

**CPAT Report No 1011**

# Penycloddiau Cairn, Flintshire

**ARCHAEOLOGICAL EXCAVATION 2009**



**THE CLWYD-POWYS ARCHAEOLOGICAL TRUST**

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# Penycloddiau Cairn, Flintshire

**ARCHAEOLOGICAL EXCAVATION 2009**

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Report for Denbighshire County Council



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## 1 INTRODUCTION

- 1.1 The Field Services Section of the Clwyd-Powys Archaeological Trust (CPAT) was invited by Denbighshire Countryside Service, part of Denbighshire County Council, to undertake the archaeological excavation of a small cairn within the scheduled area of Penycloddiau Hillfort.
- 1.2 The cairn is presently being eroded by the Offa's Dyke long distance footpath and an evaluation had been undertaken in 2008 to determine the nature, condition and significance of the cairn to inform future management proposals (Grant and Jones 2008). Based on the results from the evaluation, a more extensive investigation was conducted in May 2009, excavating the area of the cairn affected by erosion, prior to its reconstruction.
- 1.3 The cairn is covered by the same scheduling designation as the hillfort (SAM FI009) and scheduled monument consent was obtained from Welsh Assembly Government for the work.

## 2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 Penycloddiau lies on the central ridge, between the Wheeler Valley and the Vale of Clwyd, the latter at this point rising to an altitude of around 440m OD. The summit of the hill, at the northern end of the hillfort, is surmounted by the putative Bronze Age burial cairn that is the subject of this report (SJ 1271367886; Plate 1).

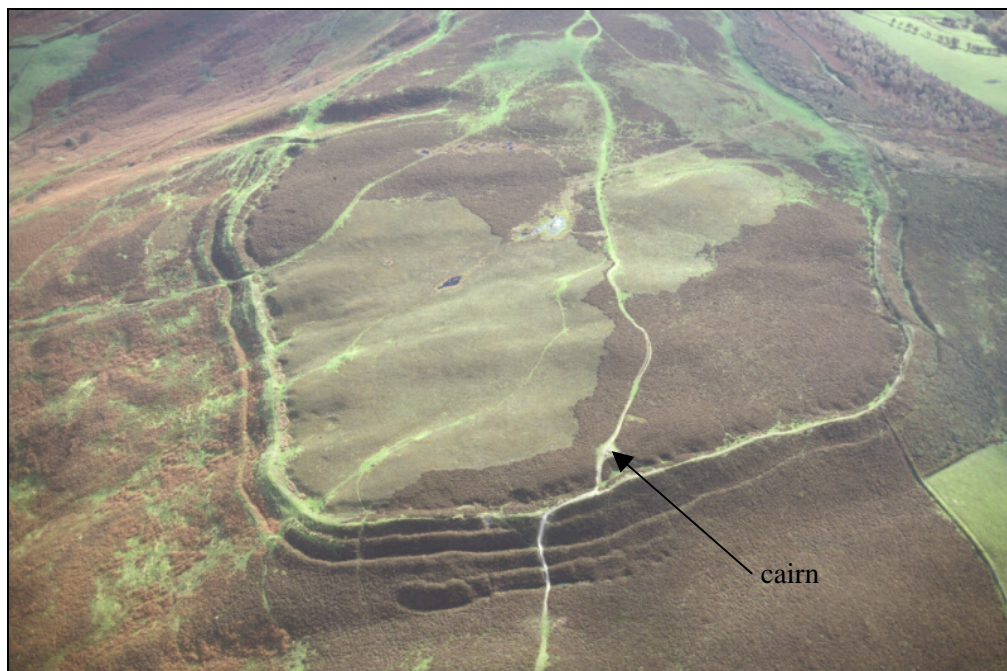


Plate 1 View of the northern end of Penycloddiau, showing the Offa's Dyke footpath and the cairn just inside the ramparts. Photo CPAT 06-c-357

- 2.2 The solid geology of the area consists of Silurian siltstones and mudstones (1994 British Geological Survey map), overlain by well-drained loams and thin peat (1983 Soil Survey of England and Wales map).

