

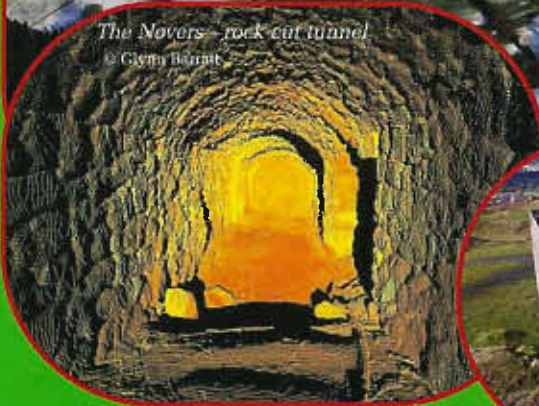
THE CLEE HILLS

Understanding and securing a future for the past

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The Novers - rock cut tunnel
© Glynn Barratt



*Titterstone (West) Quarry
view across quarry to incline*



1881 plan of Cornbrook coal mine
© Shropshire County Council



Titterstone (West) Quarry
© Shropshire County Council



Clee Hill Quarry (Hanson plc)
© CPAT 95-C2106



Line of aerial ropeway in today's landscape
© Glynn Barratt



Aerial ropeway from Clee Hill
© Shropshire County Council



*Titterstone (West) Quarry
hopper building* © Roger White



*Titterstone (West) Quarry
stone breaking plant*
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The Clee Hills

Understanding and securing a future for the past

The Clee Hills ALSF (Aggregates Levy Sustainability Fund) Project

The Clee Hills ALSF Project conducted by Birmingham Archaeology and the Ironbridge Institute, both of the University of Birmingham, is a collaborative undertaking involving the local community and supported by various organisations including English Heritage, Natural England, Shropshire County Council, South Shropshire District Council, Shropshire Wildlife Trust, Hanson plc, and the Downton Hall and Hopton Court Estates.

The project, funded by the ALSF, was established in 2005 to provide a firm basis for understanding and explaining the history of the area in order to assist in the future management of the extensive and well-preserved archaeological remains that characterise Titterstone Clee Hill and Clee Hill. These are, most notably, the prehistoric monuments and the industrial features dating to the medieval period onwards. As part of this project a detailed examination of these remains was undertaken by combining field and aerial survey and map-based research, together with a thorough review of the historical information. Collectively, these remains form a significant and dynamic cultural landscape.

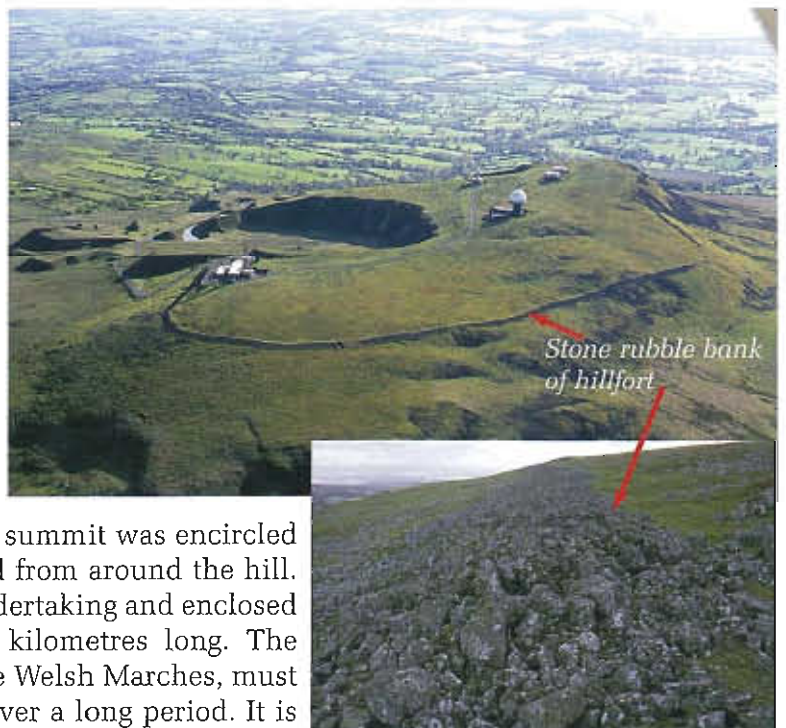
This leaflet briefly describes the main components of this historic landscape, and provides a summary of the management initiatives and practical measures contained in the draft Conservation Plan for the project. The final version of the Conservation Plan will be available to all interested parties following a consultation period.

