SURVEY ON PEN-Y-FAN AND CORN DU BRECON BEACONS, POWYS APRIL-MAY 1990

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INTRODUCTION

In response to increased and severe visitor erosion on the two summits, a survey of the Bronze Age cairns on Pen-y-Fan and Corn Du was carried out by officers of the Clwyd-Powys Archaeological Trust (C-PAT) at the request of, and financed by the landowners, the National Trust. The survey is to be regarded as a preliminary measure prior to future discussions on the possible preservation options of the cairns being considered by the National Trust, and as part of a programme of controlled monitoring by the National Trust and Brecon Beacons National Park Authority of the visitor erosion on the summits and footpaths in the Brecon Beacons. The survey took place between the 27th of April and the 11th May 1990 being subsequently drawn up in the C-PAT offices in Welshpool.

LOCATION

Pen-y-Fan and Corn Du are respectively the highest and second highest points in the Brecon Beacons. They are situated in the community of Modrydd and c.8km SW of Brecon (fig 1). The Ordnance Survey bench mark on the trig point situated on the top of the Pen-y-Fan cairn has been calculated by the Ordnance Survey to the nearest 10cm at 886.3m OD. The top of the inner kerb-stone in the Corn Du cairn and used as the site datum during the survey lies 14.07m below this, rounded to 872.2m OD.

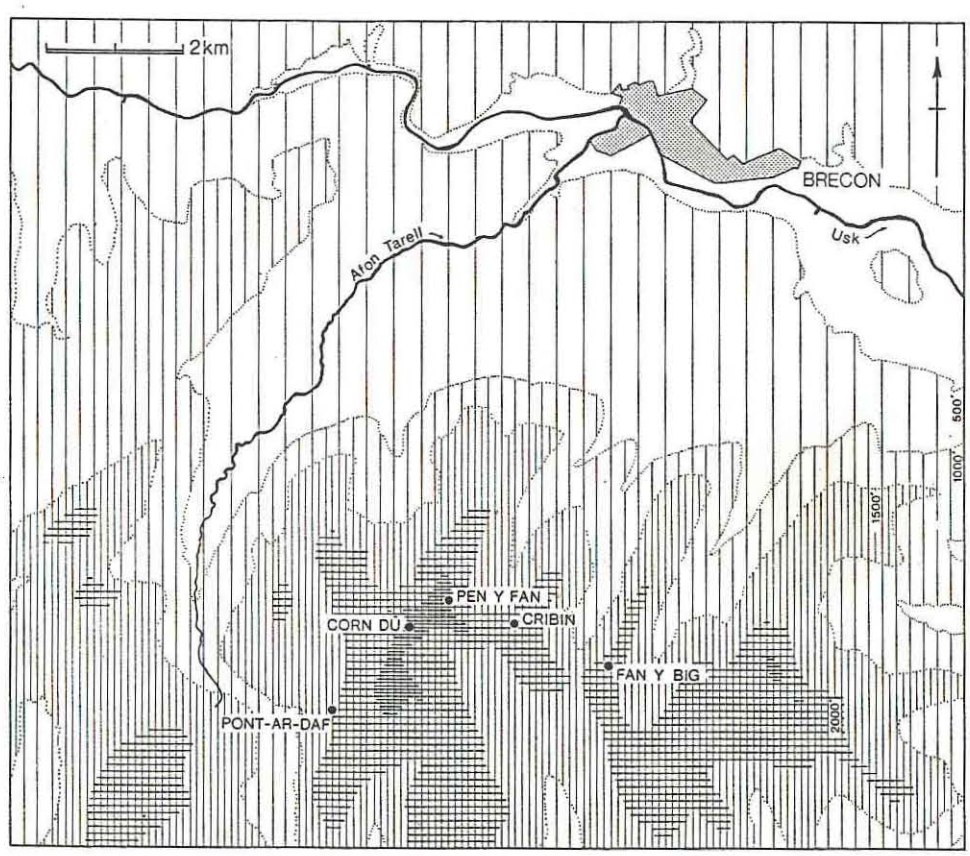

Fig 1: Site location of Pen-y-Fan and Corn Du and their relation to other contemporary archaeological sites in the area.

The cairns on the summits of Pen-y-Fan (at SO 01232158) and Corn Du (at SO 00752133) are part of a series of mountain-top cairns situated on the peaks along the northern escarpment of the Beacons. They are not Scheduled Ancient Monuments but are recorded on the Powys Archaeological Sites and Monuments Record, housed at C-PAT offices, as PAR 3184 (Corn Du) and PAR 2389 (Pen-y-Fan). Other cairns have been located on nearby Cribin, and a double Cordoned Urn cremation burial of the early Bronze Age was recovered from below a cairn on Fan-y-Big in 1981 (Briggs, Britnell and Gibson forthcoming).