### 3 ARCHAEOLOGICAL BACKGROUND

- 3.1 Penycloddiau (PRN 102273; SAM F1009) is one of the largest hillforts in Wales and is the largest of the six hillforts in the Clwydians, lying on the central ridge. The hillfort is multivallate, with a continuous inner rampart and discontinuous outer rampart, together with additional outer defences at the northern end.
- 3.2 The northern end of the hillfort was subject to a total station survey by CPAT in 2000 in connection with erosion control works along the Offa's Dyke footpath, which follows the ridge through the hillfort. Further detailed survey work was undertaken by CPAT in April 2004 over an area of around 7ha within the interior which was affected by a serious heather burn in April 2003 (Jones 2004a). Subsequent aerial reconnaissance by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) helped to define the extent of the heather burning and also revealed the potential for newly revealed features within the interior of the hillfort. A final phase of survey was undertaken in 2006, covering those areas of the hillfort which had not been surveyed previously (Jones 2006).

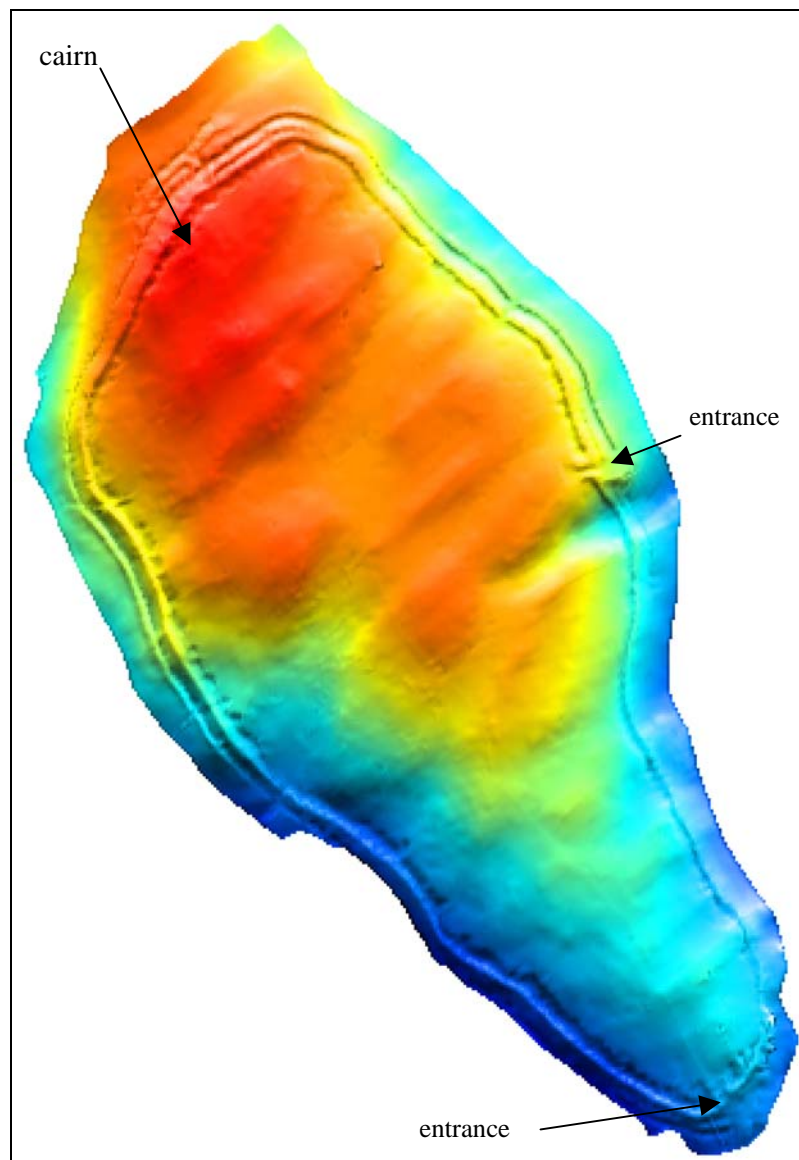


Fig. 1 Digital terrain model of Penycloddiau showing the location of the cairn

- 3.3 The interior of the hillfort occupies 19.8ha, while the circuit of the main rampart extends for 1.93km. The hillfort occupies a prominent position crowning a large hilltop, the axis of which is north-west to south-east, with the highest ground to the north-west. This is depicted clearly on Fig 1 with the blue tones grading through to red as the natural ground level rises, but it should be noted that the gradations are not fine enough to differentiate pick up the low mound of the cairn. Penycloddiau has two original entrances, one at the southern end and the other on the eastern side. Both also appear on Fig 1.
- 3.4 In general the ramparts are fairly well preserved and much of the circuit comprises a single, often very substantial rampart with an internal quarry ditch and an external ditch, sometimes with a counterscarp or lower bank outside the ditch. These defences were augmented with additional banks and ditches in the vicinity of both entrances, as well as where the topography lessened the natural defences of the hilltop. This is particularly so at the northern end of the hillfort where the defences are more elaborate.
