

Record Name: Relict Limestone Ash Woodland with Yews on and below Orgate Scar: Part Two: The final surviving ash trees.

SWAAG ID Number: 702

Recorded Date: 2013-03-17 12:52:09

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Footpath

Record Date: 2013-03-16

Location: Orgate

Civil Parish: Marske

British National Grid: NZ 090 020

Altitude: 230m to 320m

Geology: Talus slopes below cliff formed from Richmond Cherts over The Main Limestone

Description: This record is the second of five records which together are intended to provide a photo portrait of the relict woodland which survives on and below Orgate Scar from the western end of the Scar at NZ09000200 to the wall which forms the boundary between Orgate Scar and Clints Scar at NZ09520208.

The five parts are defined as follows.

SWAAG Record Nos 195 and 700 Part One: An introduction to the Ash and Yew Dominant Woodland on and below Orgate and Clints Scars as seen in Early Summer and in Late Winter.

SWAAG Record Part Two: Relict Limestone Ash Woodland below Orgate Scar and comprises photofile of ash trees selected to be representative of the final survivors of species rich limestone ash woodland once present across the whole of the fell side below Orgate Scar, now open rocky scree and flower rich stony pasture.

SWAAG RECORD Part Three: Four very large Yew trees rooted at the top of the limestone scree below the cliff.

SWAAG Record Part FOUR: The Cliff Edge Yews and Trees of Other Species on the face of Orgate Scar.

SWAAG Record Part FIVE: The vegetation on and below Orgate and Clints Scars.

Dimensions: See photos.

Species: Ash

Additional Notes: The ash tree is the tree most characteristic and special to the scenery of the Dales and in the event that these trees are decimated or lost completely to the imminent scourge of Ash Die Back Pathogen, the dales scene will be very different. Ash die back disease may have the capacity to decimate all ash trees from the Dales Landscape.

Accordingly photographs may soon be the only record of these trees.

However, as the photographs of wind fallen trees show, the number of Mature Ash Trees on the Dale Sides has been diminishing every year. A number of fine ash trees are lost with every gale. These mature trees cannot be replaced by plantation trees which will always look like plantations. Plantation trees will enjoy or endure a different history to the trees present today which were within native woodland or managed as hedgerow trees.

Last Update: 2013-03-26

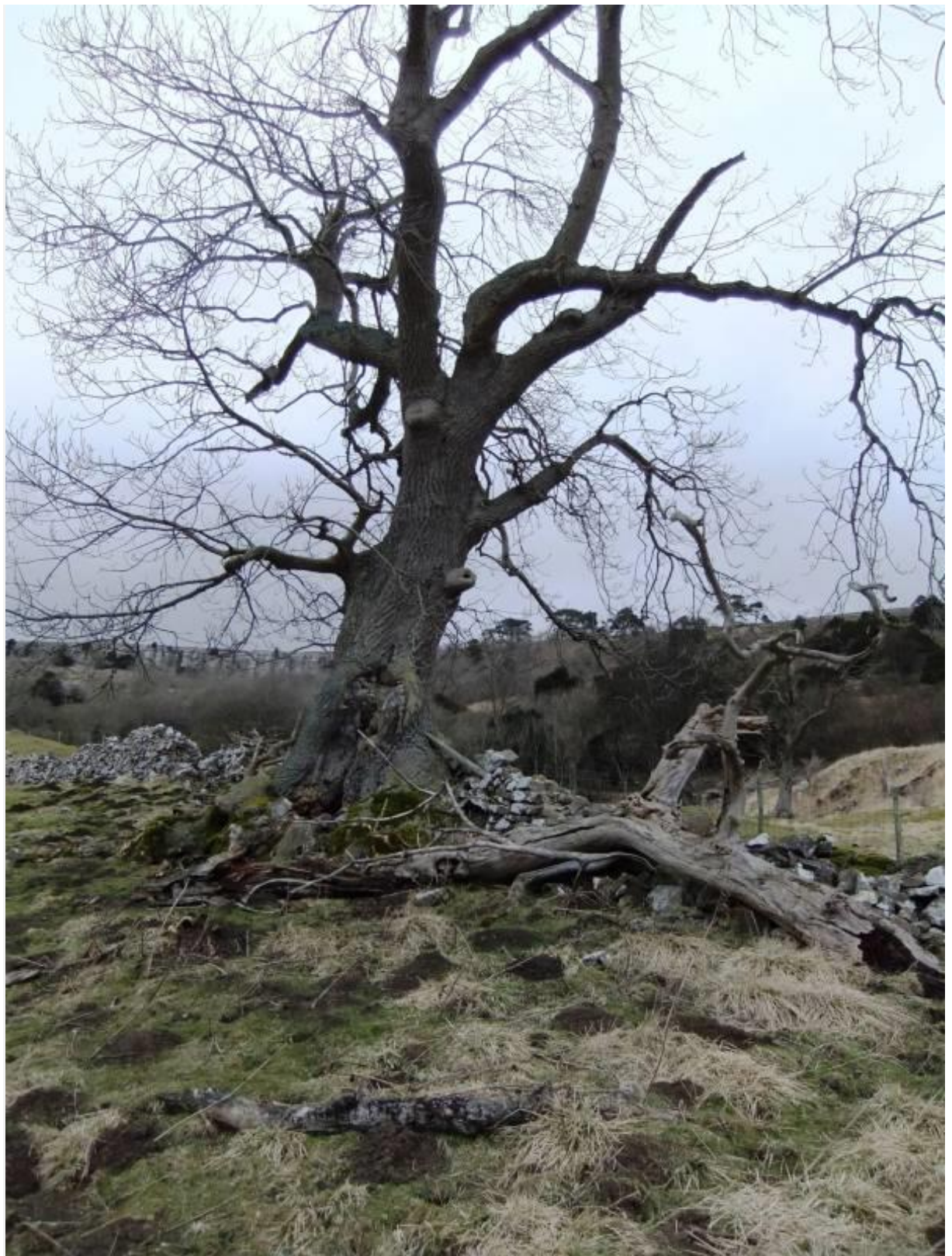
Tree Geographical Area: Swaledale North Bank Catchment



Record Number 702 >>> Image 1: Ash trees below Orgate Scar. Prehistoric round house in foreground.