THE THREAT

Severe visitor erosion on the footpaths to and the summits of Pen-y-Fan and Corn Du is a serious problem (fig 2). Rescue excavation of a Bronze Age timber circle on the slopes of Tyle Brith at Pont-ar-Daf on the approach path to Corn Du and Pen-y-Fan (fig 1) have already been undertaken by officers of C-PAT on behalf of the National Trust and Brecon Beacons National Park Authority (Gibson in prep). Excavation was, in this instance, regarded as the only viable response to the threat, the site being so fragile as to have been unlikely to have survived the winter.

Fig 2: Pen-y-Fan from the summit of Corn Du. The severity of the erosion on Corn Du and the path up to Pen-y-Fan is evident.

On the summits, this increased visitor pressure has resulted in aggrevating the severe natural and anthropogenic erosion to the two substantial mountain-top cairns. Surface peat and grass has now disappeared from both sites leaving the stone and peaty-soil matrix of the cairns exposed. As a result of natural processes, the soil from the spaces between the stones is eroding away at a considerable rate and the stones are becoming loose and dislodged.

On Corn Du, the stones of the archaeological monument are being removed for the construction of a modern walkers' cairn over the central area of the prehistoric mound (fig 3).

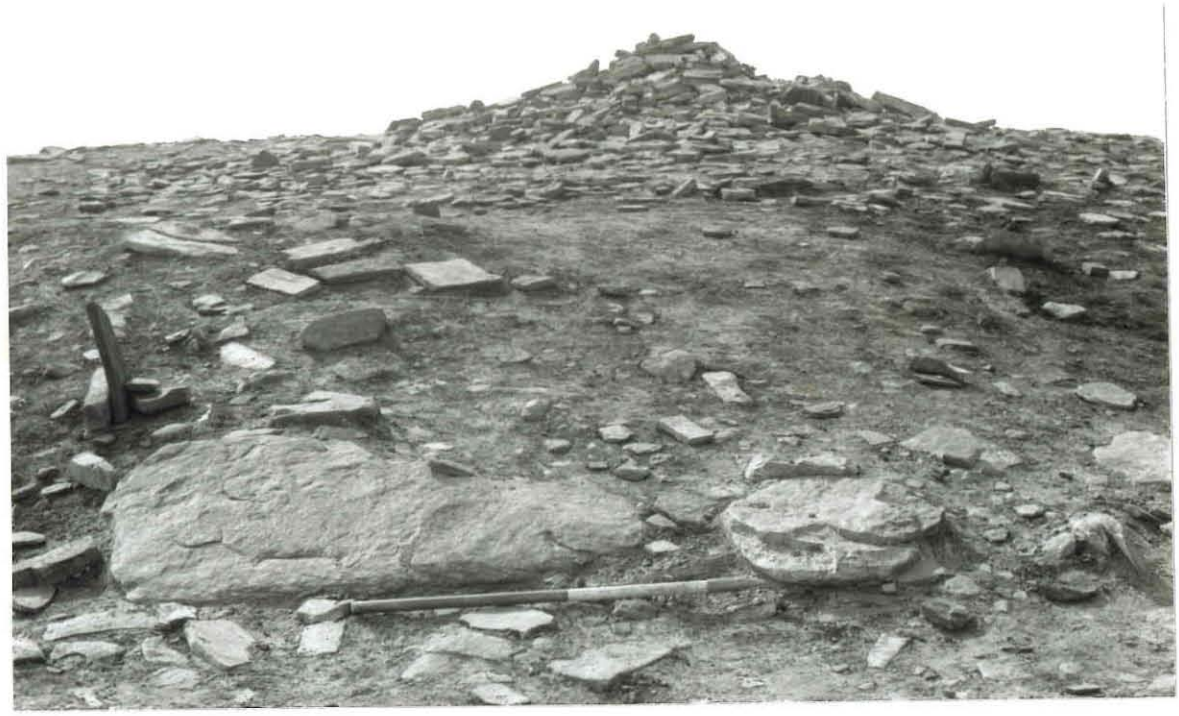

Fig 3: The walkers' cairn on Corn Du with two of the outer kerb stones visible in the foreground.