- 3.5 Within the hillfort interior around 33 certain or potential round-hut platforms have been identified, most of them terraced into the natural hill slope. A further 49 roughly circular hollows have been located in the lee of the ramparts which could have contained huts, together with a number of less convincing hollows which may simply have been quarry scoops for the construction of the rampart.



Plate 2 The summit cairn before excavation showing footpath erosion

- 3.6 The highest point of Penycloddiau is occupied by the small cairn (PRN 102277) which is being actively eroded by the Offa's Dyke footpath on its eastern side. Interpretations as to its origins differ. It has been suggested that it may be a denuded Bronze Age burial cairn, on the basis of its crest location. Indeed, in the 19<sup>th</sup>-century account of the hillfort in his *Topographical Dictionary of Wales* Samuel Lewis recorded that 'in the centre of the camp is a large tumulus'. Ellis Davies (1949, 273), however, took a different view, favouring an interpretation of the cairn as a boundary marker between the parishes of Ysceifiog and Llandyrnog. Against this is the fact that the Ordnance Survey 1<sup>st</sup> edition 1:2,500 map published in 1874 (Fig. 2) clearly shows a triangulation station at this point, with the parish boundary running slightly to the east and incorporating a natural rock as a boundary marker. While it must be accepted that boundary

lines can shift over time, the presence of the natural rock as a marker obviates the need for a mound to be thrown up nearby.

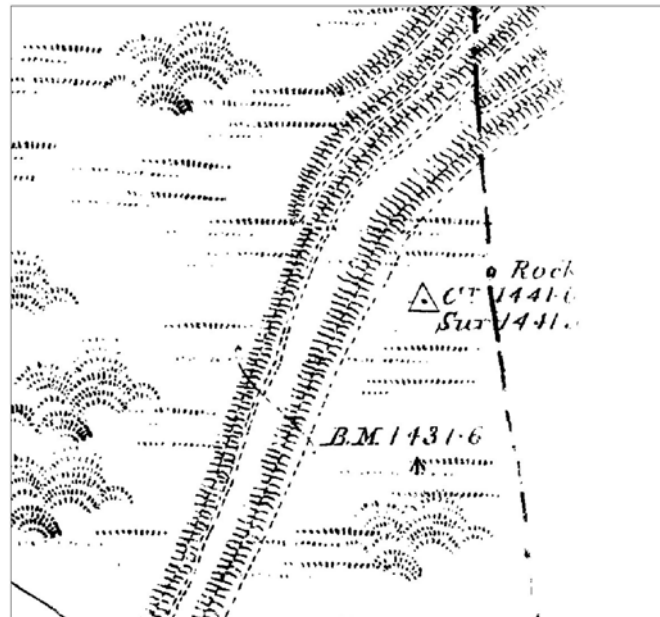


Fig. 2 Extract from Ordnance Survey 1<sup>st</sup> edition 25'' map of 1874

#### 4 EXCAVATION (Figs 03-4)

- 4.1 The excavation, undertaken in May 2009, investigated an area around 8.6 by 5.6m on the eastern side of the cairn, and incorporating the area of the evaluation conducted in 2008. Conditions during the excavation were less than favourable with strong winds and periods of heavy rain. Numbers in brackets in the following text refer to individual contexts in the site archive which has been deposited with the regional Historic Environment Record held by CPAT in Welshpool.