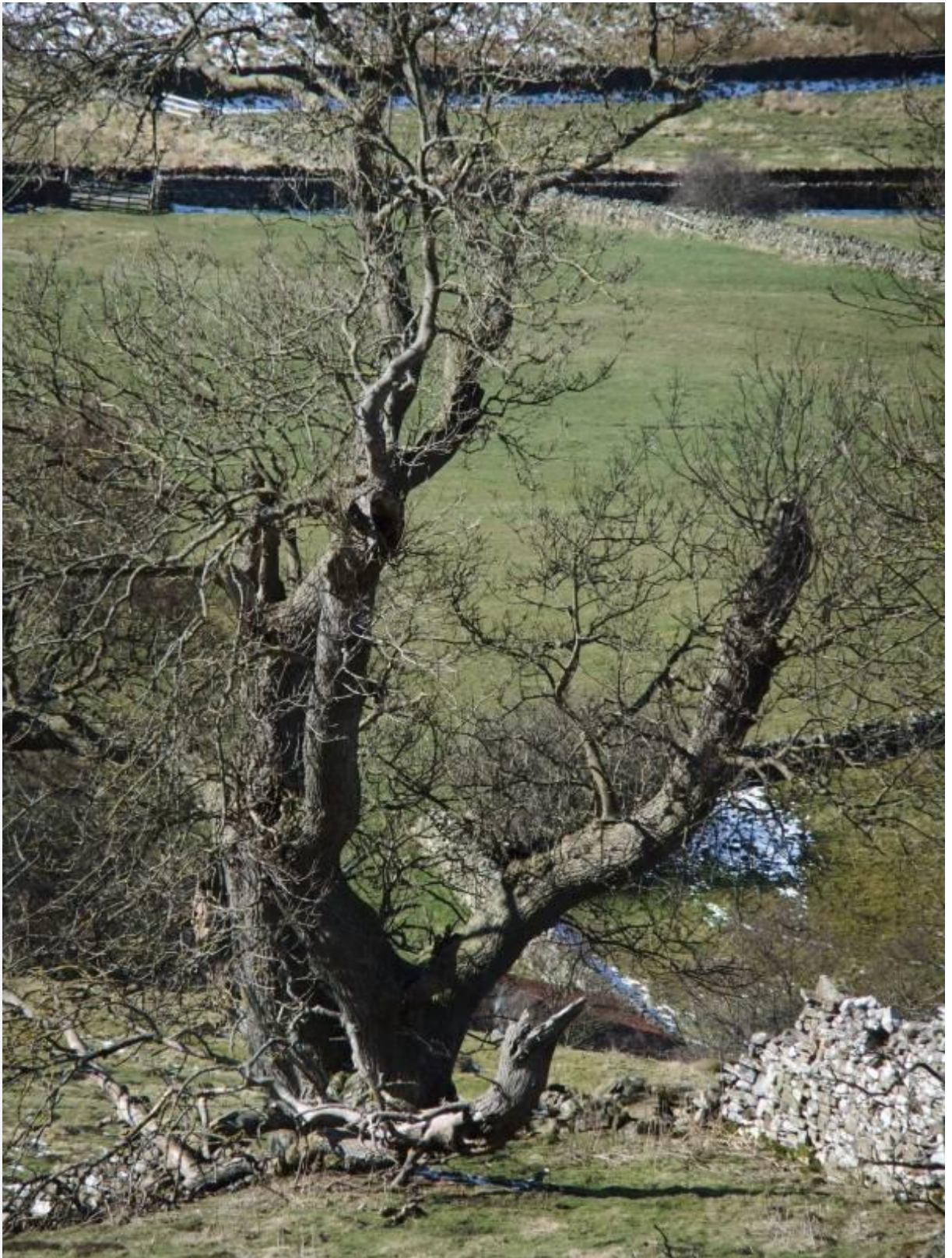
Record Number 702 >>> Image 2:



Record Number 702 >>> Image 3:



Record Number 702 >>> Image 4:



Record Number 702 >>> Image 5:



Record Number 702 >>> Image 6:



Record Number 702 >>> Image 7:



Record Number 702 >>> Image 8:



Record Number 702 >>> Image 9:



Record Number 702 >>> Image 10:



Record Number 702 >>> Image 11:



Record Number 702 >>> Image 12:



Record Number 702 >>> Image 13:



Record Number 702 >>> Image 14:



Record Number 702 >>> Image 15:



Record Number 702 >>> Image 16:



Record Number 702 >>> Image 17:



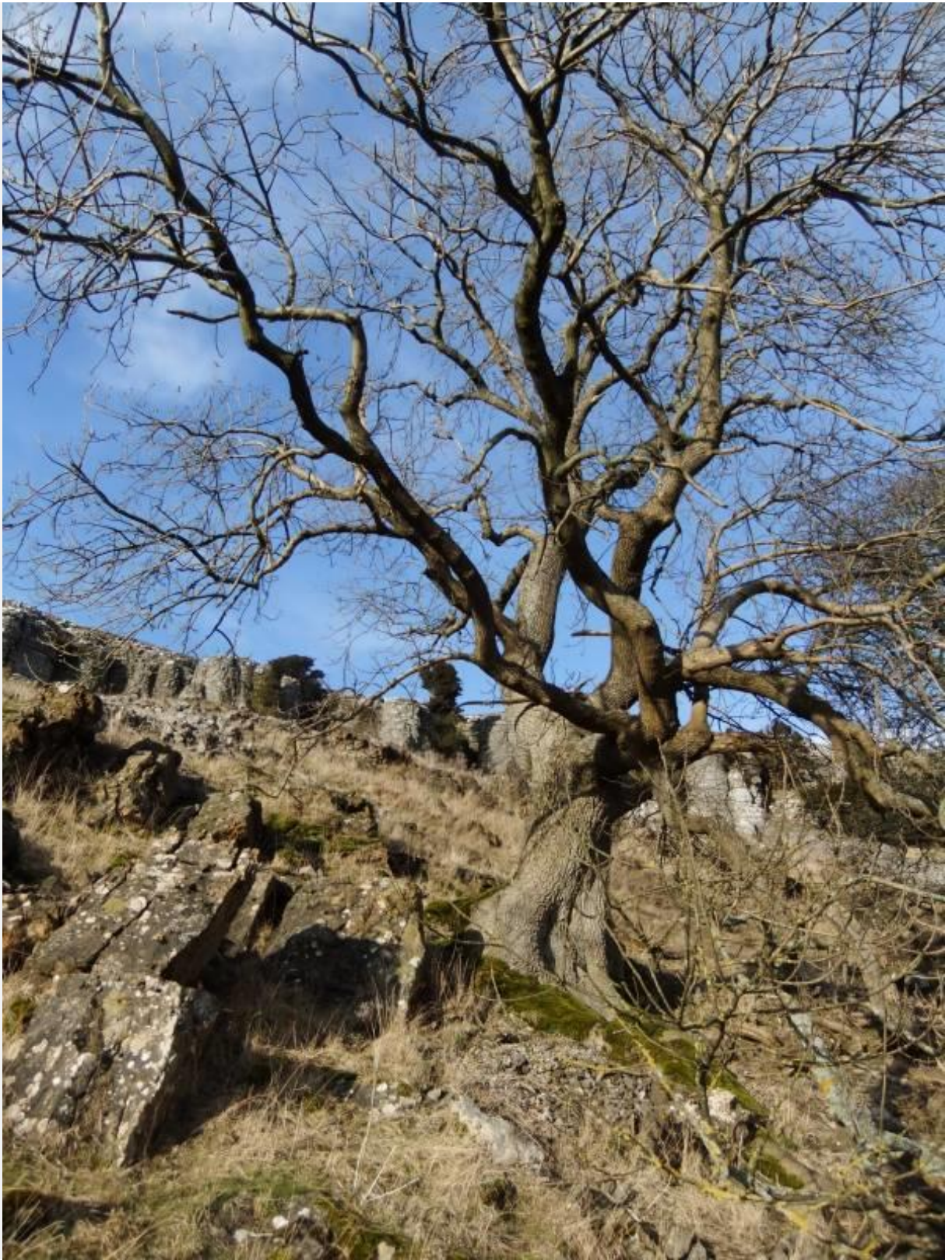
Record Number 702 >>> Image 18:



Record Number 702 >>> Image 19:



Record Number 702 >>> Image 20:



Record Number 702 >>> Image 21:



Record Number 702 >>> Image 22:



Record Number 702 >>> Image 23:



Record Number 702 >>> Image 24:



Record Number 702 >>> Image 25:



Record Number 702 >>> Image 26:



Record Number 702 >>> Image 27:

Record Name: Fossil plant from Ten Fathom Grit Outcrop. This branching plant has the general appearance of a freshwater alga, somewhat similar to Chara.

SWAAG ID Number: 703

Recorded Date: 2013-03-23 16:20:05

Recorded by: Tim Laurie

Category: Geological Record

Record Type: Geological HER

Site Access: Public Access Land

Record Date: 2005-01-01

Location: Ivelet Moor. Beale Hill Scar

Civil Parish: Muker

British National Grid: SD 916 988

Altitude: 460m

Geology: Namurian sandstone. The Ten Fathom Grit. Rock outcrop quarried for new access road and ditch.

Description: Fossil plant, species as yet unidentified, which has the general appearance of a branching freshwater alga, somewhat similar to Chara. Found in ditch recently excavated beside new access road.

Dimensions: See scaled photographs

Additional Notes: Any suggestions as to the identity of this fossil will be gratefully received.

Last Update: 2013-03-23



Record Number 703 >>> Image 1:



Record Number 703 >>> Image 2:



Record Number 703 >>> Image 3:



Record Number 703 >>> Image 4:

Record Name: The Ivelet Wood Project. Survey and Excavations of Charcoal Burning Platforms and Wood Kilns. Tom Gledhill, 1992-3.

