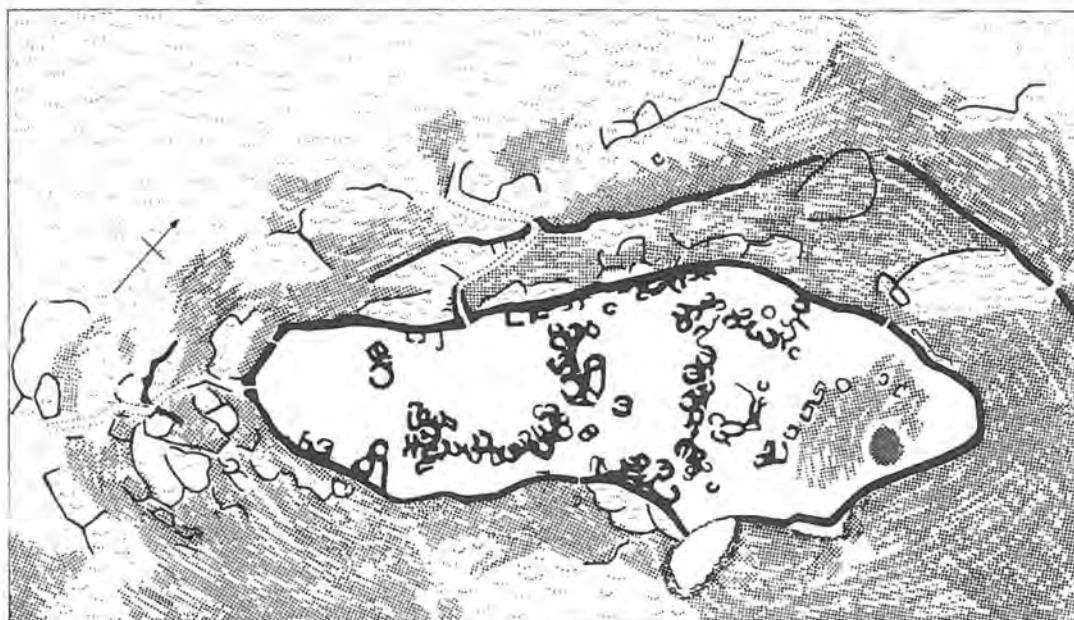


# TRE'R CEIRI MONITORING VISIT

MAY 2002

Report number : 453



Prepared for  
**GWYNEDD COUNCIL**

MAY 2002

Ymddiriedolaeth Archaeolegol Gwynedd  
Gwynedd Archaeological Trust

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By

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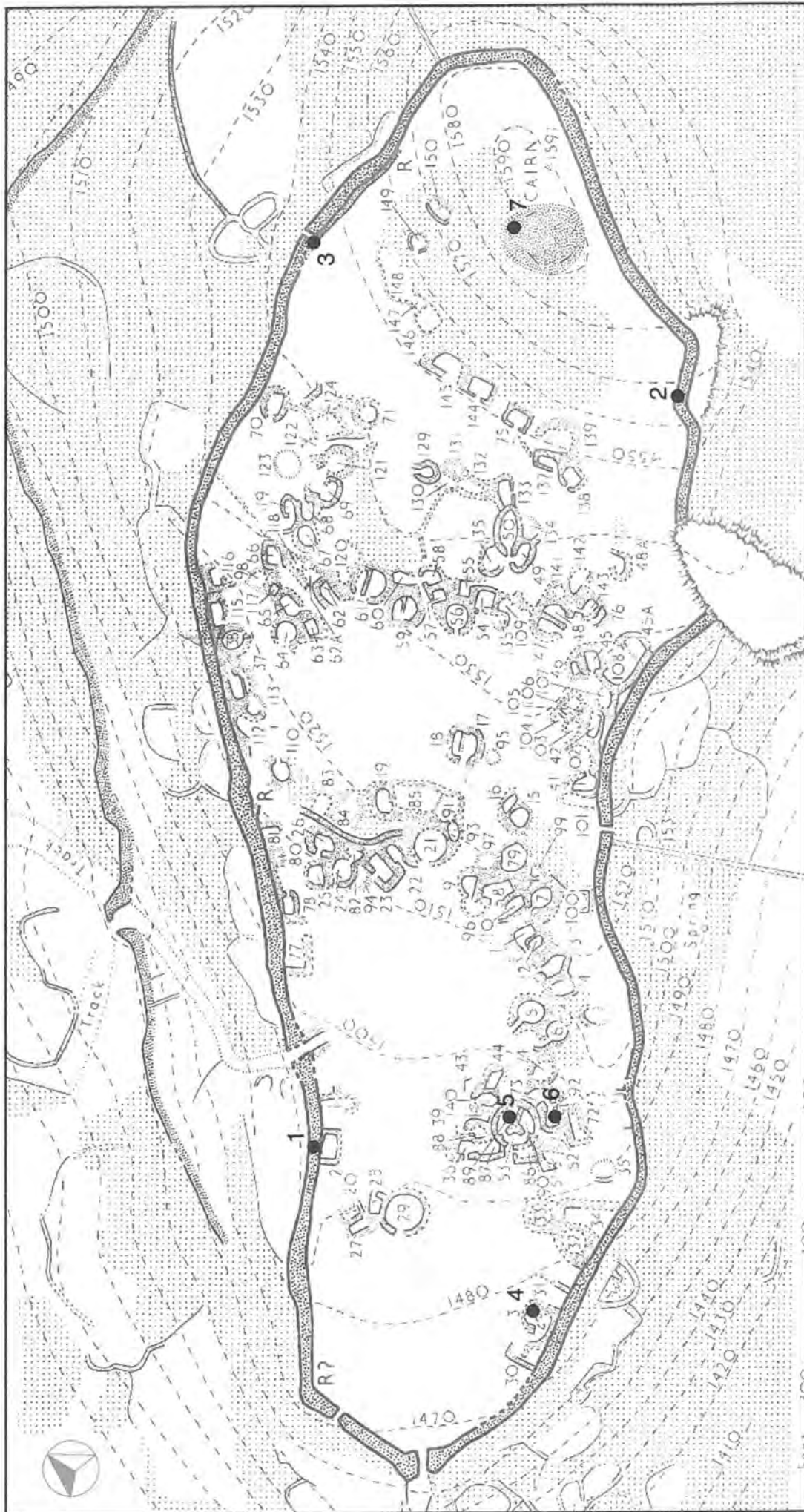


Fig. 1 Tre'r Ceiri showing points of collapse identified in the May 2002 monitoring visit (after R.C.A.H.M.W. 1960)

## **TRE'R CEIRI MONITORING VISIT: MAY 2002 (G1605)**

### **Introduction**

Tre'r Ceiri (SH373446) is an exceptionally well preserved hillfort standing at a height of 485m on the easternmost of the three peaks of Yr Eifl, on the Llyn Peninsula. The two-hectare fort is bounded by a massive, 2.3 to 3.0m thick, dry-stone wall. Unusually, due to the inaccessibility of the site and the abundance of stone on the peak very little masonry has been cleared from the site for re-use. The rampart has survived close to its original height of up to 3.5m in places, the best-preserved portions retaining a dry-stone rampart. A further outer defensive wall stands to the north-west of the fort. There are two defended entrances through the inner rampart, at the south-west and north-west of the fort with additional simple gaps in the rampart at the north, west and south-east. The rampart is carried over the north 'postern' by several stone lintels. The north-west entrance appears have been the main entrance into the fort with a 15m long passage leading to a terraced pathway and a further gateway