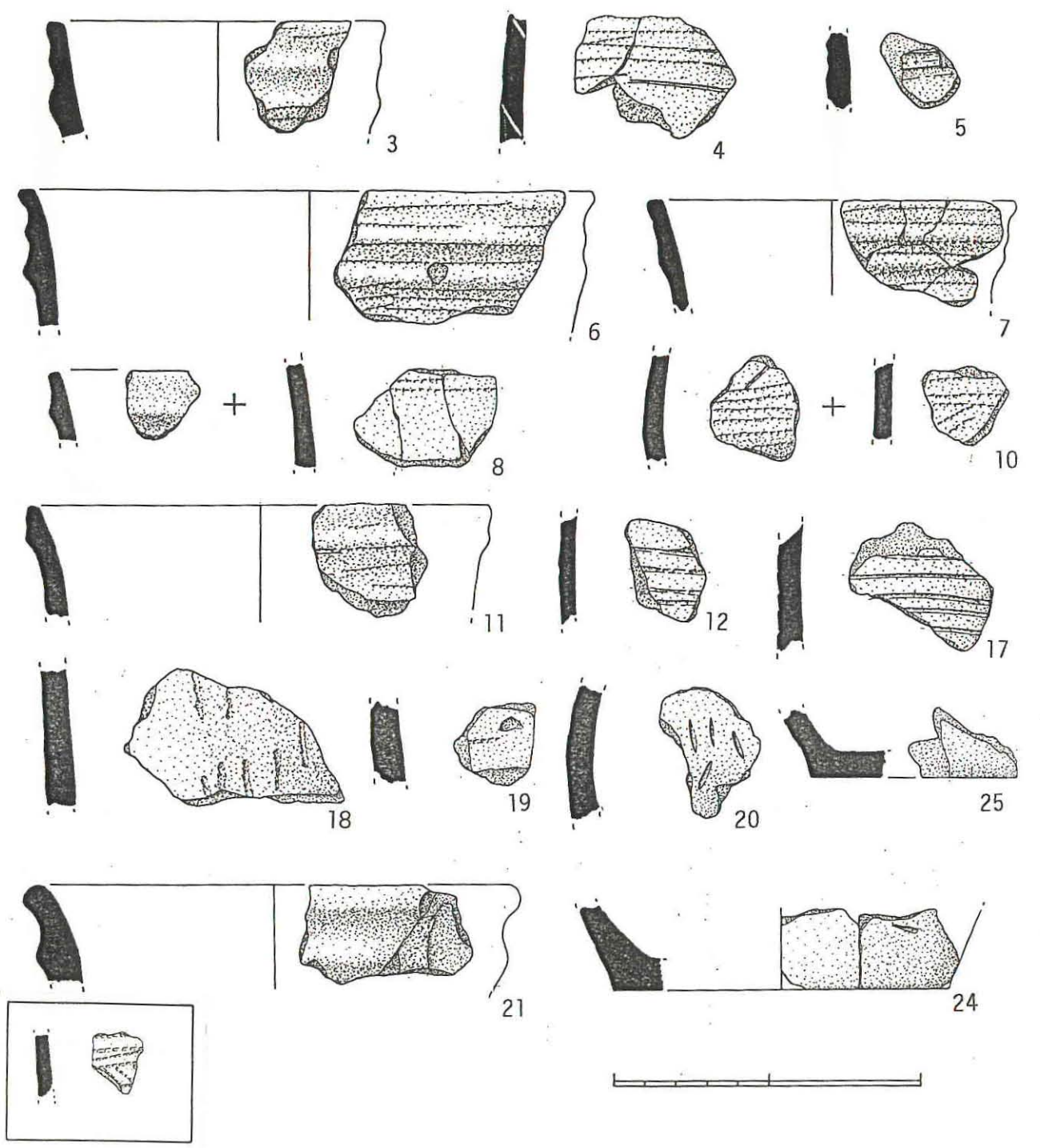


Fig.4: Pottery from Coed-y-Dinas and Sarn-y-bryn-caled (inset). Scale = 10cm.

Discussion of the Pottery

The Grooved Ware sherd (No 37) is only a tentative identification but its soft open fabric differs markedly from the thin well-fired Beakers and compares favourably with the Grooved Ware assmblage from Trelystan (Britnell 1982) some 3km to the East. This is the first Grooved Ware to be recognised from the cursus complex and, so far, from the upper Severn Valley.