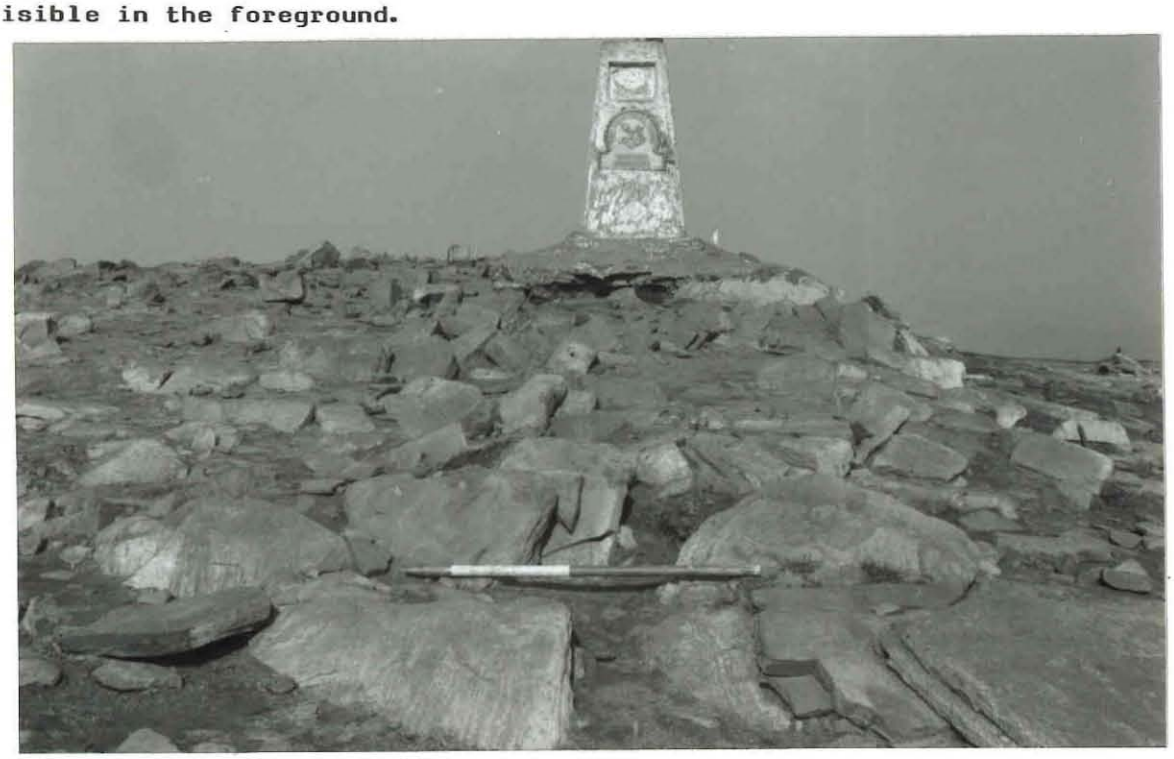

Fig 4: Pen-y-Fan cairn: triangulation pillar and the pitched kerbstones in the SW arc..

On Pen-y-Fan, the erosion is being exacerbated by the siting of the Ordnance Survey trig point on top of the cairn encouraging visitors to walk over the archaeological monument in order to touch the trig point pillar and thus dislodge stones with their feet (fig 4). Furthermore, stones from the cairn are being removed by the armed forces to construct check-point shelters and bivouacks on the summit of the mountain and and this is, indeed, a more serious threat to the archaeological monument.

PAST RESPONSE

In 1972, the edge-set stones of the central cist at Corn Du were recognised (Jones 1972) and, to lessen the threat of the robbing of these features as they became more exposed, a small rescue excavation was mounted over the central area. The object of the excavation was to recover the contents of the central cist, and to recover dating, palaeoenvironmental and constructional data. On excavation however, the cist proved to have been robbed, probably in the late 19th/early 20th century and no prehistoric artefacts were recovered (Crew 1978).

Radiocarbon dates from below the central cist provided early Bronze Age Termini post quos dates of 3800±75 BP (CAR-201) (2452-2426 or 2396-2372 or 2368-2138 BC at 1 sigma) and 3695±75 BP (CAR-202) (2199-2151 or 2150-2017 or 2003-1979 BC at 1 sigma) (Stuiver & Pearson 1986). A palaeoenvironmental sequence was obtained from the peat below the cairn by Prof A.G. Smith of University College Cardiff (unpublished) and details of the construction of the roughly rectangular, paved cist with multiple orthostatic kerbs were reported (Crew 1978, 1979). The final excavation report is in preparation (Crew and Gibson forthcoming).

THE FUTURE OPTIONS

It is accepted by the National Trust, the Brecon Beacons National Park Authority and C-PAT that the Pen-y-Fan and Corn Du cairns are under serious threat of total destruction by both natural and anthropogenic agencies and there are three main options of response to be considered:

1 That no action is taken and the cairns be allowed to erode naturally.

2 That the cairns are consolidated by covering them in an archaeologically visible and non-degradable medium.

3 That the cairns be totally excavated to recover the optimum archaeological data and be reconstructed as amenities.

The merits and faults of each option is not relevant to this report at this stage, but before the comparative benefits of each solution could be considered and weighed, it was considered desirable to make a full survey of the present state of the cairns which could act as a starting point for the future discussions and basis for future decisions.