SWAAG ID Number: 704

Recorded Date: 2013-03-24 10:56:02

Recorded by: Tim Laurie

Category: Mining Related

Record Type: Industrial Archaeology

Site Access: Public Footpath

Record Date: 2005-01-01

Location: Ivelet Wood

Civil Parish: Muker

British National Grid: SD 910 990

Altitude: 300m

Geology: Glacial drift and scree over the Three and Five Yard Limestone strata, below the outcrop of the Underset Limestone.

Description: This Record is a preliminary note of the Ivelet Wood Project which was carried out by Tom Gledhill with Ros Nichol during late spring and early summer 1992-3 and is based upon a visit to Ivelet Wood to see the excavations then in progress of one charcoal burning platform and one wood kiln.

Tom Gledhill has very kindly agreed that the full Ivelet Wood Project Report (SYD12785 'Ivelet Wood Project: Survey and Excavation 1992-3'. Thomas Gledhill, 1993) can be uploaded to the SWAAG Website and it is hoped that this Report on work which provides an essential detailed insight into the Development, Past and Present Composition and the Industrial Activities within Ivelet Wood will be available under the Publications Section at [www.swaag.org](http://www.swaag.org) in the very near future.

Dimensions: See photographs

Additional Notes: The Aims of the Ivelet Wood Project were defined as:

'To investigate the past tree composition of Ivelet Wood by identification and statistical analysis of charcoal fragments, and by pollen analysis; to confirm the nature and purpose of the charcoal platforms and kilns by excavation; to date the industrial exploitation of the wood by C14 dating; to explore the relationship between the various structures and the probable mode and direction of transport of the products by survey.'

Last Update: 2013-03-24



Record Number 704 >>> Image 1: The Ivelet Wood Project, Tom Gledhill, 1992-3. Excavations at the Charcoal Burning Platform in progress.



Record Number 704 >>> Image 2: The Ivelet Wood Project, Tom Gledhill, 1992-3. Excavations at the Charcoal Burning Platform in progress.



Record Number 704 >>> Image 3: The Ivelet Wood Project, Tom Gledhill, 1992-3. Excavations at the Wood Kiln in progress. A total of 6 definite and 1 possible Wood Kilns were identified during the Project Survey.



Record Number 704 >>> Image 4: A charcoal burning platform at the northern end of Ivelet Wood, one of 31 similar charcoal burning platforms within Ivelet Wood identified during the Survey.



Record Number 704 >>> Image 5: The track through Ivelet Wood, a recent photo.



Record Number 704 >>> Image 6: Alder Carr on the Swale Flood Plain below Ivelet Wood.



Record Number 704 >>> Image 7: An isolated Yew Tree below the Underset Limestone at the top of Ivelet Wood.

Record Name: Calcite fragment from spoil heap.

SWAAG ID Number: 705

Recorded Date: 2013-03-24 16:48:00

Recorded by: Tim Laurie

Category: Geological Record

Record Type: Geological HER

Site Access: Public Access Land

Record Date: 2005-01-01

Location: The Copperthwaite Vein

Civil Parish: Marrick

British National Grid: NZ 055 001

Altitude: 425m

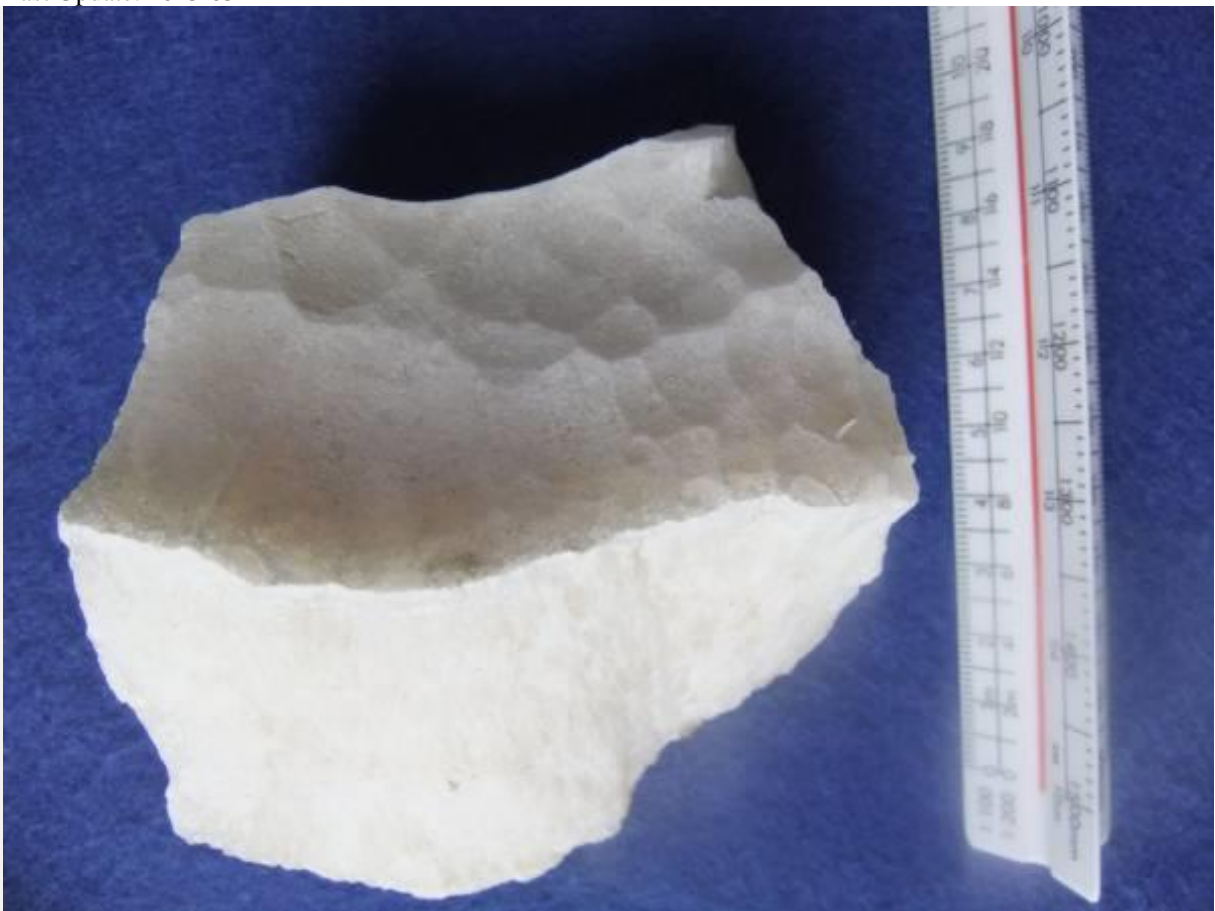
Geology: Lead mining ground on the Copperthwaite Vein in The Richmond Cherts.

Description: This calcite fragment which had been dug out by a mineral collector from the spoil heaps on Copperthwaite Allotment then broken and discarded, shows the dimpled surface from its original formation as being deposited from lime rich ground water to form the lining to a void in the limestone. Calcite,  $\text{CaCO}_3$ , is the main constituent of limestone.

Dimensions: See photos

SWAAG Site: Copperthwaite and Raygill Allotments and Stelling

Last Update: 2013-03-24



Record Number 705 >>> Image 1:



Record Number 705 >>> Image 2:

Record Name: Limonite or Yellow Ochre from Orgate Scar

SWAAG ID Number: 706

Recorded Date: 2013-03-24 17:38:14

Recorded by: Tim Laurie

Category: Geological Record

Record Type: Geological HER

Site Access: Public Access Land

Record Date: 2013-03-16

Location: Orgate Scar

Civil Parish: Marske

British National Grid: NZ 095 021

Altitude: 325m

Geology: Richmond Chert over The Main Limestone

Description: Limonite or Yellow Ochre is present at many if not all mineralised faults in the Pennines and elsewhere. Limonite also occurs as Bog Iron Ore. Alteration product of other iron minerals.