Thirty six Beakers have been tentatively recognised from the 102 sherds and smaller fragments recovered from the excavation. The majority of vessels come from ditch section 9 with other isolated sherds from elsewhere in ring ditch 1. Only two sherds were found in the fill of F9, the primary ring ditch on the site and there were no sherds at all from ring ditch 2.

A range of c.16 comb decorated vessels compares with 8 undecorated, 4 incised/scored 1 impessed and 5 fingernail decorated vessels. Cordoned rims are common (8) including 3 with double cordons. Three comb-zoned (as opposed to AOComb) vessels can be positively identified. There are no instances of degenerate fabric or heavy fingertip or plastic rustication (with the possible exception of No.36). Vessels 2 and 20 represent the poorest quality decoration yet are in good quality fabric.

The absence of reconstructable vessel profiles or decorative schemes makes the allocation of vessels to particular styles rather difficult. The quality fabric, cordonned rims and well-defined comb impressions may suggest stylistically early vessels, perhaps step 4 of Lanting and van der Waals's scheme (1972). This stylistic attribution may have little absolute chronological relevance (Kinnes, Gibson et al. 1991) and is not in disagreement with the rather late C14 date of 3630+45 BP (BM-2837) from mixed short-lived charcoal associated with the main ceramic concentration.

A domestic origin has been suggested for the charcoal (appendix 1) and the seeds (appendix 2) and the degree of abrasion, preservation and fabric

range of the pottery might similarly suggest a domestic origin (Gibson 1982) albeit its deposition in a discreet deposit in the southern arc of the ring ditch may have more ritual relevance. With the exception of a sherd of comb-zoned Beaker (fig 4) recovered during field walking to the north of the cursus (Gibson 1990), this is the first site in the cursus complex to produce Beaker pottery although the C14 dates for the timber circle (report forthcoming) suggest at least a concurrency with the usage of Beaker ceramics. The heavily grog-filled fabric of the Food Vessel from the timber circle is coarser than the Coed-y-Dinas material yet remarkably similar in superficial appearance.

Residual Beaker sherds were located in the buried soil below the Trelystan barrows some 3km to the East (Britnell 1982) and the Breiddin some 12km to the North-east (Musson 1991, 117). Residual Beaker and a pit assemblage were discovered at Four Crosses (Warrilow et al. 1986) and another pit assemblage at Collfryn (Britnell 1989). Fine comb-decorated Beakers are present at all these sites as are fingernail rusticated sherds. The Coed-y-Dinas cordonned rims can be paralleled at Four Crosses (Warrilow et al., 1986, fig. 11) and especially at Bromfield in Shropshire 39km to the South-east (Stanford 1982, fig.5). The Bromfield assemblage, like that from Coed-y-dinas, contains both fine, comb-decorated and coarser undecorated cordonned rims as well as some rusticated forms typical of a domestic assemblage (Gibson 1982).

Dates for Welsh Beakers from or derived from apparently domestic contexts are wide-ranging spanning around 6 centuries (table 1) (CAR-767 is disregarded). This is despite a very similar assemblage composition, particularly amongst the Montgomeryshire and Shropshire material. These dates stress the unreliability of charcoal-derived domestic dates already discussed elsewhere (Kinnes, Gibson et al. 1991). The Coed-y-dinas date, from short-lived charcoal and with a comparativly narrow date-range should be reliable falling as it does in the middle of the "Beaker period" though the fragmentary

nature of the material suggests that the assemblage may already have been "old" at the time of its deposition.

Table 1: C14 dates for Welsh "Domestic" Beaker

Site	Date BP	Date BC 1 sigma	Date BC 2 sigma	Lab No.
Coed-y-dinas	3630+/45	2033-1915	2133-2074 or 2049-1880	BM-2837
Collfryn	3790+/-90	2392-2385 or 2338-2119 or 2084-1942	2466-1942	CAR-572
Four Crosses	4190+/-70	2885-2849 or 2825-2654 or 2645-2621	2915-2572 or 2514-2507	CAR-767*
-do-	3690+/-70	2179-2165 or 2142-1953	2281-1884	CAR-810
-do-	3890+/-70	2463-2276 or 2226-2207	2563-2524 or 2501-2139	CAR-811
Brenig 51	3500+/-70	1894-1736 or 1715-1699	2013-2007 or 1977-1670 or 1669-1632	HAR-803
Nant Maden	3520+/-50	1895-1748	1969-1733 or 1723-1688	BM-1113

datasets used:
Pearson, GW and Stuiver, M, 1993.
*Stuiver, M and Pearson, GW, 1993.