A day meeting, starting at 9.30a.m., is being held on 8th December, 2007 at Knowbury Memorial Hall. The purpose of the meeting is to publicise the results of the Clee Hill Project and to discuss implementation of a Conservation Plan via the Titterstone Clee Heritage Trust (TCHT). The aim is to get feedback from as many interested parties, including the community, as possible.

A landscape of ceremonies and rituals

The prominence of the Clee Hills has long drawn people to them from the surrounding area, where their appearance from afar might be as important as the views from their summits. Prehistoric communities were probably drawn to such a place because of its isolation, its dominant position and its exposure to the elements. The earliest evidence of activity here dates from around 2000 BC to 1000 BC, when numerous burial monuments, consisting of low mounds or rings of earth and stone were constructed. Two of these monuments crown the very top of Titterstone Clee Hill. All these monuments will potentially contain important evidence of burial rites and associated ritual practices.

The social significance of Titterstone Clee Hill continued into the 1st millennium BC when its summit was encircled by a huge bank of dhustone (dolerite) gathered from around the hill. The construction of the bank was a massive undertaking and enclosed an area of 28 hectares and was about 2.25 kilometres long. The building of this hillfort, one of the largest in the Welsh Marches, must have required a substantial communal effort over a long period. It is not hard to imagine gangs of men prizing and hauling large blocks of

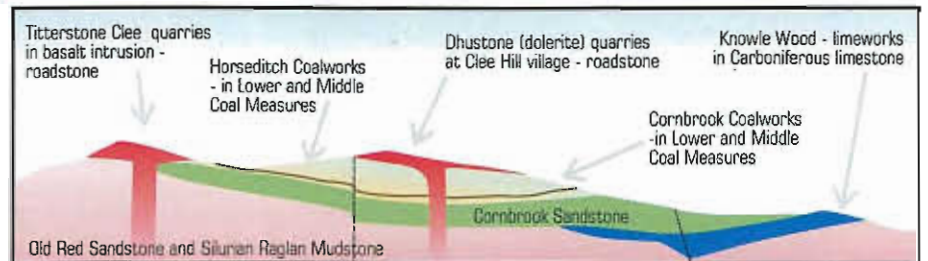


Detail of stone rubble bank of hillfort.

dhustone, and placing them at key points around the circuit, with hoards of women and children gathering up smaller rocks in baskets and tipping them next to the larger stones. It is likely that such a large hillfort as Titterstone Clee served as a focal point in the landscape and its use was closely tied to the agricultural calendar. Limited archaeological excavations have been largely directed at examining the enclosing bank. As a consequence, the site offers enormous potential for discovering buried features within the interior and evidence of the types of activity practised here.

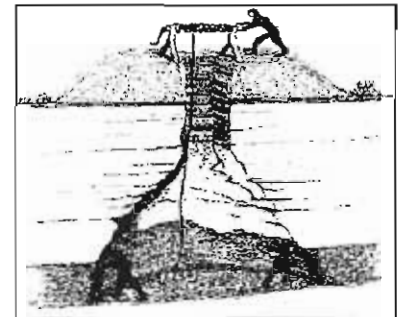
A landscape won from the ground

Since the Middle Ages the importance of the Clee Hills has been closely tied to their geology and has focused on the extensive mineral resources existing here - coal, ironstone, limestone and dhustone (dolerite).