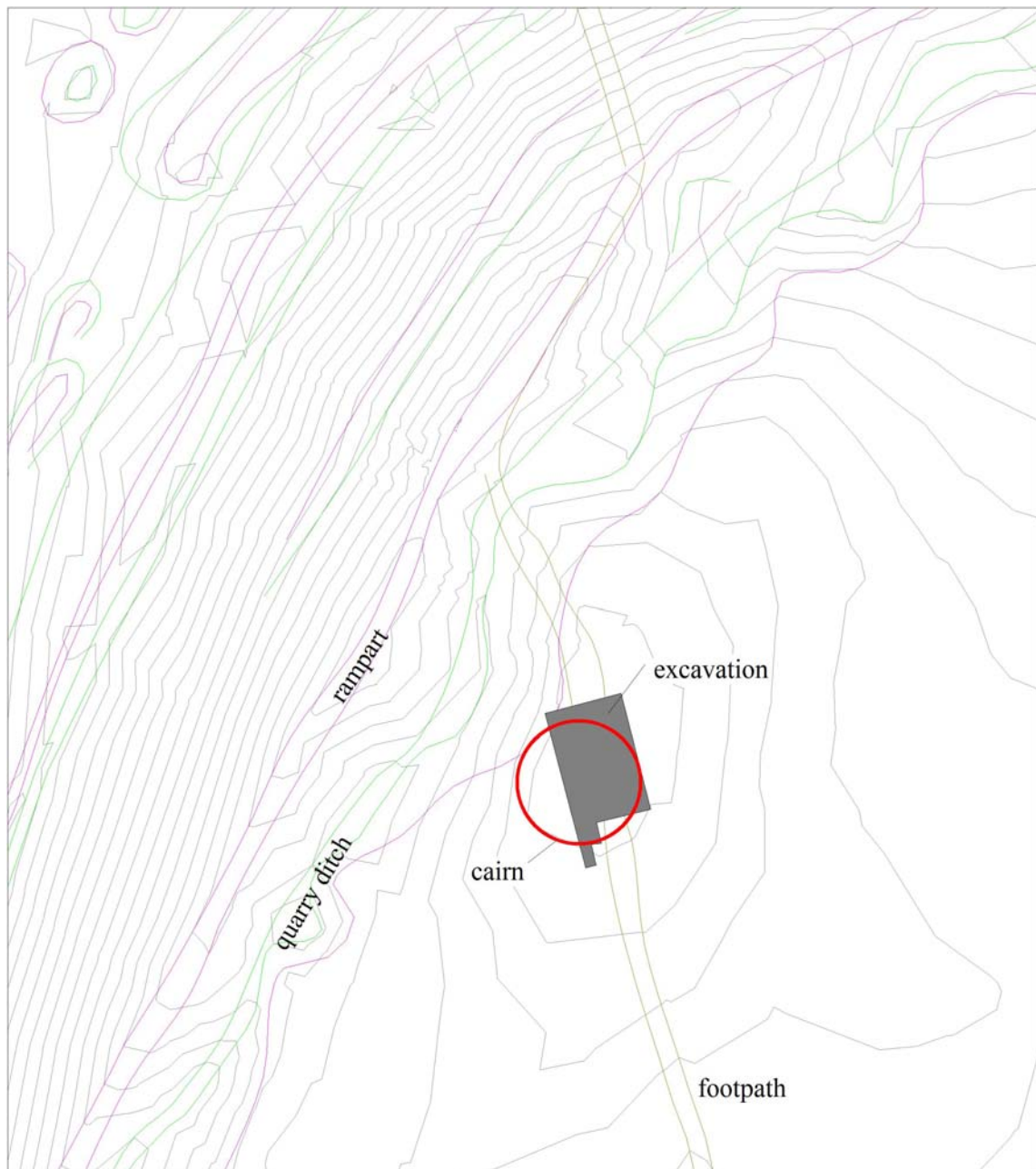


Fig. 3 Location of the cairn and excavation, 1:500 (contours at 0.5m intervals)