GENERAL DISCUSSION

The recently obtained radiocarbon date from the cursus monument of 3930-2695 BC (OxA-3997, calibrated to 1 sigma) clearly establishes the primacy of this monument in the Sarn-y-bryn-caled/Coed-y-Dinas ritual complex with the Sarn-y-bryn-caled timber circle and the Coed-y-Dinas ring ditch possibly marking the last phases of monument construction in the area almost two millennia later. A further enigmatic iron age presence is attested by radiocarbon dates at both Sarn-y-bryn-caled and Coed-y-Dinas; the former site associated with metallurgical activity.

A growing body of radiocarbon dates from recent excavations (table 2) indicate about 1500 years of ring-ditch construction in the Severen Valley. Phase 1 of site 5 at Four Crosses, Llandysilio (Warrilow et al 1986) c.12km to the north of Welshpool was dated to c.3000 BC with phase 3 at the same site ocurring c.1800 BC. A radiocarbon date of c.1600 BC was obtained from sites 1 and 7 at Four Crosses. Two barrows at Trelystan similarly date to c. 1900 BC (Britnell 1982). Here there was also an enigmatic primary sepulchral phase c.3000 BC and Grooved Ware-associated structural activity c.2850 BC. At both Trelystan and Four Crosses there seems to be a phase of modest barrow/ring ditch construction c. 2000 BC with subsequent enlargement in the early Bronze Age. This sequence can be extended at Site 5 at Four Crosses where a neolithic ring ditch, c.21m in diameter, contracts c.2000 BC to a smaller monument 16m in diameter and then increases in phase 3 to c.26m across. It may be difficult to extend this sequence to the Sarn-y-bryn-caled complex, however since the larger ring ditches (such as PAR 4546) remain unexcavated. The current state of knowledge tends towards a chronological enlargement of the broadly circular monuments; the small penannular enclosure of the middle Neolithic leading to the large diameter sites of the Sarn-y-bryn-caled timber circle and the Coed-y-Dinas ring ditch.

Table 2: C14 dates from Montgomeryshire barrows and cairns

Site	phase	associations	BP	BC(68%)	BC(95%)	Lab No
Four Crosses site 5	I	plain bowl Mortlake bowl	4440+/-70	3303-3233 or 3180-3163 or 3113-2923	3350-2904	CAR-670
			4380+/-70	3091-3055 or 3047-2911	3310-3225 or 3187-3158 or 3129-2881	CAR-707
Four Crosses site 2	TAQ	Beaker	4449+/-41	3292-3278 or 3267-3240 or 3104-3031	3333-3151 or 3145-2922	CAR-767,810,811*
Four Crosses site I			3420+/-70	1859-1846 or 1772-1625	1887-1522	CAR-666
			3310+/-70	1677-1513	1743-1423	CAR-667
Four Crosses Site 5	III	Urn	3390+/-70	1745-1604 or 1558-1539	1878-1831 or 1827-1515	CAR-668
			3510+/70	1913-1739	2020-2002 or 1981-1673	CAR-669
Four Crosses Site 7			3280+/-70	1626-1493 or 1487-1450	1734-1719 or 1689-1409	CAR-848
Lan Fawr	I	Collared Urn	3530+/-70	1936-1745	2032-1990 or 1989-1679	CAR-1037
	TAQ		3330+/-70	1683-1518	1748-1434	CAR-1038
Trelystan Pit			4345+/-65	3032-2890	3258-3245 or 3100-2876 or 2743-2786	CAR-282
Trelystan barrow II	I	Food Vessel	3550+/-65	1948-1853 or 1849-1766	2035-1733 or 1722-1688	CAR-390
Trelystan Barrow I	I	Food Vessel	3750+/-70	2277-2223 or 2207-2034	2397-2378 or 2350-1942	CAR-279
			3645+/-70	2130-2077 or 2046-1899	2195-2151 or 2149-1870 or 1842-1778	CAR-280
			3540+/-65	1940-1749	2032-1990 or 1989-1730 or 1729-1685	CAR-285
			3500+/-60	1887-1739	1967-1676	CAR-278
Trelystan Barrow II	II	FVU	3550+/-60	1944-1857 or 1847-1771	2032-1736 or 1716-1696	CAR-283
			3455+/-70	1877-1834 or 1822-1794 or 1787-1678	1933-1600 or 1566-1530	CAR-277