Simplified generalised section through Titterstone Clee Hill and Clee Hill

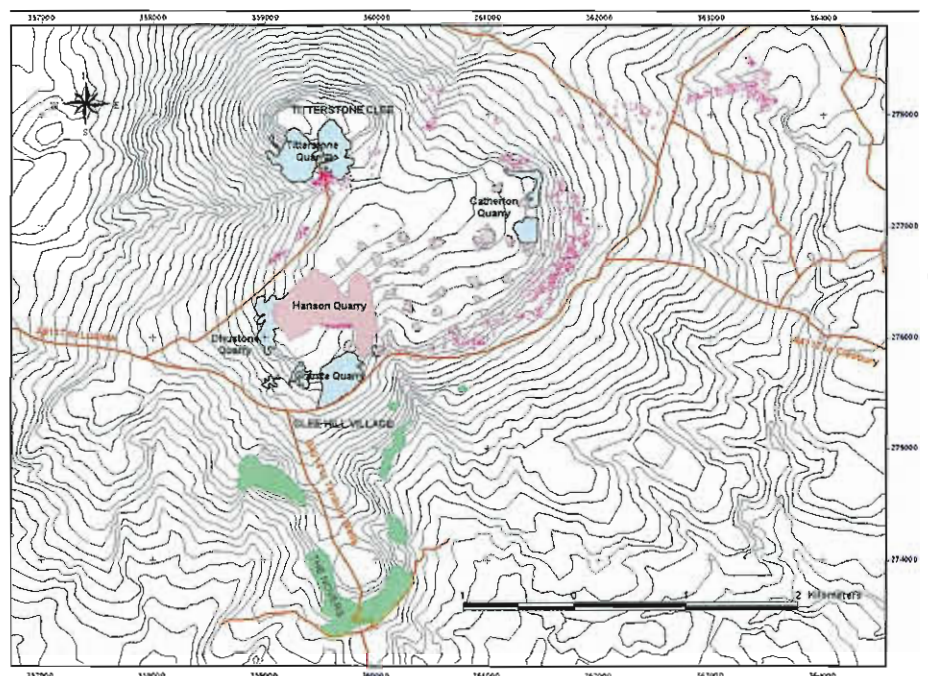
In the medieval period coal and ironstone were being mined, with the iron processed by workers in Ludlow. The first deposits to be exploited were near the surface and exist around the flanks of Clee Hill extending eastwards to Catherton Common. The ground here is pockmarked by the numerous shallow shafts, known as 'bell pits', and trenches, associated with low mounds of spoil. These simple underground workings were invariably cramped and poorly ventilated. The demand for coal and ironstone continued to grow resulting in large tracts of land cut by bell pits and covered with spoil, but by the 18th century the shallow reserves became depleted and shallow mining became unprofitable.



Section through a bell pit

The ironstone was highly prized and the iron produced in the furnaces at Bringewood (about 5 kilometres to the west of Ludlow) in the 18th century was regarded as equal in quality to the best produced in Sweden. Ironworks were also established around the southern flanks of Clee Hill, with some works continuing until the mid 19th century. These ironworks became increasingly dependent on locally extracted coal for fuel.

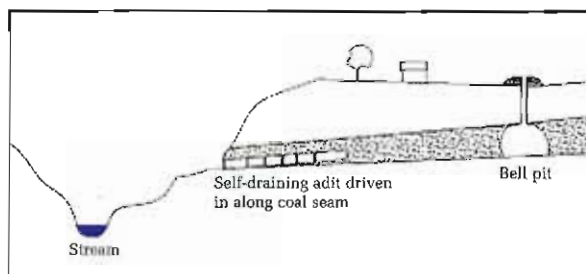
The extraction of limestone had certainly begun by the 16th century. The most accessible outcrops were quarried first, on the north eastern and south western slopes of Clee Hill. By the late 18th century the focus had shifted to the southern slopes of the hill. In most cases the stone was quarried, but occasionally it was mined. The limestone was burnt using coal, in kilns situated close to quarries. Lime was used as fertilizer and for making mortar. Technological developments in iron working meant that limestone was commonly used as flux to draw off impurities from the iron during the smelting process. At Oreton, south of Clee Hill, 'Clee Hill Marble', a form of limestone, became valued as a high-quality building stone.