Dimensions: See photos

Additional Notes: Yellow ochre and haematite, which provides a red-brown colour, both being ores of iron, were used as a pigment from the Late Palaeolithic onwards. The brownish colour of the limestone in the vicinity of lead veins is due to iron minerals. Haematite nodules have been recorded with lithic scatters of Early Mesolithic Age in Teesdale.

Last Update: 2013-03-24



Record Number 706 >>> Image 1: Limonite from Orgate Scar.

Record Name: Swinnergill. The highest recorded yew in Britain

SWAAG ID Number: 707

Recorded Date: 2013-03-24 18:39:49

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 0000-00-00

Location: On west facing cliff above the eastern side of Swinnergill

Civil Parish: Muker

British National Grid: NY 9129 0102

Altitude: 470m

Geology: Exposed strata at or just below the Crow Limestone

Description: CLIFF YEW. This isolated yew tree grows on the top edge of a high scar or cliff above the eastern side of Swinnergill.

At 470m AOD this yew is at the highest recorded limit of yew in Britain (Pearmain,D.A. and Corner,R.W.M. 2003. Altitudinal Limit of British and Irish Vascular Plants.) The existing recorded highest yew is also 470m AOD at Purple Mountain, Co Kerry, Ireland.

However the previous record is on the far more congenial western, atlantic side of Britain.

Conditions on this west facing NE Pennine cliff are much more continental and extreme.

The girth of this self or wind coppicing tree is 2.5m and the rate of growth at this altitude and exposure conditions will be extremely slow.

The exposed root system indicates loss of the cliff face from expansion of the yew tree roots which were originally within the rock face.

Dimensions: 2.5mgirth

Species: Yew

Scientific Name: *Taxus baccata*

Common Notable Species: Rowan the only other tree here.

Tree Stems/Girth: 2.5m

Tree Position/Form/Status: Cliff tree. Isolated.

Last Update: 2013-03-25

Tree Geographical Area: Upper Swaledale



Record Number 707 >>> Image 1: Telephoto of Swinnergill from Kisdon. The Swinnergill Yew is the isolated yew at the top right of the photo.



Record Number 707 >>> Image 2: Telephoto of Swinnergill from Kisdon. The Swinnergill Yew is the isolated yew at the top centre of this photo.



Record Number 707 >>> Image 3: The Swinnergill Yew is on a low cliff above the footpath.



Record Number 707 >>> Image 4: The Swinnergill Yew is on a low cliff above the footpath.



Record Number 707 >>> Image 5: The Swinnergill Yew. Detail of the self coppiced trunks and exposed root.



Record Number 707 >>> Image 6: The Swinnergill Yew. Detail of the self coppiced trunks and exposed root.



Record Number 707 >>> Image 7: The Swinnergill Yew is on a low cliff above the footpath. View southward.

Record Name: Orgate Scar. Four very large yew trees rooted in the limestone scree at the foot of the sheer scar.

SWAAG ID Number: 708

Recorded Date: 2013-03-26 14:07:54

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-03-16

Location: Orgate Scar West from the west end of the Scar to the wall which forms the boundary with Clints Wood.

Civil Parish: Marske

British National Grid: NZ 0944 0212

Altitude: 315m

Geology: Talus or scree slope below sheer cliff formed from Richmond Chert strata overlying the Main Limestone.

Description: This record is the Part Three of a SWAAG Record in Five Parts each Part recorded on a separate record which together are intended to provide a photo portrait of the relict woodland which survives on and below Orgate Scar. Orgate Scar is the western section of Clints Scar and extends for a distance of 500m west from the wall which forms the boundary between Orgate Scar and Clints Scar at NZ09520208.

The five parts to this Photo Record of Orgate Scar are defined as follows.

SWAAG Record No 195 Part One A: An introduction to the Ash and Yew Dominant Woodland on and below Orgate and Clints Scars as seen in Early Summer.

SWAAG Record No 700 Part One B: An introduction to the Ash and Yew Dominant Woodland on and below Orgate and Clints Scars as seen in Late Winter.

SWAAG Record No 702 Part Two: Relict Limestone Ash Woodland below Orgate Scar, comprising photofile of ash trees selected to be representative of the final survivors of species rich limestone ash woodland once present across the whole of the fell side below Orgate Scar, now scattered old trees on open rocky scree and flower rich stony pasture.

SWAAG RECORD No 708 Part Three: Four very large Yew trees and one ash tree all rooted at the top of the limestone scree below the cliff.

SWAAG Record No To follow Part FOUR: The Cliff Edge Yews and Trees of Other Species on the face of Orgate Scar.

SWAAG Record No 710 To follow Part FIVE: The vegetation on and below Orgate and Clints Scars. Species: Yew

Additional Notes: All four of the very large yew trees photographed in this Record are rooted in scree at the foot of the cliff. All of these trees have been recorded within the Woodland Trust Ancient Tree Hunt (ATH) and rated as Ancient Trees.

Details of the four yew trees are as follows:

A.T.H.	Girth	SWAAG Image No
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Tree No		
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62568	4.40m Estimated	
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62711	4.00m Estimated	
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62710	6.40m	
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62709	4.00m Estimated, but looks to be more!	
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Last Update: 2013-03-27

Tree Geographical Area: Swaledale North Bank Catchment



Record Number 708 >>> Image 1: View southward over Clints Wood from Yew No 3 at the base of the Scar



Record Number 708 >>> Image 2: View of the Scar Winter.



Record Number 708 >>> Image 3: Orgate Scar and Yew No 1



Record Number 708 >>> Image 4: Yew No 1



Record Number 708 >>> Image 5: Yew No 1 4.40m girth.



Record Number 708 >>> Image 6: Yew No 1 as seen from the west in September 2010. This yew rises from a bole which is part visible below scree and is 4.40m in girth.



Record Number 708 >>> Image 7: Yew No 1 4.40m girth. Detail of base of tree in scree.



Record Number 708 >>> Image 8: Yew Nos 2, 3 and 4 in scree at base of Orgate Scar



Record Number 708 >>> Image 9: Yew Nos 2, 3 and 4 in scree at base of Orgate Scar



Record Number 708 >>> Image 10: Yew Nos 3 and 4 in scree at base of Orgate Scar



Record Number 708 >>> Image 11: Yew No 1 and western end of Orgate Scar



Record Number 708 >>> Image 12: Yew No 1 and western end of Orgate Scar



Record Number 708 >>> Image 13: Yew No 1 and western end of Orgate Scar



Record Number 708 >>> Image 14: Yew No 1 and western end of Orgate Scar



Record Number 708 >>> Image 15: Yew No 1 and western end of Orgate Scar



Record Number 708 >>> Image 16: Yew Nos 2,3 and 4 at the top of the scree, seen from below.



Record Number 708 >>> Image 17: Yew Nos 3 and 4 seen from below with scattered ash trees.



Record Number 708 >>> Image 18: Yew Nos 2,3 and 4



Record Number 708 >>> Image 19: Yew Nos 2,3 and 4 seen from the west.



Record Number 708 >>> Image 20: Yew Nos 2,3 and 4 seen from below with cliff edge yews



Record Number 708 >>> Image 21: Yew Nos 2,3 and 4 seen from below with cliff edge yews



Record Number 708 >>> Image 22: Yew No 2. Detail at base of this tree which is recorded as 4.4m girth



Record Number 708 >>> Image 23: Yew No 3. Detail at base of this tree which is recorded as 6.4m girth



Record Number 708 >>> Image 24: Yew No 4. Detail at base of this tree which is recorded as 4.0m girth but looks to be more than that.



Record Number 708 >>> Image 25: Yew No 4 with ash tree rooted in scree at base of the Scar.



Record Number 708 >>> Image 26: The old ash tree at the base of the Scar

Record Name: Orgate Scar. Yew dominant woodland on the face and top edge of the Scar.