through the outer defensive wall. The interior of the fort contains the remains of about 150 dry-stone huts and enclosures exhibiting a great variation in size and shape, ranging from simple round huts to irregular and rectangular structures.

This spectacular site has been attracting large numbers of visitors for at least 100 years. Complaints about visitor damage were made by the Cambrian Archaeological Association as long ago as 1894 (Cambrian Archaeological Association 1895). The erosion and general deterioration in the condition of the site prompted Cyngor Dosbarth Dwyfor, in conjunction with Cadw: Welsh Historic Monuments and Gwynedd County Council, to embark in 1989 on a conservation project to consolidate the site. The project ran for an initial five years. Gwynedd Archaeological Trust was commissioned to provide archaeological supervision and to record all works as they progressed. A management plan was produced at the end of the fifth season including a survey of all unconserved areas in the fort, recommendations for a further, concluding, five years' work and a long-term management strategy. Funding was subsequently agreed by Cyngor Dosbarth Dwyfor, Cadw and Gwynedd County Council for a further five-year program which commenced in 1994. Local government reorganisation in 1996 led to the formation of a new unitary authority, Gwynedd Council, who took over the management of the project from C.D.D. again with financial help from Cadw. The tenth season of the project was managed by C.D.D. and funded by Cadw. Work was completed in mid November 1998.