Titterstone Clee extractive industries past and present. The active Hanson quarry is roughly central on this map, disused quarries in light blue, coal workings in magenta and the limestone quarrying in green.

Other industries became established in the area during the 17th and 18th centuries - glass working, pottery manufacture, brick and tile making, and paper making. The success of these industries depended on investment to capitalise on developing markets, advances in technology and availability of suitable energy sources - water, charcoal and coal.

Coal output rose steadily on the Cleve Hills during the 18th and 19th centuries fuelled by the demands of industry and the domestic market. In order to satisfy these needs new methods of mining were developed to get to the deeper seams. Drift mines, where tunnels were driven into the hillside to follow the coal and ironstone seams, were sometimes dug. More commonly, deep shafts were sunk with the aid of sophisticated winding gear. Increased output led to the formation of large spoil heaps close to the pit heads, which survive as large flat-topped mounds with radiating fingers of spoil. Many of these collieries (large mines) were served by a network of tracks to transport the coal off the hill. A significant number of these tracks still remain. Another distinctive aspect of the area is the former houses of miners, often constructed of dhustone.



Section through simple self-draining drift mine

© University of Birmingham

Economic factors concerning accessibility of the coal from under the dhustone and its transportation resulted in the decline of the industry in the late 19th century and its eventual demise in the 1920s. The longevity of the mining industry on the Cleve Hills and the nature of the surviving remains, have led to the formation of a landscape where changes in organisation and technology can be fully appreciated. It is rightly regarded as one of the best-preserved historic mining landscapes in Britain.



Bell pits and squatter settlements on Catherton Common

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Above: Looking NE across Cleve Hill to 19th century spoil tips of Cornbrook and Whatshill Collieries, with a capped shaft in the foreground.

© Andrew Jenkinson

During the late 19th century the Cleve Hills saw dramatic changes stimulated by the construction of the Ludlow to Cleve Hill Railway in 1863. While coal mining was declining, the quarrying of dhustone quickly established itself as the major industry on the hills. Dhustone is hard and durable, and is ideal for certain types of construction, as blocks or as aggregate, or as roadstone, whether as chippings, or as setts and kerbstones. There were three principal quarrying areas - to the north of Clevehill village, on Titterstone Cleve Hill and on the north eastern edge of Cleve Hill. From these quarries huge amounts of stone were extracted and massive spoil heaps were created. Long inclined planes were built to get the stone from the quarries near Clevehill and on Titterstone Cleve to the railway terminus at Bitterley Wharf. In the case of the quarry at the north eastern end of Cleve Hill an aerial ropeway was built to



Right: Top of the incline from where loaded trucks were released. In the background is the drum house from which ran the wire rope to be attached to the trucks.

© Shropshire County Council

Ditton Priors. The courses of much of this transport infra-structure survive well and in the quarry at Titterstone Cleve substantial and impressive remains exist of the plant used for crushing and sorting of the rock. A reservoir fed by Benson's Brook was created to drive turbines producing electricity for some of the plant. This hydro-electric scheme is one of the oldest in the country and the dam survives largely intact.

The quarrying industry in this area was sustained by a dramatic influx of workers and their families, coming from Leicestershire, Devon, North Wales and Ireland. In response to this, rows of terraced houses (a new architectural form in the Cleve Hills landscape) such as those at Bedlam and Horseditch, were built to accommodate the new arrivals.