THE SURVEY

The survey was undertaken by Alex Gibson and Brian Hart of C-PAT in the two weeks of good weather in late April/early May 1990. Accommodation was provided by the National Trust at the Dan-y-Gyrn field centre.

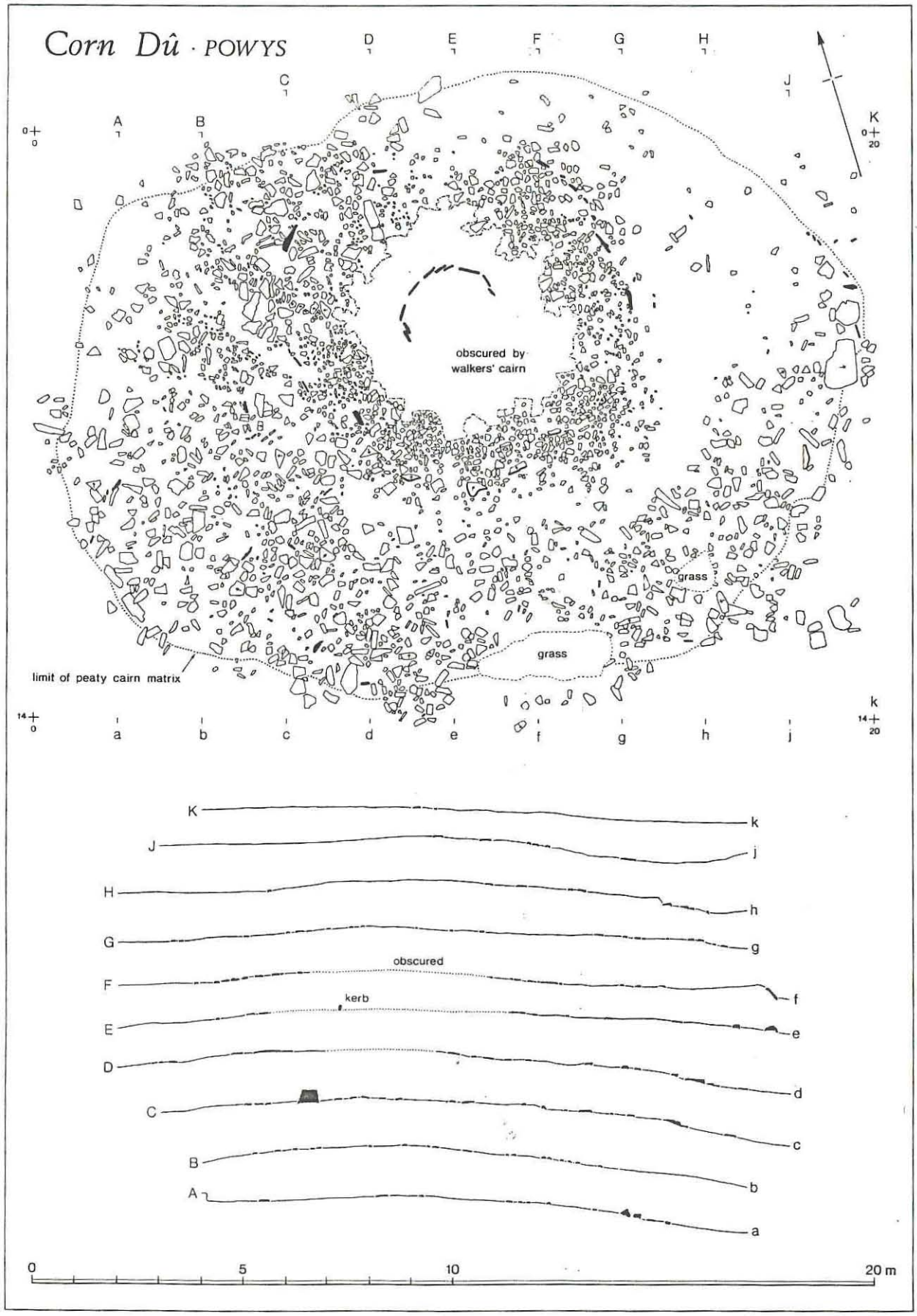

Fig 5: Plan and profiles of the cairn on Corn Du. Orthostats depicted in black.