A strategy for the long-term management of the site was agreed during the latter years of the project and a management plan was produced (Hopewell 1999). The masonry on the site had been stabilised but remained somewhat vulnerable to erosion by the increasing numbers of visitors. Study of previous damage to the site had shown that the most efficient way of conserving the masonry is to consolidate damage soon after it has occurred thus ensuring that any areas of instability do not spread into the surrounding masonry.

It was therefore agreed that two monitoring visits should be carried out per annum. These visits would allow minor stabilisation work such as the backfilling of metal detector holes and the replacement of occasional stones to be carried out. A contingency budget was also put in place allowing a team of 3 stonemasons to be contracted for three days per annum to allow for the conservation of any more serious problems. Regular monitoring visits have been carried out by G.A.T. since the end of the conservation project. The first monitoring visit of 2002 was carried out on 15<sup>th</sup> May. Weather conditions were poor with gale force winds, rain and low cloud.

### **Results of the monitoring visit**

All masonry on the site was inspected for damage and points of instability. Provision was made for photographic, drawn and written recording.

The following minor areas of damage were identified and were marked onto a plan of the site (Fig. 1) Written records were kept of all works.



## *The Ramparts*

Three areas of instability were identified.

1. The wall core had become loose at this point and was threatening the stability of the inner face. The core was repacked thus providing support for the inner face.

2. A single large stone had been pushed from the top of the low inner face. This must have been deliberate damage because the masonry at this point is stable and the amount of force needed to remove a well-bedded large stone from the wall rules out accidental damage. The stone was replaced in its original position.

3. A flat edge-set stone at the base of the wall in the north postern has been pushed forwards by the weight of stone behind it. The stone is at the base of the wall, 1.2m from the inner end of the western side of the unroofed part of the passage (stone A Figs 2 and 3, Plates 1-3). The stone has pivoted from its southern end and the northern end is about 0.2 metres out of alignment. The stone can be seen in its original alignment on plate 1 which was taken during conservation work in 1989. Stone A was originally held in place by stones B and C which rested on top of it. Fig. 3 shows the present arrangement of the stones. Stone B has fallen behind stone A and stone C still rests lightly on stone A.

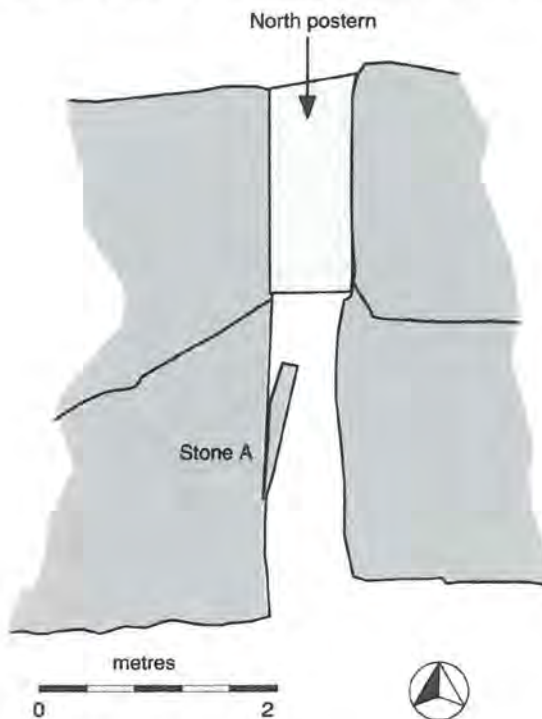


Fig.2 Collapse 3

There does not, however, appear to have been any substantial slumping of the wall above. A large slab (stone D) runs deep into the wall. The weight of the stone on the inner end has produced a cantilever effect, thus supporting the face above the outer end. Stone A is not currently supporting any weight and stones A, B, C and E are loose in the wall. It is likely that stone A will fall out of the wall entirely if no action is taken. This would leave a large unstable void in the wall base. Core material is already falling forwards and if this is allowed to continue it is likely that the stones supporting stone D and the face above it will be displaced causing a substantial collapse in the passage. This would be serious from both an archaeological and a health and safety viewpoint.

The fact that stone A no longer supports any weight may make the stabilisation process easier. It may be possible to remove stone A entirely, clear out the displaced core material behind it and repack the core. Stone A could then be replaced and wedged into place with stones B, C and E. Similar procedures were successfully carried out several times during the original conservation project. It may be

possible to insert wooden supports beneath stone D during the above procedure. The wall above should be recorded in detail and the stones numbered before any action is taken. If there is any movement in the upper facing when stone A is removed it is likely that a section of facing will have to be dismantled and reinstated.