SWAAG ID Number: 709

Recorded Date: 2013-03-27 15:08:32

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-03-16

Location: Orgate Scar

Civil Parish: Marske

British National Grid: NZ 0945 0215

Altitude: 325m

Geology: Sheer cliff of Richmond chert strata overlying The Main Limestone

Description: Orgate Scar is the western section of Clints Scar which extends some 500m west of the wall forms the western edge of Limekiln Wood. Orgate Scar is a fully exposed, open and west facing limestone cliff in contrast to the Eastern section of Clints Scar which is well wooded. This record is the Part Four of a SWAAG Record in Five Parts each Part recorded on a separate record which together are intended to provide a photo portrait of the relict woodland which survives on and below Orgate Scar. The five parts to this Photo Record of Orgate Scar are defined as follows. SWAAG Record No 195 Part One A: An introduction to the Ash and Yew Dominant Woodland on and below Orgate and Clints Scars as seen in Early Summer. SWAAG Record No 700 Part One B: An introduction to the Ash and Yew Dominant Woodland on and below Orgate and Clints Scars as seen in Late Winter. SWAAG Record No 702 Part Two: Relict Limestone Ash Woodland below Orgate Scar, comprising photofile of ash trees selected to be representative of the final survivors of species rich limestone ash woodland once present across the whole of the fell side below Orgate Scar, now scattered old trees on open rocky scree and flower rich stony pasture. SWAAG RECORD No 708 Part Three: Four very large Yew trees and one ash tree all rooted at the top of the limestone scree below the cliff. SWAAG Record No 709 this record, Part FOUR: The Cliff Edge Yews and Trees of Other Species on the face of Orgate Scar. SWAAG Record for Part Five will follow when the vegetation has been fully recorded this summer.

Dimensions: See photographs.

Species: Ash, Yew, Elder, Blackthorn, Hawthorn, Rowan, Ivy

Common Notable Species: See Part Five of this Record, SWAAG Record To follow.

Additional Notes: Orgate Scar is the western section of Clints Scar and extends for a distance of 500m west from the wall which forms the boundary between Orgate Scar and Clints Scar at NZ09520208.

This Record will provide a photographic record of the trees which grow on the face of the cliff and on the top edge of the cliff. The vegetation on and below Orgate Scar will be recorded as Part Five of this Five Part Record, see SWAAG Record No - To follow.

The yew trees which grow below the cliff, at the top of the scree below Orgate Scar, have been recorded on the previous SWAAG Record, No 708. The wind sculpted and stunted Yew Trees recorded here on the top edge of this exposed cliff are of exceptional interest. The petrified remains of several very large and ancient yew trees still remain on the cliff where they once grew, semi fossilised and impervious to rot or wind.

Last Update: 2013-03-28

Tree Geographical Area: Swaledale North Bank Catchment



Record Number 709 >>> Image 1: Orgate Scar in summer. View westward.



Record Number 709 >>> Image 2: Orgate Scar in summer. View westward.



Record Number 709 >>> Image 3: Wind sculpted yew at top of Scar with Blackthorn.



Record Number 709 >>> Image 4: Blackthorn at top edge of the Scar with unripe sloes. Fungal attack prevented any sloes from developing in 2012.



Record Number 709 >>> Image 5: The Scar from below.



Record Number 709 >>> Image 6: The Scar from below.



Record Number 709 >>> Image 7: Petrified remnant of an ancient yew, long dead, with living yew growing from the same root system.



Record Number 709 >>> Image 8: Mature yew on face of the cliff.



Record Number 709 >>> Image 9: Young ash tree on the face of the cliff. The question now exists as to whether this young ash tree will survive Ash Die Back pathogen.



Record Number 709 >>> Image 10: Petrified remains of a large yew tree , long dead. Impervious to rot and insect damage, the semi fossilised remains of old yews persist on the cliff until torn away piece by piece by high winds.

Record Name: Harkerside Pastures seen at snow melt.

SWAAG ID Number: 710

Recorded Date: 2013-03-29 10:02:06

Recorded by: Tim Laurie

Category: Photographic Record

Record Type: Archaeology

Site Access: Public Footpath

Record Date: 2013-03-14

Location: Harkerside Pastures

Civil Parish: Grinton

British National Grid: SD 0365 9830

Altitude: 230m

Geology: Drift over Five Yard and Middle Limestone Strata.

Description: This Record of the Harkerside Pastures under melting snow conditions is based on two cropped images from a photograph of a greater area which was taken on 14th March 2013 by Edward Parker, Photographer and Author of 'Photographing Trees'. The first of these images is centred on the early settlement on the eastern side of the western of the two linear earthworks, at Dyke House Close. The second image is a cropped and further slight enlargement of the Dyke House Close area of the same photograph. Careful examination of these images will reveal a great deal of the detail of the complexity of the palimpsest of archaeological features within the Harkerside Pastures, including, at the lower right of the photographs, a second settlement core with rectangular structures, located in the lower pastures to the west of the western dike, at Whitbecks - SD03509853.

The measured survey plans of both settlements are also attached to assist with the interpretation of the photographs. For a detailed description of these settlements, see the Swaledale Ancient Land Boundaries Project Interim Reports for 1992 (No 9) and 1993 (No 10).

The photographs also show embanked and lynchetted field boundaries of different periods and of great interest, several rectangular structures scattered across the pastures which are best interpreted as of medieval date and representing the Medieval Settlement of Hercay.

Dimensions: See photograph

Additional Notes: This photograph illustrates the advantages provided in photographs taken of earthwork features under optimum conditions of low winter sun and melting snow. It is suggested that SWAAG Members take advantage of the conditions afforded to them for landscape photography, when the current snows finally thaw.

SWAAG Site: Harkerside Pastures

Last Update: 2013-03-29



Record Number 710 >>> Image 1: Harkerside Pastures photographed by Edward Parker. Settlements at Dyke House Close and Whitbecks seen under snow melt conditions together with field systems and scattered rectangular building bases within the Pastures.



Record Number 710 >>> Image 2: Harkerside Pastures photographed by Edward Parker. Settlement at Dyke House Close sited by the western of the two linear earthworks.