- 4.2 The cairn appears to have been constructed directly on the surface of the natural subsoil (11), an orange-brown silty clay with shattered stone. In the centre of the cairn a shallow, elongated pit (19), 3m in length and 1.7m wide, had been cut into the subsoil to a depth of up to 0.11m. The pit was filled by a deposit of reddish-brown stoney silt (18), which was sampled and retained for

possible future analysis. The pit was aligned north-west to south-east and at the eastern corner a smaller, sub-rectangular pit (21), measuring 1.1m by 0.6m, had been cut into the bedrock to a depth of around 0.1m below the base of pit 19. This had been disturbed by a later pit (04) which had removed the majority of the fill and consequently it was not possible to determine the relationship between pits 19 and 21. Given the position of pit 21, beneath the centre of the cairn, it seems probable that this represents a central burial pit, with any evidence for an inhumation or cremation having been removed by pit 04. Unfortunately, no artefactual evidence was recovered from the surviving fill.



Plate 5 Final view of the excavation from the south-west, showing the primary burial pit and later disturbance

- 4.3 Two features were identified in the base of the central pit, both cut into the natural subsoil: an angular, well-defined stakehole (13), probably of fairly modern date and the truncated remains of a small pit or posthole (12), 0.3m in diameter, which was undated. Further investigation of a possible feature which had been identified during the evaluation revealed that a number of apparently edge-set stones (15) were just part of the general cairn material.
- 4.4 The central pit had been sealed beneath a sequence of deposits (06, 08, 09, 17 and 20) which formed the make-up of the cairn, the original diameter of which is likely to have been between 8m and 9m. The two basal deposits, a reddish-brown, loose silty clay (17) overlying a light greyish-brown silt (20), were confined to the immediate area surrounding the central burial. These deposits (0.12m thick) were then sealed by a construction material (09). This consisted of a matrix of yellow-orange chippings and a firm, reddish-brown silty clay, 0.14m thick, which, beyond the central burial, had also been deposited directly onto the subsoil. This was sealed by a thin lense of dark peat (08), only 20mm thick, which was sampled and retained for possible future analysis. It is possible that this represents a deposit of turf which may have been stripped from the area of the cairn before its construction and reused as part of the make-up. The upper deposit (06) consisted of a dark brown silty clay up to 0.13m thick, containing small stone chippings and pea-grit. No artefacts were recovered from this layer, although a few fragments of

19<sup>th</sup>-century clay pipe had been trampled into the surface of the deposit at the centre of the mound.



Plate 6 The excavated area viewed from the east showing the cairn makeup. The extent of erosion is visible in the baulk where the footpath crosses the cairn from left to right, running beneath the ranging rod

- 4.5 At the centre of the cairn a large pit (04), around 1.4m across and up to 0.38m deep, had been cut through the cairn material, disturbing the primary central pit (see Plate 7). This was filled by a soft dark brown peaty soil (05) with shattered stone which contained a large quantity of 19<sup>th</sup>- and 20<sup>th</sup>-century bottle glass. It is possible that the pit was an antiquarian investigation of the cairn, or it may be associated with the Ordnance Survey triangulation station which is known to have occupied this site during the late 19<sup>th</sup> century. The pit was sealed beneath a trampled peaty soil (07) containing small shattered stone which varied from a dark soil at the top of the mound, gradually changing to a greyish silty material elsewhere, and is likely to represent a mixture of redeposited and eroded cairn material. Along the north-eastern and eastern periphery of the mound was an overlying trampled lense of dark peaty material (16). A small number of fragments of 19<sup>th</sup>-century clay pipe together with fine green glass were recovered from this layer.
- 4.6 During the late 19<sup>th</sup> and early 20<sup>th</sup> centuries a walkers' cairn (03) materialised on top of the earlier cairn, within which a number of stones were identified which contained dated inscriptions ranging in from 1898 to 1922, and were reported on in detail in the evaluation report (Grant and Jones 2008). This in turn was sealed beneath a modern walkers' cairn.