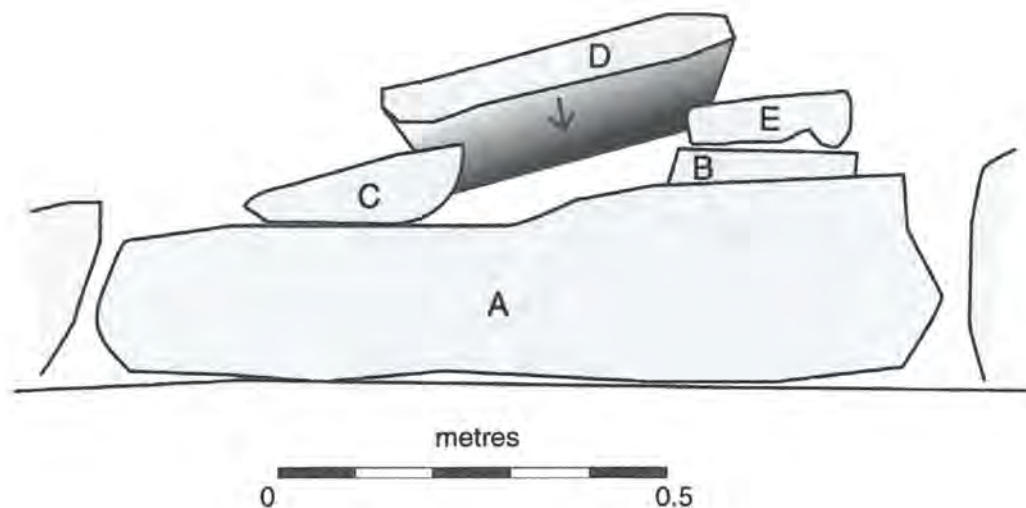


Fig. 3 Collapse 3 showing the arrangement of the individual stones

#### *The Huts*

4. Hut 3. A substantial amount of damage has been done to the floor of hut 4. Plate 4 shows the hut after conservation in 1997. The floor had been carefully reinstated to help support the overhanging eastern wall. Stones have been removed to a depth of between 0.2m and 0.3m from the eastern end of the hut and neatly piled on top of the walls (Plate 5). The damage compromises the stability of the eastern wall and is very unsightly. Reinstatement requires reference to the 1997 photographs and report. The material was therefore not reinstated during the monitoring visit.

5. Hut 89. Two small holes had been dug into the hut floor at the base of the Y-shaped partition. No *in situ* masonry had been damaged but this type of hole digging has been observed to have been one of the major causes of irreparable damage to the huts on Tre'r Ceiri as it undermines the basal course of the wall making repair/reconstruction almost impossible. Fortunately the partition had not begun to subside into the hole and it was possible to pack the stones back into the hut floor.

6. Hut 92. Two stones had been knocked from the core on the wall top. These were replaced in their original positions.

7. The cairn. The cairn was largely undisturbed but it was noticed that several smaller stones had been daubed with graffiti, apparently using Tippex correction fluid. No action was taken; the rain will presumably wash it off.

#### *General observations*

All three notice boards were still standing and in reasonable condition. The barrier closing off the bottom of the eroded footpath below the fort has one bar missing and is generally unstable.

#### **Discussion**

This is the first year since the completion of the conservation project that significant damage has occurred to the monument. Collapse 3, in the north postern, is an example of natural deterioration of the masonry and it must be expected that occasional points of instability will occur. The damage to hut 3 is more worrying. The motivation for removing a 20cm layer of stones from the hut floor is not obvious. This is clearly not metal detectorist damage. There is some concern that, considering the nature of the graffiti on the cairn, that the damage was done by an unsupervised school party.

## Recommendations

The damage to hut 3 and the instability in the north postern should be stabilised as soon as possible. The north postern gives particular cause for concern because visitors commonly walk through this feature and the loose stone could be accidentally kicked out thus precipitating a collapse. The stabilisation of the two collapses should be relatively straightforward and the cost should not exceed the contingency budget.

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Plate 1 Collapse 3 in 1989, from the south-east



Plate 2 Collapse 3 in 2002, from the north



Plate 3 Collapse 3 in 2002, from the south





Plate 4 Hut 3 after conservation in 1997



Plate 5 Hut 3 after damage to floor in 2002