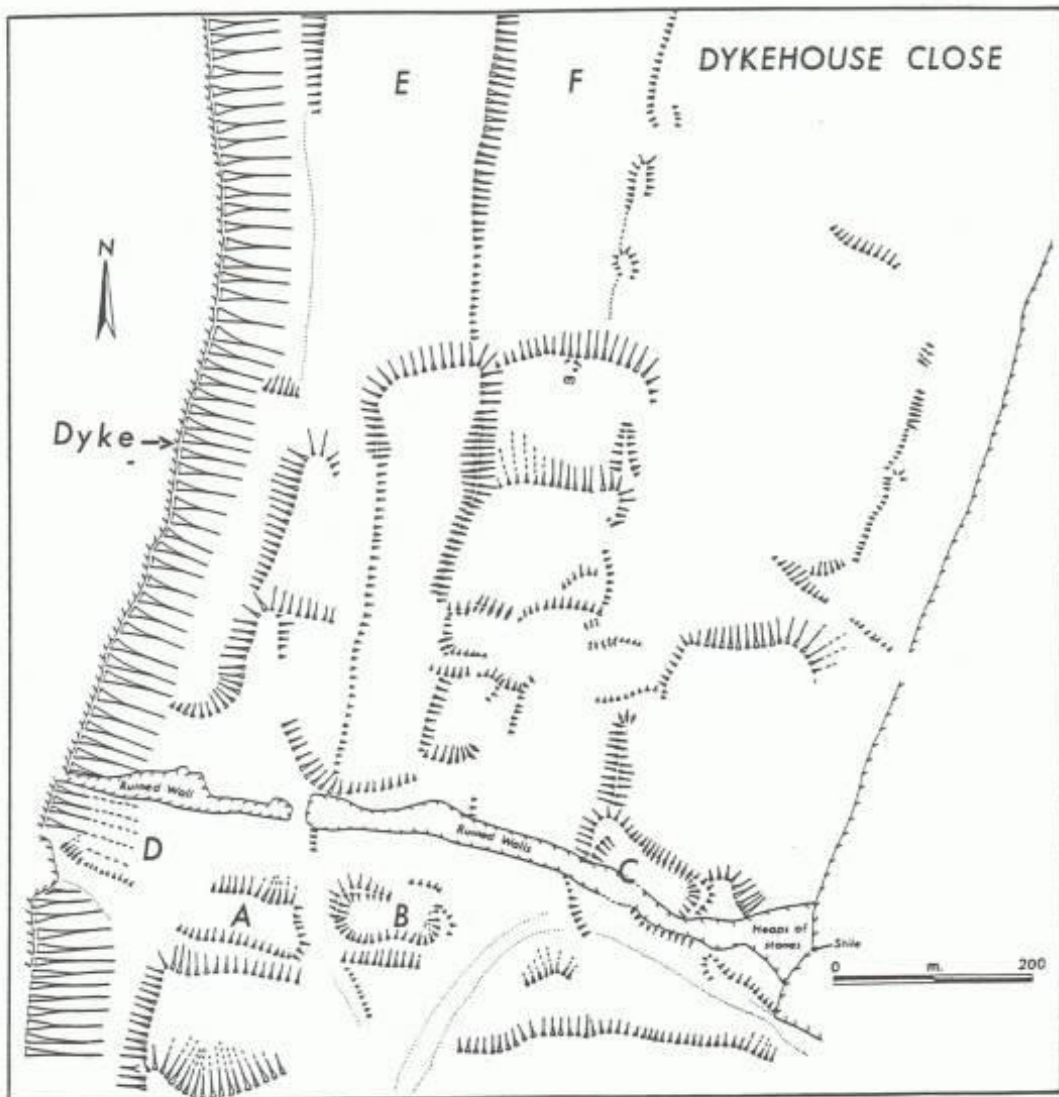


Figure 1

Record Number 710 >>> Image 3: Survey Plan. Settlement at Dyke House Close slighted by linear earthwork. Fleming and Laurie: Swaledale Land Boundaries Project Interim Report No 10, 1992.

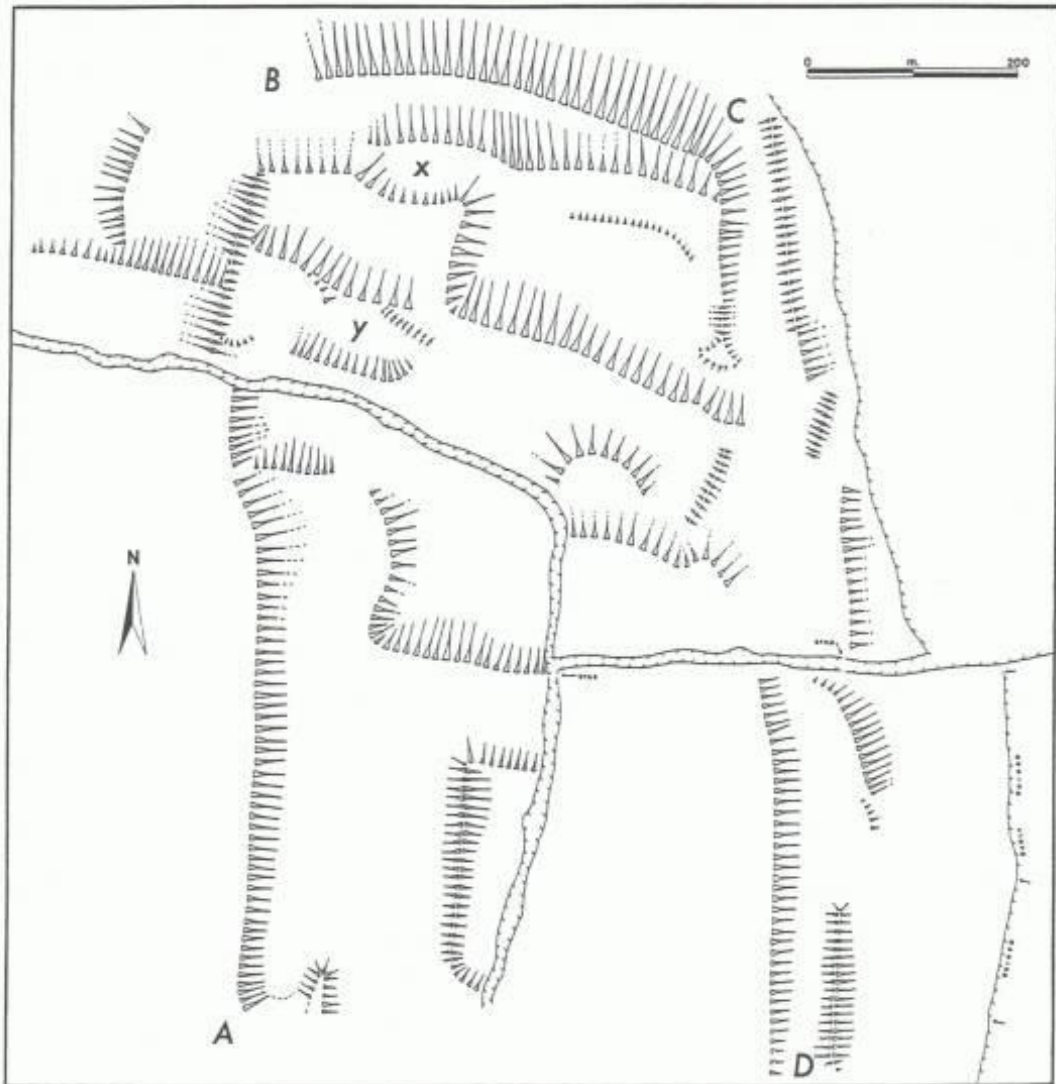


Figure 2

Record Number 710 >>> Image 4: Survey Plan. Settlement at Whitbecks. Fleming and Laurie: Swaledale Land Boundaries Project Interim Report No 10, 1992.

Record Name: The Scargill Amulet  
SWAAG ID Number: 711  
Recorded Date: 2013-04-01 12:33:31

Recorded by: Tim Laurie

Category: Lithic Find / Scatter

Record Type: Archaeology

Site Access: Public Access Land

Record Date: 0000-00-00

Location: Scargill Moor or The Stang.

Civil Parish: Scargill

British National Grid:

Geology: Not applicable

Description: The following extract from a short Note submitted by the Late Dennis Coggins who was then the Antiquities Officer at the Bowes Museum, appeared in the July Issue of Antiquity, 1982 under the heading: 'A Celtic amulet from Co. Durham.' This Note describes the circumstances of the finding of an unusually interesting stone object on Scargill High Moor in spring 1981, as follows:

'In the spring of 1981 Mr Ted Seaton, a metal detector enthusiast from Barnard Castle, brought in to the Antiquities Department of the Bowes Museum a small object which he had found exposed on an eroding ground surface on Scargill High Moor. The object was drawn and photographed before being returned to Mr Seaton. See Plate XV. It is a polished trapezoidal dark grey pebble 21mm high, 24mm wide at the base and 13mm thick. All corners are rounded. There is a biconical perforation near the apex. The base is flat and is engraved with a stylized human figure. The head of this figure is large, triangular in shape, and with all the features shown. Two horns curve upward and outward from the forehead. The torso is reduced to a single engraved line ending in a tripod or pendant. The arms extended and curving upward, have pendant fringes, while similar fringes surround the face. At the lower left hand corner of the base is engraved an eight point star. Though the engraving is crude it is assured and the figure imposing and dignified. No exact parallel for the object has so far been forthcoming though parallels for most of the individual features can be found and the affinities seem to lie with Celtic religious art.' For a more complete image of the Scargill Amulet, see the figured drawings within extracts from Stonehenge Viewpoint, Issue 50 also attached.

Dimensions: 21mm\*24mm\*13mm

Additional Notes: This stone object which is variously known as the Scargill or Seaton Amulet was the subject of further very detailed discussion and speculative interpretation within 'Stonehenge Viewpoint' Issue 50 which is a periodical publication devoted to an alternative view on 'Archaeology, Astronomy, Geology and related Arts and Sciences.' In consequence of this Publication- which reaches a very wide and extensive readership- Scargill was subject to a 'pilgrimage' of those with an interest in the science of the occult and with very different views on mainstream archaeological theory. Dennis Coggins told me that this small invasion by persons of a hippy appearance, of an otherwise mainly deserted grouse moor, well in advance of open access, was not really appreciated by the Game Keepers.