Plate 7 The excavation viewed from the north showing the cairn make-up with the footpath approaching from the south and running beneath the ranging rod. Note central the disturbance by pit 04

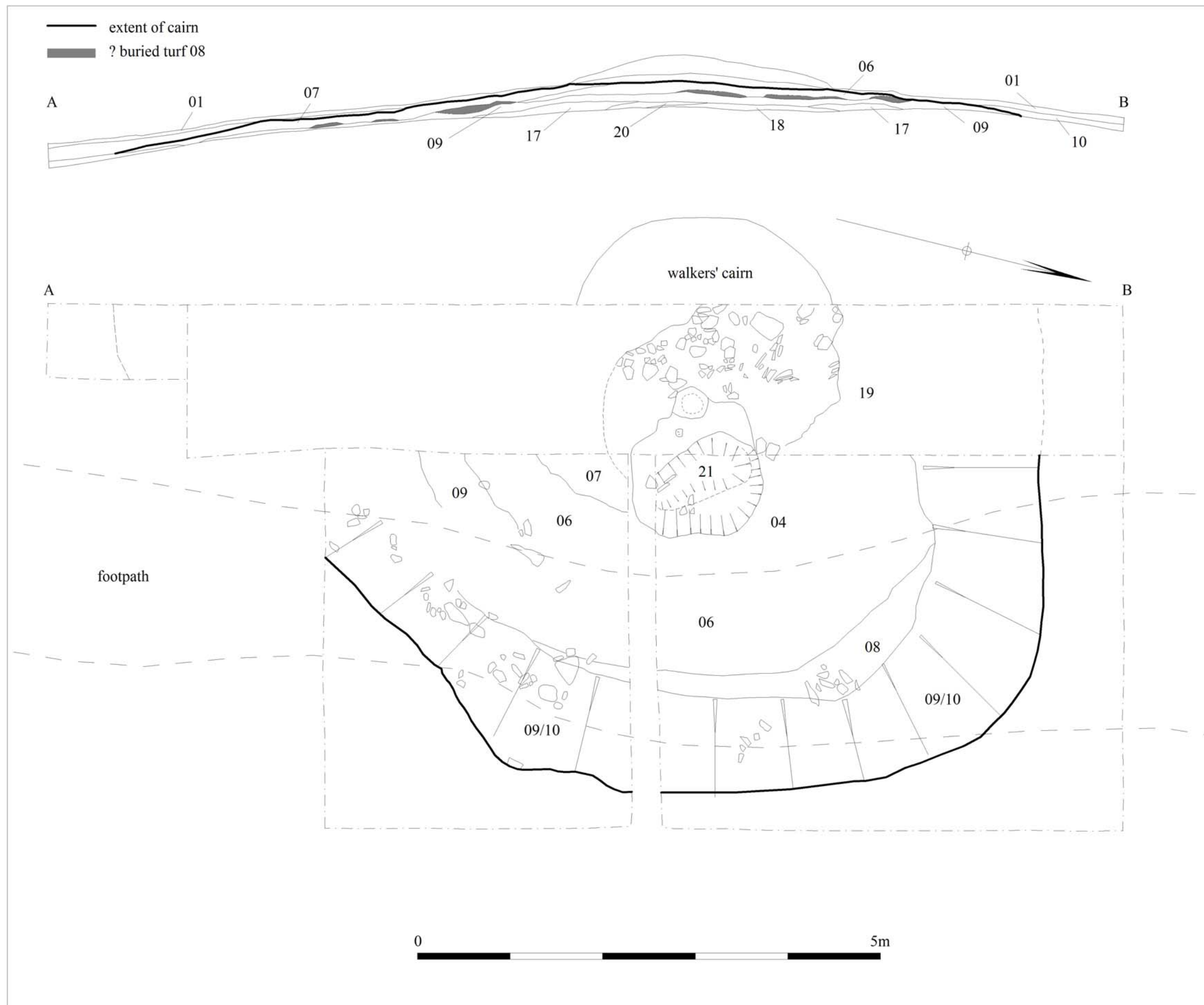


Fig. 4 Excavation plan and section

## 5 CONCLUSIONS

- 5.1 The excavation has provided evidence which indicates that the cairn is likely to have been constructed as a burial monument, presumably during the Bronze Age, although no dating evidence was recovered. 19<sup>th</sup>-century disturbance to the centre of the cairn had removed all traces of a primary burial or cremation, although the central burial pit could still be discerned. The original diameter of the cairn may have been between 8m and 9m, although this had been truncated by modern erosion associated with the Offa's Dyke footpath. The cairn now survives to a height of around 0.3m above the surface of the natural subsoil, but may have been rather more prominent in its original form.
- 5.2 The cairn appears to have been constructed from two layers of stone and earth (06 and 09), in between which there is evidence for a possible layer of turfs (08). It is probable that the area was stripped of turf prior to the construction of the cairn and that this material, together with stone and earth from the immediate area, was then used to form the cairn.
- 5.3 The prominent position of the cairn, on the highest point of Penycloddiau, is typical of Bronze Age burial monuments. The location was clearly chosen deliberately, possibly because of the extensive vista, or perhaps because the cairn itself would have been visible from a significant part of the Vale of Clwyd. It is interesting that although it was enclosed within the later hillfort the cairn was still retained.
- 5.4 The large pit (04) which had been cut into the centre of the cairn, probably in the late 19<sup>th</sup> century, may be an antiquarian investigation of the cairn, or it could be associated with an Ordnance Survey triangulation station which is known to have occupied this site during the late 19<sup>th</sup> century.