Site	phase	associations	BP	BC(68%)	BC(95%)	Lab No
Carneddau I	I	Collared Urn	3600+/-70	2031-1991 or 1989-1878 or 1833-1824 or 1791-1789	2137-1745	CAR-1257
	II	Collared Urn	3200+/70	1520-1405	1620-1311	CAR-1255
			3310+/-70	1677-1513	1743-1423	CAR-1256
	III	wristguard	3560+/-70	1973-1857 or 1847-1771	2121-2083 or 2042-1733 or 1722-1688	CAR-1258
		Collared Urn	3440+/-60	1869-1843 or 1776-1677	1888-1603 or 1561-1536	CAR-1260
	IV		3530+/-70	1936-1745	2032-1990 or 1989-1679	CAR-1259
Carneddau II	I	Collared Urn	3380+/-70	1742-1596	1875-1835 or 1820-1798 or 1785-1513	CAR-1285
			3430+/-70	1869-1843 or 1776-1670 or 1666-1634	1896-1524	CAR-1286
Carneddau Ring Bank		Jet bead	3350+/-70	1734-1720or 1689-1522	1860-1846 or 1772-1492 or 1488-1449	CAR-1261

Abbreviations: TAQ - Terminus Ante Quem. FVU - Food Vessel Urn. ± - combined dates.

References for datasets used:

Pearson, GW and Stuiver, M, 1993, Radiocarbon, 35, 25-33.
Stuiver, M and Pearson, GW, 1993, Radiocarbon, 35, 1-23.

It is possible that the fluctuations in monument dimension may refelect population trends. The Sarn-y-bryn-caled cursus was built at a time of major monument construction nationwide. Early neolithic monuments tend to be grand, earthwork sites labour intensive in their construction and visually impressive (Bradley and Chambers 1988). In the later Neolithic, the monument building at Sarn-y-bryn-caled tends towards smaller, perhaps more formalised, ring ditches and henge monuments. These are less labour intensive but nevertheless retain the sanctity or importance of the area in the religious lives of the population. A similar sequence has been postulated for the Dorchester cursus complex (Bradley and Chambers 1988). Renewed activity appears to have occured on a fairly large scale c.2000 BC and the early Bronze Age. At Sarn-y-bryn-caled the timber circle and Coed-y-Dinas ring ditch date to this period. So too does the major monument construction at Trelystan and Four Crosses. Increased cairn construction in upland areas is probably contemporary as is the exploitation of upland environments (Walker 1992) represented in the palynological record by clearance and grazing-associated flora. It does not appear that the population shifted at this time from lowland to upland habitats but nevertheless a population expansion into hitherto unoccupied landscapes seems to be supported by the archaeological data. Elsewhere in Britain, this period saw major monument construction - the Wessex henges, Stonehenge III, stone circles and the larger timber monuments all pointing towards greater prosperity and surplus population.

Acknowledgements

The writer is grateful to the landowners, Powis Estates, and particularly to the Estates Manager Mr B Evans, and to the tennants of Coed-y-Dinas Farm, Mssrs Howard, for their help and co-operation before and during

the excavations. Rob Jones of BJ Aviation assisted at short notice with the aerial photography of the site. Dr D Watkinson, University of Wales College cardiff arranged for the conservation of the pottery and Drs I Kinnes and J Ambers of the British Museum helped arrange the Radiocarbon Dates and assisted with their interpretation and calibration. Graham Morgan, and Caroline Cartwright are to be thanked for the propmt supply of their specialist contributions. The site plans and sections are by Brian Williams. The pottery drawings and site photography are by Alex Gibson.

The excavations and post-excavation work was financed by Alfred McAlpine Construction Ltd and thanks are extended to the Site Agent, Mr J. McKinley for his co-operation throughout the project.

APPENDIX I
THE CHARCOALS FROM COED-Y-DINAS, WELSHPOOL

G.C.Morgan,
School of Archaeology,
The University of Leicester,
University Road,
Leicester.