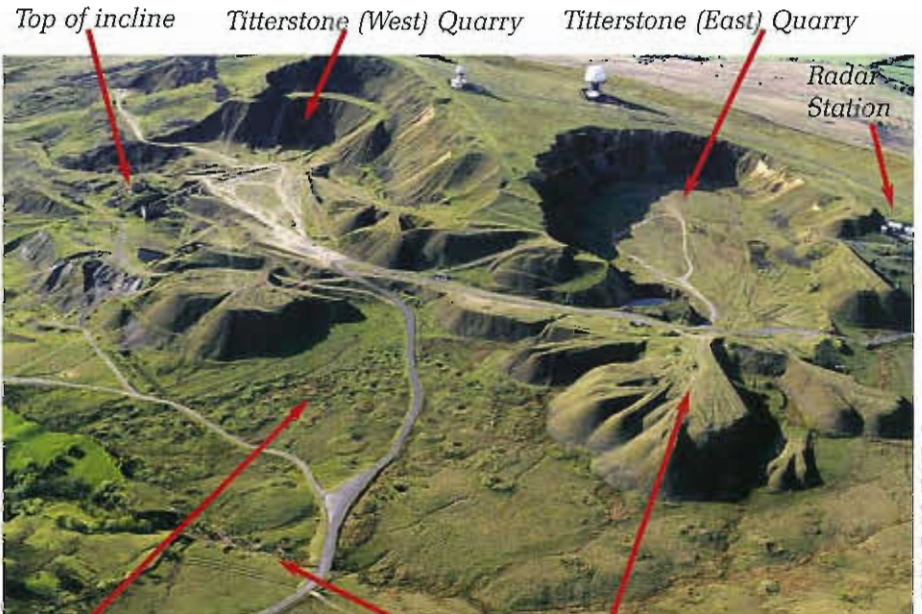


Workers' housing

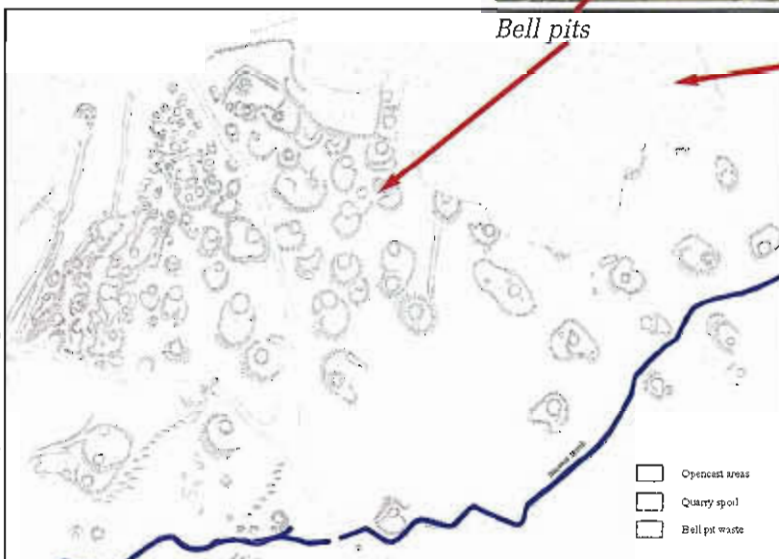


Quarry workers early 1900s

The amount of dhustone quarried declined significantly in the early 1960s. It was at this time that the vestiges of the associated rail system closed. The only quarry now operating in the area is the Hanson plc Cleve Hill Quarry, which employs a small labour force - a mere fraction of the number working in the quarries a hundred years ago. The changes that have occurred to this industry over a relatively short period of time have left an enduring legacy - earthworks and structures which are regarded as some of the most important in the history of modern quarrying.