- 5.5 The pit was sealed beneath the remains of an early walkers' cairn (03) within which there were a number of stones which had been inscribed with initials and dates, ranging between 1898 and 1922. One inscription is worthy of particular note as it was carved by a soldier in the Canadian Army. Private Carlyle De Haven Chamberlain enlisted in the Canadian Infantry in August 1918. (see Grant and Jones 2008). Subsequent research has revealed that he was stationed at Kinmel Park Camp, Bodelwyddan.

## 6 ARCHIVE ASSESSMENT AND POST-EXCAVATION PROGRAMME

- 6.1 The preliminary assessment of the site archive has now been completed according to the *Management of Archaeological Projects* (English Heritage, 1991). This has demonstrated that the site archive has considerable potential for revealing significant information which could aid the interpretation and dating of the site.

### *Site archive*

- 6.2 The drawn and written record contains the primary data relating to the site. This has been interrogated and archived and no further analysis is proposed.

### *Artefactual record*

- 6.3 The excavations produced a small collection of finds, all of 19<sup>th</sup>- or 20<sup>th</sup>-century date, will be deposited with an appropriate museum.

### *Palaeoenvironmental record*

- 6.4 Bulk soil samples were taken from the possible buried turf layer 08 as well as from the fill of pit 19. These may preserve palaeoenvironmental evidence in the form of carbonised plant macro remains, and also have the potential for revealing material suitable for radiocarbon dating. Specialist analysis will be required to process and report on the samples.

*Radiocarbon dating*

- 6.5 Although the excavations failed to produce any obvious material which might be suitable for radiocarbon dating it is possible that the bulk soil samples may contain sufficient material to obtain one or more dates.

*Publication*

- 6.6 Following the completion of specialist reporting a final report will be prepared for publication in an appropriate regional or national journal.

## 7 ACKNOWLEDGEMENTS

- 7.1 The writers would like to thank the following people for their assistance during the project: Sophie Watson and Ian Davies CPAT; Samantha Williams and Fiona Gale, Denbighshire County Council.