Sample (weight)	Species	Diam	rings	age	comments
RD1 sect 3 (10g)	blackthorn	10mm	5	5	
	field maple	15	5	5	
RD1 sect 4 (12g)	blackthorn	10	6	6	
	oak frag.	30+			
RD1 sect 9* (92g)	oak	50+	12	25+	
		25	5	10	
	hazel	45	15	20	
	field maple	10	5	5	
	poplar type	40+ frag.			
	rowan type	10	10	12	
	blackthorn	10	5	5	
F23 (12g)	oak frag.	50+			
F25* (30g)	oak	50+	5	20+	
	hazel	30	10	10	worm eaten
	hawthorn	30+ frag.			
	poplar type	30+ frag.			
F26 (8g)	gorse type	15	5	6	
	hazel frag	20+			
F27 (8g)	hazel	20	5	6	
	oak	15	3	4	
		30	5	10	
		40+	8	10+	
	rowan type	10	5	5	
F28 (9g)	oak frag	10+			
	hazel frag	10+			
F32 (20g)	rowan type	10	15	15	
	field maple	10	5	5	
	hazel	10	5	5	
	poplar type	15	6	6	
	gorse type	10	5	5	

* Samples sent for Radiocarbon assay

Species Represented

oak	*Quercus* spec.
hazel	*Corylus avellana*
rowan type	*Sorbus* spec.
poplar type	*Populus* spec. or willow *Salix* spec.
hawthorn type	*Crataegus* spec.
blackthorn type	*Prunus spinosa*
field maple	*Acer campestre*
gorse type	*Ulex* spec.

Hazel should be read as Alder/Hazel, Poplar as Willow/Poplar and Hawthorn type could be *Roaceae* as well.

APPENDIX II

MACROBOTANICAL REMAINS FROM COED-Y-DINAS RING DITCH I

Caroline Cartwright,
Department of Scientific Research,
British Museum,
Great Russell Street,
London, WC1B 3DG

Ring-ditch 1, section 3

A small amount of hulled barley grain (Hordeum vulgare h.).
Indeterminate rhizome fragments of small graminae could also be distinguished in the sample.

F25

A small amount of hulled barley (Hordeum vulgare h.) was retrieved.

F32

Traces of hulled barley (Hordeum vulgare h.) and indeterminate graminae fragments were present.

DISCUSSION

The charred grain derives from contexts above the primary silts of the ditch, broadly associated with Beaker pottery, and from pits and postholes. There is no evidence to suggest that the grain was charred in situ. The assumption may be made that the material has been discarded or deposited in the contexts sampled and is derived from domestic contexts contemporary with the site's main period of use. The small amount of charred grain leaves little scope for discussion of pre-LBA sites in the Severn Valley, but its presence as part of the economic catchment of Coed-y-Dinas is noteworthy. Hillman has signalled the possibility of the presence of traded cereal grain in pastoral communities (Hillman in Britnell, 1982); this possibility remains open for the material under discussion here.

APPENDIX III

THE RADIOCARBON DATES FROM SARN-Y-BRYN-CALED AND THE CURSUS COMPLEX

The Cursus

Context	material	Date BP	Date BC - 1 sigma	Date BC - 2 sigma	Lab No.
Basal silts of E ditch	Charcoal	4960+/-70	3891-3889 or 3796-3662	3946-3636	OXA-3997

The Penannular Ditch

Context	material	Date BP	Date BC - 1 sigma	Date BC - 2 sigma	Lab No.
Lower Recut Fill	Charcoal	4400+/-45	3090-3057 or 3045-2920	3294-3273 or 3269-3239 or 3105-2910	BM-2820
Upper Recut Fill	Charcoal	4200+/-40	2886-2868 or 2805-2768 or 2719-2703	2908-2855 or 2819-2663 or 2633-2628	BM-1819

The Timber Circle

Context	material	Date BP	Date BC - 1 sigma	Date BC - 2 sigma	Lab No.
Inner Post F	Charcoal	3730+/-40	2190-2159 or 2145-2109 or 2089-2038	2274-2252 or 2204-2016 or 2005-1979	BM-2805
Inner Post E	Charcoal	3670+/-40	2129-2079 or 2045-1972	2171-2169 or 2140-1919	BM-2806
Outer Post I2	Charcoal	3660+/-40	2121-2083 or 2042-1950	2138-1903	BM-2807
Outer Post I1	Charcoal	3720+/-40	2180-2165 or 2143-2034	2270-2268 or 2201-1975	BM-2808
Secondary Cremation	Charcoal	3660+/-40	2121-2083 or 2042-1950	2138-1903	BM-2809
Primary Cremation	Charcoal	3900+/-50	2461-2288	2490-2199	BM-2810
Top of central pit	Charcoal	2160+/-60	353- 302 or 207-101	377- 35	BM-2830