A 1m grid was laid out over each cairn and the sites were planned at 1:40. Multiple uni-directional profiles were also taken at regular 2m intervals over each site using a dumpy level, and these were also drawn up at 1:40. A black-white and colour-slide photographic record of both sites was also taken and the photographic catalogues are recorded as appendices 1 and 2 here. The black and white negatives and the colour slides are retained in the C-PAT offices.

Corn Du (fig 5)

The surviving monument comprises an oval area of stone set within a peaty matrix and measures approximately 19m E-W by 14m N-S (fig 5). The profile of the cairn was a flat-topped saucer-shaped knoll, rising to c. 0.6m above the surrounding land surface. As already mentioned, the central area of the monument was obscured by a walkers' cairn but the orthostats of the central cist were still discernable (fig 5, fig 6). Where visible, these were as recorded by Crew (Crew and Gibson forthcoming) and their visibility was somewhat enhanced by their having been painted red and green by the armed forces !

That the cairn has had a complex constructional history is evident by the presence of internal kerbs marked by orthostats within the body of the cairn (fig. 5, fig 7). These delimited a circle some 8.5m in diameter and contained an area of denser stone fill. The area between this and the outer kerb was more peaty in nature containing larger and more widely-spaced stones. This may be indicative of a genuine archaeological context indicating differential constructional techniques, or, perhaps equally

Fig 6: Kerb stones of the central cist of Corn Du visible beneath the walkers' cairn.

likely, may be the result of the modern robbing of stone from this area for redeposition on the walkers' cairn. Similarly, the denser stone matrix within the central kerb may also be a result of fall out from the walkers' cairn though it must be stressed that an attempt was made during the survey only to plan stones set firmly within the peat matrix.

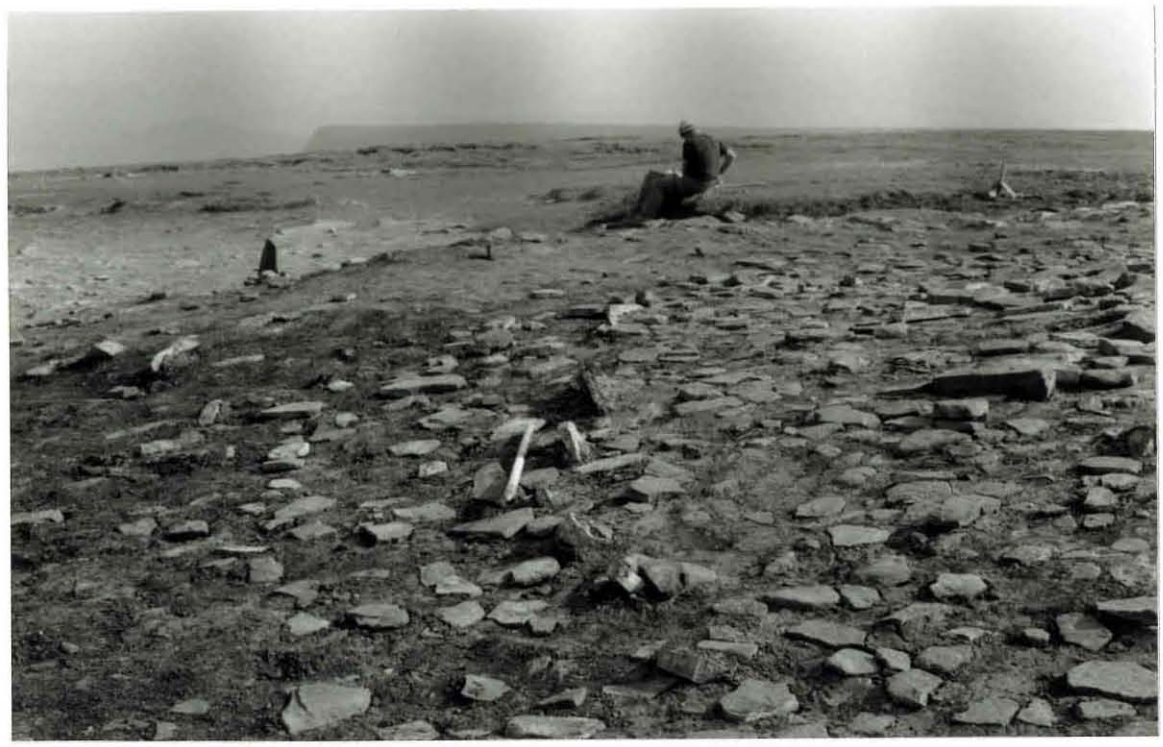

Fig 7: Internal kerb stones in the eastern arc of Corn Du.