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**Cartographic sources**

1874 Ordnance Survey 1<sup>st</sup> edition 1:2,500, Denbighshire 8.15

1983 Soil Survey of England and Wales map (Sheet 2 - Wales) and Legend (1:250,000 scale)

1994 British Geological Survey map of Wales (Solid edition at 1:250,000 scale)

**APPENDIX 1****PROJECT ARCHIVE****Site archive**

1 A1 site plan  
 2 A2 site plans  
 4 A4 site plan  
 CPAT film 2563.001-084 and film 2906.001-123  
 21 context record forms  
 photographic catalogue  
 context register  
 drawings register  
 levels record forms

**Contexts Register**

Context	Type	Comment
1	Deposit	Topsoil (turf and peaty soil)
2	Structure	Modern walkers' cairn
3	Structure	Base of early walkers' cairn
4	Pit	Pit cut into centre of cairn
5	Fill	Fill of pit 04, dark brown peaty soil and stone
6	Deposit	Trampled stoney dark/greyish brown layer, insitu mound material
7	Deposit	Peaty silty soil and shattered stone, eroded/redeposited mound material
8	Deposit	Dark brown turf/soil layer within cairn
9	Deposit	Yellowy-orange stone chips mixed with reddish brown silty clay
10	Deposit	Dark brown peaty silt below topsoil, outer perimeter of mound
11	Layer	Natural subsoil, shattered stone and orange/brown silty clay
12	Posthole (?)	Possible posthole or deposition pit
13	Stakehole	Angular stakehole at base of pit 04, probably of 19 <sup>th</sup> -century origin
14	Deposit	Light grey silty clay associated with feature 15
15	Cancelled	Edge-set stones forming part of cairn
16	Deposit	Trampled deposit on periphery of cairn with 18-19 <sup>th</sup> -century finds
17	Deposit	Red-brown, loose silty clay ?below 09
18	Fill	Red brown stoney silt filling pit 19
19	Pit	Central pit, presumably for a burial, disturbed by pit 04
20	Deposit	Light yellow brown deposit outside 19 and below 17
21	Pit	Small pit cut (primary burial) within cut 19

**Drawings Register**

No	Scale	Contexts	Comment
1	1:20	04,06,12	Plan, post excavation plan of pit 04
2	1:20	04-15	Plan, post excavation plan of Trench illustrating sondage
3	1:20	01-11	Section and profile through mound/cairn, west facing.
4	1:20	06,08,09	2009 excavation – initial plan (post removal of 07 & 16)
5	1:20	04	2009 excavation – pre-excavation plan of pit 04
6	1:20	04	2009 excavation – post-excavation plan of pit 04
7	1:20	17-20	2009 excavation – post –excavation plan of pit 19
8	1:20	01-19	Section through mound/cairn, east facing

**Finds Register**

<b>Context</b>	<b>Type</b>	<b>Number</b>	<b>Comment</b>
03	Bottle glass	13	Late 19 <sup>th</sup> to early 20 <sup>th</sup> century
03	Coin	1	George V penny dated 1911
03	Iron bolt	1	Unknown origin, post-medieval
03	Stone	5	Inscribed stones, 1898 - 1922
05	Bottle glass	27	Late 19 <sup>th</sup> – early 20 <sup>th</sup> century
05	Iron bolt	1	Unknown origin, post-medieval
05	Bottle glass	13	Late 19 <sup>th</sup> to early 20 <sup>th</sup> century
06	Clay pipe	2	19 <sup>th</sup> century (?)
16	Clay pipe	4	19 <sup>th</sup> century (?)
16	Iron nail	1	Unknown origin, post-medieval
16	Bottle glass	4	19 <sup>th</sup> century green wine glass

**Samples catalogue**

<b>Context</b>	<b>Material</b>	<b>Number of bags</b>	<b>Comment</b>
08	Soil	3	Peat/turf layer (2008)
08	Soil	1	Peat/turf layer (2009)
18	Soil	1 x 10 ltr tub	Primary fill of pit (19)