Benson's Brook Dhustone spoil heaps

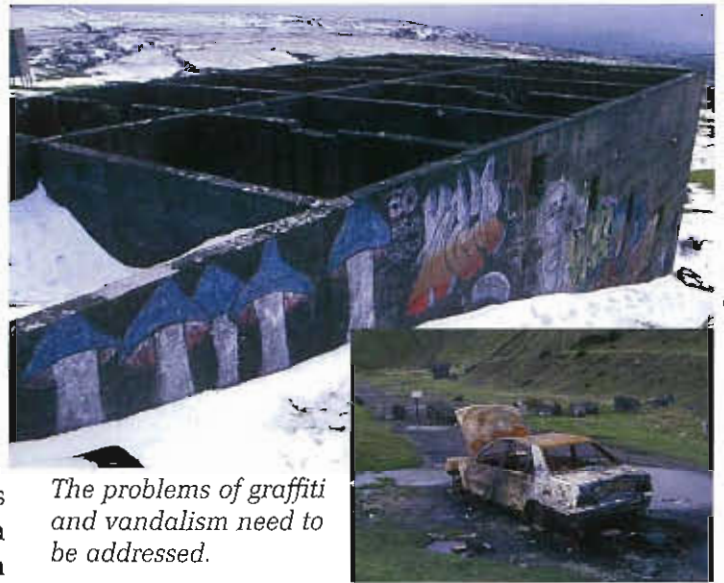


Above: Aerial photo clearly showing earthworks from early bell pit coal mining and later dhustone quarrying.

Left: Surveyed bell pits above Benson's Brook

A framework for managing the historic landscape

The present statutory controls applicable to this area (*i.e.* scheduling, listing and conservation area status - soon to be incorporated into a Register of Historic Assets), together with government guidance on planning proposals, form the basis for managing the archaeological remains and historic structures. In addition, sustainable management, or conservation, of the historic environment can be achieved through Environmental Stewardship Schemes, organised by the Rural Development Service of DEFRA, and the Forestry Commission's Woodland Grant Schemes. Advice on such conservation matters is available from English Heritage, Shropshire County Council, South Shropshire District Council and the Rural Development Service.



© Roger White

The problems of graffiti and vandalism need to be addressed.

The Titterstone Clee Heritage Trust (TCHT) has a fundamental role in furthering the conservation of the historic environment of the Clee Hills through its contacts with land owners and tenants, and liaising with the advisors in the organisations noted above. It also has a key role advancing proposals for interpreting the landscape of the area.

The draft Conservation Plan produced for the Clee Hills makes a series of specific recommendations. These are summarised below.



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Practical conservation work

The draft Plan sets out recommendations for practical conservation work on archaeological monuments including controlling invasive vegetation, erosion repair and controlled grazing.

The draft Plan also identifies the need for remedial work on certain quarry buildings, for example in the Titterstone (West) Quarry, in order to make them safe and suitable for public presentation.



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Titterstone (West) Quarry - concrete stone crusher and sorter. Inset shows deterioration of steel reinforcing bars causing flaking of concrete. The structures above supported the overhead supply track from the quarry.

Top: Looking east across Titterstone (West) Quarry workings c.1910. The roof of the 1881 'drum house' can be seen bottom left (location of photo arrowed on inset map).

Bottom: The similar view today - the revetment wall at the base of the slope can be seen in both images as can the embankment top left. The building in the foreground of the first image is hidden behind the later hopper in the lower image.

Legal protection

In addition to the legal protection already given to the prehistoric monuments and some of the mining remains, proposals are made in the Plan to give a further five areas/features statutory protection. These are:

★ A part of the Dhustone Quarry. One part of this quarry from the late 19th century survives intact, together with the remains of the associated rail spur.

★ The quarry buildings in the Titterstone (West) Quarry.

★ The quarry buildings on Clee Hill (the Catherton Quarry). These structures, together with those in the Titterstone (West) Quarry, are early examples of ferro-concrete construction. Many survive largely intact. Their importance is further enhanced by a comprehensive photographic archive showing their use.

★ The Titterstone to Bitterley Incline. This 2 kilometre earthwork is a substantial landscape feature in an excellent state of preservation and is of crucial importance for understanding the industrial history of the area.



Titterstone (West) Quarry stone crusher base in 1920s and as it survives today.

Left: © Shropshire County Council Right: © G. Barratt



© Shropshire County Council



© Glynn Barratt

The Titterstone to Bitterley Incline - the 1930 photograph on the left is taken a little below the present-day photograph. The concrete posts seen in the 1930 image can be seen as stumps in the later image.