Little survives of the outermost kerb. Two large pitched stones on the eastern arc (fig 5, fig 3) are the only elements of the kerb recognisable with certainty. These were also excavated in 1978 by Crew (Crew and Gibson forthcoming). The flattening of the circumference on the northern arc is a result of increased erosion in this area being immediately adjacent to the cliff edge of the plateau. Much of the cairn may naturally have eroded over the cliff-edge, however it is equally likely that the temptation to throw a stone or two off the edge has proved irresistable to numerous, more junior, visitors which action has seriously aggravated the natural erosion processes !

Very few patches of topsoil peat and grass now remain on the cairn (fig 5) the surface of which is otherwise totally exposed. The only protection now offered to the cairn is from the walkers' cairn but this, ironically, is over the area of the cairn already excavated. Comparison with almost every other Welsh upland cairn suggests that secondary interments may well lie within the material of the cairn, away from the central area, and are likely to remain undisturbed. The extent of the erosion must make these interments particularly vulnerable to destruction.

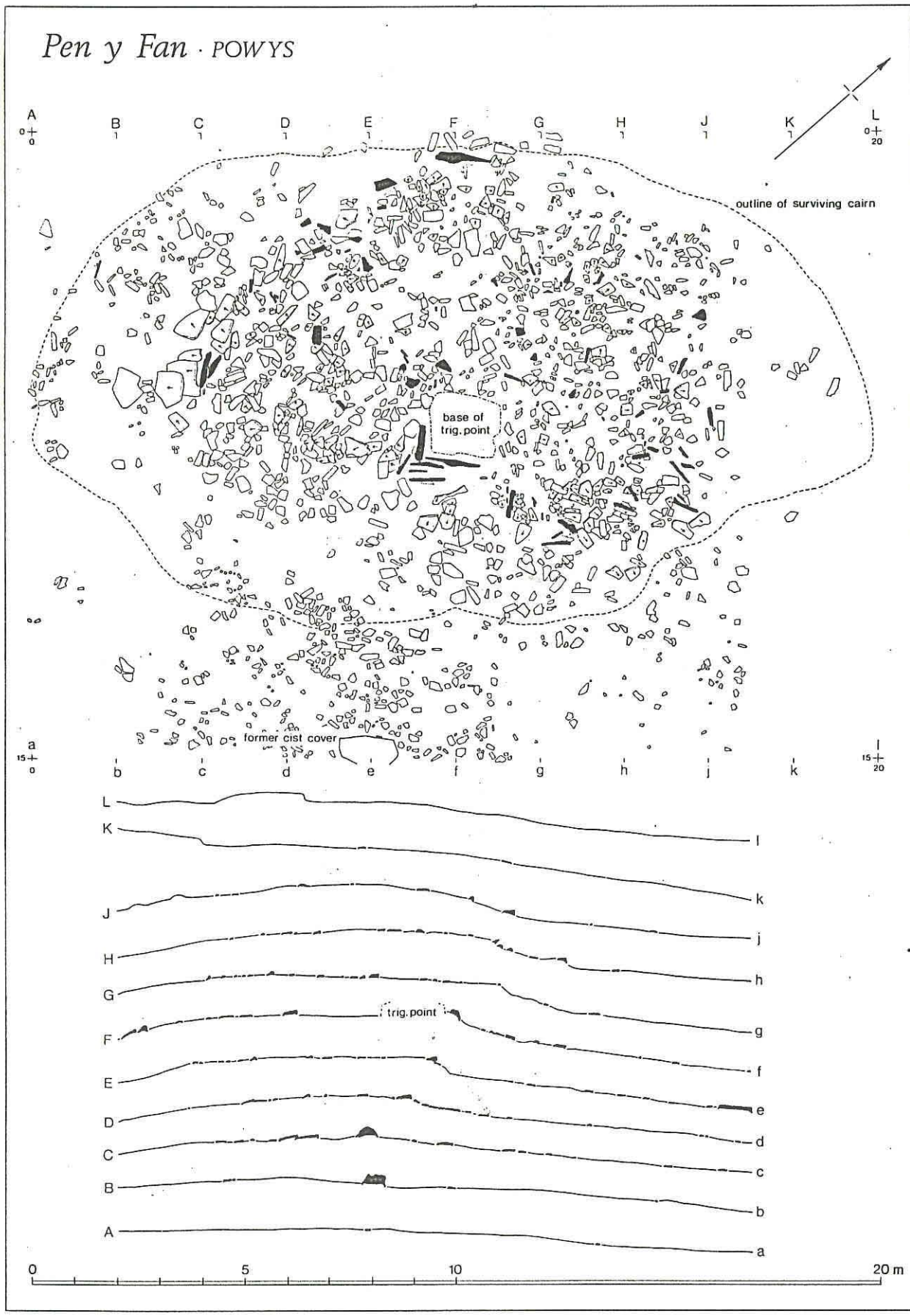

Fig 8: Survey of the cairn on Pen-y-Fan. Edge-set stones are shown in black.