The Timber Circle - Average of dates BM-2805-2808

Average Date BP	Date BC - 1 sigma	Date BC - 2 sigma
3695+/-21	2131-2076 or 2047-2032	2047-2032 or 2005-1979

The Outlying Posthole

Context	material	Date BP	Date BC - 1 sigma	Date BC - 2 sigma	Lab No.
Posthole 199	Charcoal	4740+/-35	3624-3571 or 3538-3504 or 3414-3383	3635-3495 or 3464-3375	BM-2829

Coed-Y-Dinas Ring Ditch

Context	material	Date BP	Date BC - 1 sigma	Date BC - 2 sigma	Lab No.
Basal silts of RD 1	Charcoal	3630+/-45	2033-1915	2133-2074 or 2049-1880	BM-2837
Posthole within RD 2	Charcoal	2110+/-40	182- 49	199- 31 or 24- 7	BM-2838

The calibrations were calculated using the University of Washington Quaternary Isotope Laboratory Radiocarbon Calibration Programme (CALIB) Revision 3 (Stuiver, M. and Reimer, P.J., 1993).

References for datasets used:
Stuiver, M and Pearson, GW, 1993, Radiocarbon, 35, 1-23.
Pearson, GW and Stuiver, M, 1993, Radiocarbon, 35, 25-33.

BIBLIOGRAPHY

Bradley, R. and Chambers, R., 1988 A new study of the cursus complex at Dorchester on Thames. Oxford Journal of Archaeology, 7(3) 1988, 271-289.

Britnell, W.J., 1982 Two round barrows at Trelystan, Powys. Proceedings of the Prehistoric Society, 48, 133-201.

Britnell, W.J. 1989 "The Collfryn Hillslope Enclosure, Llansantffraid Deuddwr, Powys: Excavations 1980-1982." Proceedings of the Prehistoric Society, 55, 89-134.

Gibson, A.M., 1982 Beaker Domestic Sites: A Study in the Domestic Pottery of the Late Third and Early Second Millennia BC in the British Isles, British Archaeological Reports No.107, Oxford.

Gibson, A.M., 1990, 'Sarn-y-bryn-caled, Welshpool.' Archaeology in Wales, 30, 53.

Kinnes, I.A., Gibson, A.M., Ambers, J., Bowman, S., Leese, M. & Boast, R. 1991 Radiocarbon Dating and British Beakers: The British Museum Programme. Scottish Archaeological Review, 8, 35-68.

Lanting, J.N. & van der Waals, J.D., 1972 British Beakers as seen from the Continent. Helinium, 12, 20-46.

Musson, C.R. 1991, The Breiddin Hillfort: A Later Prehistoric Settlement in the Welsh Marches. Council for British Archaeology Research Report No76, London.

Pearson, G.W. and Stuiver, M., 1993 High-precision Bidecadal Calibration of the Radiocarbon Time-scale, 500-2500 BC. Radiocarbon, 35, 25-33.

St Joseph, J.K., 1980 Air reconnaissance: recent results 49. Antiquity, 54, 47-51.

Stanford, S.C., 1982 Bromfield, Shropshire - Neolithic, Beaker and Bronze Age sites, 1966-79. Proceedings of the Prehistoric Society, 48, 279-320.

Stuiver, M and Pearson, G.W., 1993 High-precision Calibration of the Radiocarbon Time-scale, AD 1950-500 BC and 2500-6000 BC. Radiocarbon,
35, 1-23.

Stuiver, M. and Reimer, P.J., 1993 Extended 14C database and revised CALIB 3:0 14C Age Calibration Program, Radiocarbon, 35, p. 215-230.

Walker, M.J.C., 1992 'Flandrian vegetation Change and Human Activity in the Carneddau Region of Upland Mid-Wales.' in F.M. Chambers (ed.) Climate Change and Human Impact on the Landscape: Studies in Plaeoecology and Environmental Archaeology., Chapman and Hall, London.

Warrilow, W., Owen, G., & Britnell, W.J., 1986 Eight Ring Ditches at Four Crosses, Llandysilio, Powys, 1981-85. Proceedings of the Prehistoric Society, 52, 53-87.