Last Update: 2013-04-01



PLATE XV: A CELTIC AMULET FROM CO. DURHAM

*The amulet is 21mm high, 24mm wide at the base and 13mm thick*

*See pp. 139-41*

*Photo: The Bowes Museum*

Record Number 711 >>> Image 1: The Scargill Amulet. Antiquity, July Issue. 1982 Plate XV.

# Stonehenge Viewpoint

● ARCHAEOLOGY, ASTRONOMY, GEOLOGY, AND RELATED ARTS AND SCIENCES ●

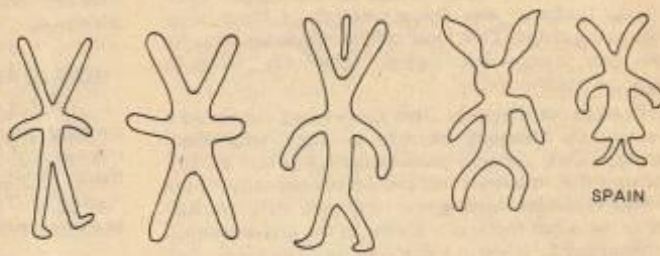


JAPANESE FAN WITH "KABUKI" DESIGN

ISSUE NUMBER 50

50

Record Number 711 >>> Image 2: Stonehenge Viewpoint, Issue 50. Cover.



HALO "STAR" OBSERVED AT ANTI-SOLAR POINT

VARIOUS YULE MEN AND WOMAN (after Barry Fell)

**THE BOWLEGGED BUNNY'S CELTIC FRIEND**

Even dragons (if patterned after alligators or crocodiles) are noticeably bandy-legged. Yet, unless we have severe cases of rickets to early shaman representatives dressed up like rabbits [a conceivable situation by the way (Ref. 16)], I think that bowlegged hares or bowlegged bunnies would be something of a rarity. This is, unless the hare-rabbit-bunny that occurs at Scarborough near Toronto is really a hidden halo hare. In such a case, the "bow" should be found worldwide!

The skeptical reader at this point might think that my analysis (being admittedly intuitive) should be regarded as sheer nonsense. If we were really being objective, we would speculate that the "Yule man" is an inter solstice halo pattern, while the bowlegged Yule man designates a spring appearance — March hare at the equinox and the Easter bunny for April. But despite this momentary lapse, we are about to spring a surprise of logic for the unrepentant skeptic.

Before telling you about the Celtic amulet that appears in the archaeological magazine *Antiquity* (1977, 17), a bit of background might be of some interest. Professor R. J. C. Atkinson is a trustee for *Antiquity* and Ruth Daniel is editor. Ruth Daniel is production editor. The present writer has met each of these charming people for serious discussions.

As readers of our own publication may recall, Professor Atkinson has graciously written to us offering assistance in our attempt to cope with prehistoric dating problems as well as other situations (Refs. 21, 22). On one occasion the present writer with his son Douglas visited Professor Atkinson at the Oxford-Cambridge Club in London as his guests. Considerable effort was spent by Professor Atkinson trying to show me the error of my supporting the Watkins ley hypothesis. "He sure let you down", commented son Douglas, afterward. Based on that experience, my own evaluation is that Professor Atkinson would be a worthy adversary in any debate. Not only does he fight fairly — but he also communicates, a fact which even the ley people will admit (Ref. 20). I only wish that I could interest him in ley halos!

On another occasion, in Cambridge, I was invited over for an hour's discussion with Professor and Mrs. Ruth Daniel. Professor Daniel took me on a tour of Christ College where I saw the dining rooms with white linen tablecloths and gleaming silver set for the students. I could not help being impressed. I thought of the Student Union at my own college in California and I



THE SEATON (CELTIC) AMULET (after Antiquity)

could see that our cafeteria had a long way to go to emulate the touch of class evident at Cambridge. Even in Santa Barbara, only fancy restaurants have tablecloths these days! Our local college students fend for themselves, often at Taco Bell or McDonalds. So much for comparisons in style.

Prior to our meeting, Glyn Daniel had published a little note in *Antiquity* mentioning that I was (then) offering a "Do It Yourself Stonehenge Kit" (Refs 21, 22). I am sure that initially I had piqued his curiosity. I am also sure that after meeting me, he immediately concluded that I was not much of a threat to the archaeological establishment. "Keep in touch," he said, as we parted. And that was that.

Now, in the late summer of 1982, as I write this article, the July issue of *Antiquity* (which just arrived) is before me. Within it is an article entitled "Celtic Amulet from Co. Durham" written by Denis Coggins, the Antiquities Officer of the Bowes Museum in Castleside (Ref. 17). Therein is described and pictured a small amulet, less than an inch high, that was found by Mr. Ted Seaton in 1981 while on a metal-detecting "expedition". The amulet is a pebble, dark gray in color, with an engraved pattern.

The Seaton amulet shows a face, together with some stick-like extremities and some wing-like appendages. There is a star on the lower right side of the emblem area. The object was found on an eroding ground surface on Scargill High Moor. The edges of the amulet are rounded and there is a perforation near the apex although this particular detail is not visible in the photograph. Presumably the amulet was once worn as a kind of pendant.

The head is larger than the stylized body. The eyes are round and prominent; the torso is an engraved line. Two horns are evident curving from the center forehead. The arms and face have feather-like fringes, possibly indicating a winged costume. The engraving is said to be crude although the figure is dignified and imposing. No exact parallel has ever been found before although the individual features seem to show affinities with Celtic religious art.

The horned god is a widely-known concept in prehistory, and with some justification, Denis Coggins' analysis in the *Antiquity* article suggests that this representation may be that of a Shaman's costume. The curious tripod below the figure is interpreted as legs and phallus. The hint is noted of the amulet being similar to paleolithic cave paintings. The star is said (possibly) to indicate the spokes of a wheel although the rim is missing. Since forest sanctuaries would be sacred in Celtic religion, the temptation is to think that this horned, feather-caped figure is the deity who presided over this particular region, now Scargill High Moor.

While it may be trite to say so, this horned god has some of the characteristics of the Devil, or of Satan, or of Beelzebub, or even of the dragon. We wouldn't actually try to involve *Antiquity* in an untoward discussion of religion were it not for the fact that this Seaton amulet is

probably much more than a religious emblem. We think that Ted Seaton has found a "Rosetta Stone" of inestimable value.

#### HOW TO READ THE SEATON AMULET MESSAGE!

To read the Seaton amulet, is to do an exercise in cryptography. One must be able to take apart the message into component elements and then recombine them. With the Seaton amulet, we seem to have a "position" cryptogram. It also seems that a good place to start is with the lower extremities of the engraving.

The "stick figure" indeed has a kind of tripod and if we would consider agreeing with *Antiquity*, we could consider the lower extremities to be legs and associated imagery. However, since we recognize this design (considering only the legs for the moment, as being bowed), we actually have the clue we need. When one sees the parallel between the Seaton amulet and the bowlegged rabbit of Petersborough (and other related archaeological ogival patterns) one is home free!

We also tend to disagree with Denis Coggins when he suggests that the obvious "star" is somehow the spokes of a wheel with the rim missing. We shall return to our own analysis of this star, subsequently. At the moment we will consider the star to be a point of bright light in the skies. In fact, placing the design of the Seaton amulet in the skies is the detail we need to solve the puzzle. Indeed, the image depicted is religious in the sense that Beelzebub, Lucifer, Satan, and the Devil have to do with cosmic events. There are elements of the dragon as well, but the clearest element is the symmetrical horns on the head. We might consider as well that the feathery arms are not shamanistic in character but rather are an indication of flying. All these clues may be necessary to get the image up in the skies where it obviously belongs.