Pen-y-Fan (fig 8).

The erosion on the summit of Pen-y-Fan is probasbly more serious than that on Corn Du (fig 9) and the cairn is less well-preserved. The cairn survives as a slightly irregular semi-circle c.20m in diameter measured NE-SW. It survives to a maximum of approximately 1.2m above the naturally sloping ground surface. Once more, the circumference is flattened on the NW-N arc, the portion nearest the cliff edge, and one suspects that much of the stone from the cairn has been thrown over the edge.

Fig 9: Pen-y-Fan, cairn and summit erosion from the SE

Orthoststic and pitched stones representing a kerb were noticable particularly on the SW arc (fig 4). These may represent the stones of an inner kerb within the matrix of the cairn as recognised at Corn Du since the mound material was seen to extend well beyond this kerb (fig 8). The limit of the surviving cairn material was recognised by a darker peaty soil contrasting with the pink-brown of the natural sandstone-derived subsoil. If this observation is correct, then it must remain uncertain exactly how much of the original cairn has been lost.

Damage to the monument is most accute in the SW half of the cairn where the monument faces the plateau of Pen-y-Fan which is regularly used as a checkpoint area on training exercises by the armed forces. The cairn has been used as a readily accessible quarry for large stones well-suited for the construction of bivouacks and checkpoint shelters. The effect of this quarrying can be readily seen in profiles E-e - G-g (fig 8) and on fig 10. Two large stones just to the SW of the surviving mound (in the centre of fig 9) represent the remains of a former secondary cist removed from the cairn as part of this quarrying (inf Peter Crew).

Fig 10: Pen-y-Fan cairn from the SW with the steep scarp caused by robbing clearly visible to the right of the trig point.

Fig 11: Traces of the rectangular cist below the trig point on Pen-y-Fan.

The central area is obscured by the concrete base of the Ordnace Survey triangulation pillar but traces of the edge-set stones marking the central, possibly rectangular, cist can still be seen (fig 12). There is no known record of excavation in this central area but it not inconceiveable that it may have been investigated by the same ananonymous antiquary responsible for the robbing of Corn Du. Only future excavation will prove this.

DISCUSSION

The survey shows that both cairns are in a serious condition. Despite the earlier excavation, considerable archaeological data is likely to survive in secondary contexts below both cairns. No part of either cairn can now be regarded as protected and both are susceptible to robbing and extreme weather erosion.

Pen-y-Fan is, perhaps, the most at risk and a considerable amount of the mound has been robbed in recent years (Crew and Gibson forthcoming). No finds or palaeoenvironmental data have been recovered from this site and thus it must be regarded as a priority for rescue excavation.

A considerable part of the problem with regard to both cairns is public ignorance. There is nothing at either site to inform the general public of their presence and their fragility. Furthermore, the siting of the trig point on Pen-y-Fan encourages walkers to cross the cairn and picnickers to create comfortable seating for themselves around the base of the trig point, often to the detriment of the archaeology. Removal of the trig point would remove a focal point from the plateau and thus reduce the amount of foot-erosion on the cairn.

The major problem facing Pen-y-Fan, is the use of the cairn as a readily available quarry by the armed forces and their is no easy solution to this problem. The site cannot be policed and there is therefore no way of enforcing any ban on the robbing of the monument.

RECOMMENDATIONS

To prevent the total loss of the archaeological data preserved beneath both mounds, serious protective measures need to be taken. There are, in the writer's view, two viable options.

The first is to cover both mounds with an archaeologically visible and non-degradeable medium such as "Terram" sheeting or pea gravel and then consolidate with mound with loose, local stone. This would seal and protect the surviving archaeology while providing a recognisable horizon to facilitate future excavation. This measure would, however, totally mask the archaeology and create 'false' monuments on each plateau. By this solution, both sites would lose their value as archaeological amenities. Furthermore, this solution would not halt, but simply slow down, the erosive processes. The robbing at Pan-y-Fan in particular would continue and this option could not be regarded as a final solution, but the first stage in an on-going process of consolidation.

The second option is to totally excavate both sites. While it is admitted that excavation is, by its nature, destructive, excavation would at

least allow the salvage of the surviving data. It would also remove the temptation of quarrying and vandalism by removing the source of temptation itself. The monuments could also be partially reconstructed as amenity sites and inobtrusive information boards or plaques be erected. This option would be expensive, but would be a once and for all expense.