★ The post-medieval deserted farmstead of Newfound Well on the north eastern slope of Titterstone Clee. The remains of this settlement have the potential, through detailed archaeological investigation, to provide a wealth of information about living conditions of mining families living in the 18th and 19th centuries.

All these areas/features are publicly accessible and form key elements for the interpretation of the industrial landscape.

Recording and research

Work on specific sites, including community-based recording programmes, could be undertaken on:

★ The Titterstone Clee hillfort to discover more about its construction and use, and its relationship with the earlier burial monuments.

★ The Titterstone (West) Quarry to understand more about its chronological development in relation to the plant constructed there.

★ The Bitterley sidings to provide a detailed record of what survives, which could be compared with the construction drawings and contemporary photographs.

★ The Newfound Well farmstead to provide a detailed insight into the lives of the inhabitants.



Archaeological survey in progress.

© Roger White

Interpretation and presentation

One of the principal aims of the project was to facilitate greater public awareness of, and access to, the extensive archaeological resource on the Clee Hills. This may be achieved in various ways and could include themed walks, improved signage and the use of IT-based information devices.

More ambitious and long-term goals are the development of visitor centres at The Novers limestone workings and kilns, and within the Titterstone (West) Quarry.

Education and training

Work undertaken as part of the project has demonstrated the huge potential of the archaeological resource for education in local schools, colleges and universities, and for events run for the wider community. Partnerships between Hanson plc and Ludlow Museum Resource Centre and the Secret Hills Discovery Centre have been crucial in stimulating interest and awareness of the history of the area. It is hoped that these partnerships continue and that additional opportunities can be developed by the Titterstone Clee Heritage Trust utilising the information in the Conservation Plan.

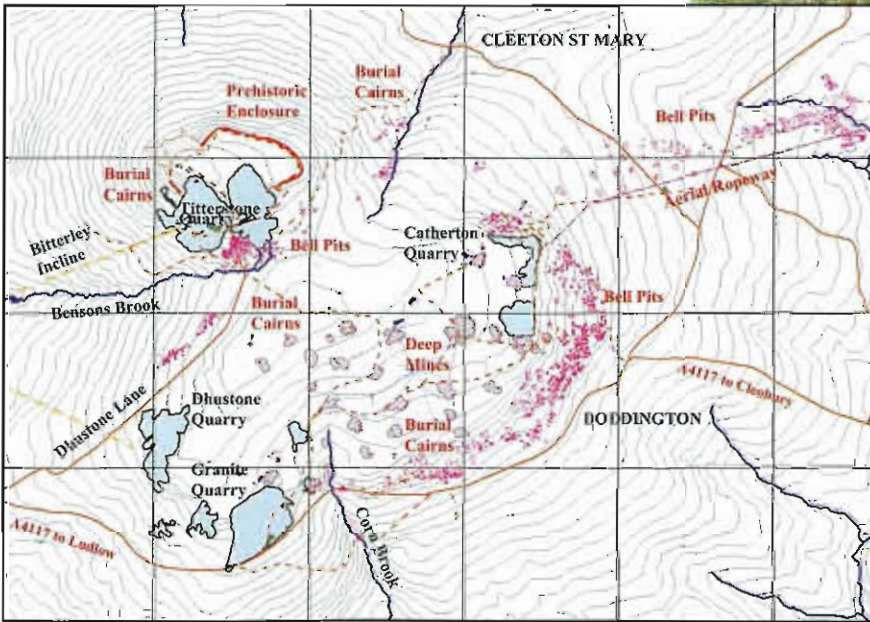


Visitor information board overlooking the Incline Quarry



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Above: Community group visiting The Novers limestone mine in May 2006, one of several well attended tours of the site.

Left: Suggested routes of heritage walks

For further information on the Titterstone Clee Heritage Trust (TCHT), please contact Alf Jenkins (Chairman, tel. 01568 780398) or Glynn Barratt (General Secretary, tel. 01299 270391)

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