ACKNOWLEDGEMENTS

The writer would like to thank Mr Phil Parke, Warden for the National Trust, and his staff for their help during the survey and to Mr W. Britnell of C-PAT for useful discussions on earlier draughts of this papaer. Information on the past history of the sites was freely given by Mr P Crew, Snowdonia National Park. The survey drawings were prepared to publication standard by Brian Williams.

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APPENDIX 1

PEN-Y-FAN AND CORN DU SURVEY; MAY 1990

LIST OF BLACK AND WHITE PHOTOGRAPHS

1 Pen-y-Fan: outer kerbstones of cairn on SW arc of circumference.
2 -ditto-
3 -ditto-
4 -ditto-
5 -ditto-
6 Pen-y-Fan: Central cist below trig point: from the W.
7 -ditto-
8 Pen-y-Fan: Central cist below trig point: from SE.
9 -ditto-
10 Pen-y-Fan: Slabs from destroyed cist in southern sector.
11 -ditto-
12 Pen-y-Fan: View from SE showing state of erosion (dark)
13 -ditto-
14 Pen-y-Fan: Detail of internal kerbing from SW
15 Corn Du from Pen-y-Fan
16 Pen-y-Fan: View from SW showing state of erosion and robbed southern sector
17 Cwm Ilwch from Pen-y-Fan
18 Fan-y-Big from Pen-y-Fan
19 Cribin and Fan-Y-Big from Pen-y-Fan.
20 Pen-y-Fan from Corn Du showing path erosion and site of cairn.
21 Pen-y-Fan cairn and slope of scarp from Corn Du
22 Corn Du: kerb stones on east side of cairn and modern walkers' cairn
23 -ditto-
24 Corn Du: details of internal kerb on eastern side (from N)
25 Corn Du: details of internal kerb on eastern side (from S)
26 Corn Du: Detail of innermost kerb and central cist below walkers' cairn, from NW
27 Corn Du: cairn and superimposed walker's cairn from NW
28 Corn Du: general view from the S
29 Corn Du: erosion on western side
30 -ditto-
31 Corn Du: general view from S.
32 -ditto-
33 Corn Du: Internal kerb stone on eastern side.
34 Corn Du: erosion on western side, from the S.
35 Corn Du: E side of cairn, erosion of the summite, Pen-y-Fan and N Beacons escarpment
36 -ditto-
37 Corn Du: General view of cairn from the SE.

APPENDIX 2

PEN-Y-FAN & CORN DU SURVEY
MAY 1990
CATALOGUE OF COLOUR SLIDES

PEN-Y-FAN

1 Pen-y-Fan: kerb-stones in situ: looking NE
2 Pen-y-Fan: kerb-stones in situ: looking NE
3 Pen-y-Fan: kerb-stones in situ: looking NE
4 Pen-y-Fan: cist below trig point: looking NE
5 Pen-y-Fan: cist below trig point: looking NE
6 Pen-y-Fan: cist below trig point: looking E
7 Pen-y-Fan: cist below trig point: looking E
8 Pen-y-Fan: kerb-stones in situ on Northern arc
9 Pen-y-Fan: kerb-stones in situ on Northern arc
10 Pen-y-Fan: survey in progress: Cribin in background: looking SE
11 Pen-y-Fan: survey in progress: Cribin in background: looking SE
12 Pen-y-Fan: general view of cairn: from the S
13 Pen-y-Fan: general view of cairn: from the S
14 Pen-y-Fan: general view of cairn: from the S
15 Pen-y-Fan: destroyed cist, south side of cairn, looking E
16 Pen-y-Fan: destroyed cist, south side of cairn, looking E
17 Pen-y-Fan: general view of cairn showing severe disturbance of southern half
18 Pen-y-Fan: general view of cairn showing severe disturbance of southern half

CORN DDU

19 Corn Du: from Pen-y-Fan
20 Corn Du: from Pen-y-Fan
21 Corn Du: detail of kerb on eastern side
22 Corn Du: detail of kerb on eastern side
23 Corn Du: detail of kerb on eastern side
24 Corn Du: detail of kerb on eastern side
25 Corn Du: general view from SE
26 Corn Du: general view from SE
27 Corn Du: view of western half
28 Corn Du: view of western half
29 Pen-y-Fan from Corn Du
30 Corn Du: general view from S
31 Corn Du: general view from S

GENERAL

32 Pen-y-Fan, Cribbin and Fan-y-Big from Corn Du
33 Pen-y-Fan from Corn Du
34 Cribbin from Corn Du
35 Cribbin from Corn Du
36 LLyn-cwm-Ilwch from Corn Du
37 Cwm-Ilwch from Corn Du