We cannot delay our own analysis further, as much as we would like to do so — thus building up the suspense. Let us look at the "bowlegged" image of the standard halo pattern (Ref. 23) which in Issue No. 49 of *Stonehenge Viewpoint* was run as background for Chinese halo nomenclature dated at 635 AD. Looking at this halo reference image, we are elated to see that it has precisely the same tripod that the Seaton amulet has! We even know the Chinese word for these legs, namely, "Ying" for (dragon) tassels. Further, the vertical line of the tripod is obviously a halo pillar which extends upward toward the central point where the sun should be. In fact, geometrically, we can deduce the solar center point for the Seaton amulet as being level with the end points of the "arms", feathered as they seem to be. On the left, we even see a kind of "eye" which just happens to coincide with the mock sun position at the end of the Chinese "Thi", or supporting bracket. (On the Seaton amulet, the corresponding right eye is missing.) Continuing upward, we see that our "devil" has a prominent long nose which is exactly what we would expect from the extension of the solar pillar above the central sun point.

As shown both in the amulet and in the halo diagram, the straight nose line terminates at the horns which in Chinese nomenclature is **Kuan** meaning bonnets. I suppose that any headdress, whether horned or ornamented, would count as a kind of bonnet. Certainly, Chinese devils are horned. I remember one such example. A Chinese student of my acquaintance used to keep one of these little devil images on his study desk. The item was of bronze, perhaps 8 inches high. The little statue was carrying a spear and as the "god of scholars" was supposed to use the spear to awaken the student should he become sleepy at his learning task.

Nor does the Chinese bonnet clue end here. Long before I had learned that certain arcs in Chinese halo nomenclature were termed bonnets, I had noted that the outline of one of Greenler's computer derived drawings (see accompanying diagram) was decidedly Chinese in character. One can easily imagine that the Parry arc at 30 degrees solar elevation shows the silhouette of a coolie hat with a "Charlie Chan" mustache, tassel-like, below. Of course, the mustache forms the same arched outline that we see again and again, as the legs of the Seaton amulet tripod, as the arch of the Brittany megalithic tomb carvings, as the arch of the throne room chair at Knossos in Crete, and as the lower extremities of Barry Fell's bowlegged rabbit carved near Toronto.

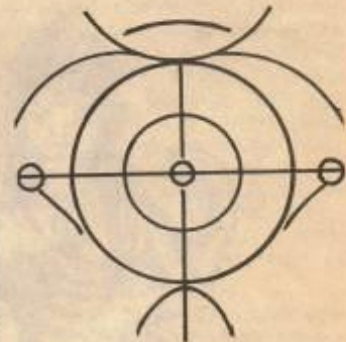
The Seaton amulet can, incidentally, clear up another mystery. We refer to the vertical stripe that occurs in one of Barry Fell's so-called Yule men, which we have identified as being the halo "star" observed at the anti-solar point. It may be seen that this stripe, midway between the rabbit-like ears of the Petersburg carving, can be made to fit precisely over the Seaton amulet's nose. Thus, what seems to be a bit of extraneous information carved on the rocks near Toronto can be confirmed as being an authentic halo form that occurs as well on the Seaton amulet and on the Chinese halo nomenclature diagram. Whether we are dealing with Yule men in the anti-solar direction, or with direct halos in the solar direction, may be debatable. This quandary can be cleared up by comparison with other examples.

Other clues to be considered show that the Seaton amulet is probably a solar-direction halo. First, consider the "V" configuration of the cheeks of the entity being depicted. A protractor placed over the design indicates an angle of 22 degrees. Whenever we run across this particular angle, we suspect that ice crystal refraction is somehow involved inasmuch as the radius of the primary halo circle is 22 degrees. We have noted this same angle on a number of other designs of mythology and archaeology related to halos.

YULE MAN  
VERTICAL STRIPE



THE BOWLEGGED RABBIT



CHINESE HALO TRIPOD  
(also see "Ying" tassels on page 3)



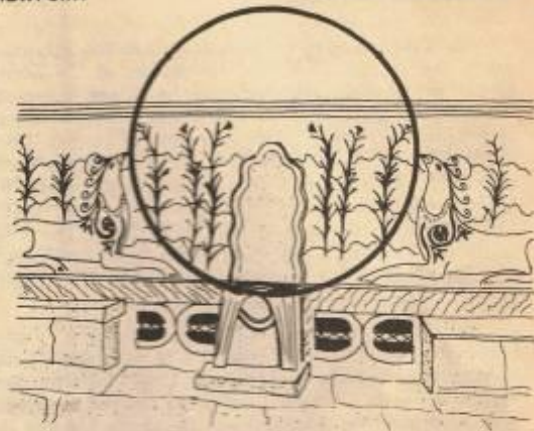
CHINESE HALO MOTIF

Record Number 711 >>> Image 5: Stonehenge Viewpoint, Issue 50. Extract.

The set of five twisting "feathers" on the appendages of the Seaton amulet are also most intriguing. The wings are symmetrical so that they are exact mirror images of each other. Mirror image symmetry is typical for halos — but why exactly five twists? Artistic license? The answer is unknown and based on Greenler's analysis of possible halos might appear to be unknowable. Yet there is a richness in mythological (or archaeological) patterns that may help us to know the unknowable.

Let us look again at the throne of the Knossos sanctuary in Crete. Here we have two griffins located symmetrically beside a "bowlegged" throne. We can actually draw a circle that intersects several points in a way that seems to confirm that we are looking at a "hidden halo". Then surprisingly we may note that there are five curly "feathers" on the necks of the griffins. Why five? Of course we don't know, but perhaps we are seeing the equivalent five twists for Crete's latitude that we saw on the Seaton amulet for a latitude in England.

Looking now in another direction, it seems that we are unable to predict when we will find a new halo pattern that may be helpful. Our next example is the pattern drawn on a Japanese fan acquired at a curio shop at the Ala Moana shopping center in Honolulu, Hawaii. The name of this pattern is "Kabuki" — the meaning of which I have no idea. But if one compares it with other halo examples, we can see clearly that we have some interesting similarities. Clearly winged appendages go with the territory!



KNOSSOS THRONE CHAIR  
SHOWING BOW-SHAPED LEGS  
(1300-1400 BC) (Ref. 2)



TARA

VEE-SHAPED MOTIFS



"KABUKI" JAPANESE FAN FROM  
ALA MOANA SHOPPING CENTER IN HONOLULU

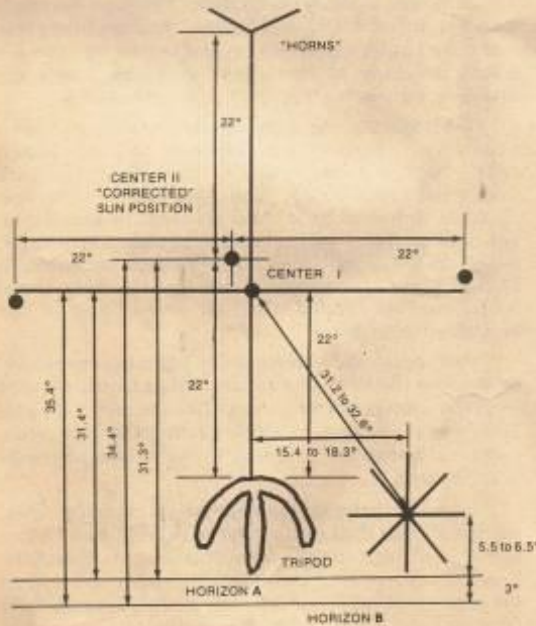
**THE SEATON AMULET'S EIGHT POINTED STAR**

None of the other hidden halo examples that we have compared with the Seaton amulet so far have an eight pointed star located on the lower right. And by our rule of symmetry, we would expect such a star to also appear on the left side of the amulet as well. Possibly, there was once a corresponding left-hand "point of light" that was worn off or chipped off. However, until the amulet area can be closely examined, we are bound to accept the evidence as it appears. Non-symmetrical "stars" are definitely not readily acceptable as part of an ordinary halo.

Perhaps then, we are looking at some bright star and the Seaton halo is really a lunar halo. Certainly such an answer is possible and then we might look for candidate stars that would be appropriate, say Sirius or Vega. But instead, we will take a different approach in our cryptographic analysis.

If the star that appears on the Seaton amulet had six points, we might identify it with the anti-solar point halo star. If the Seaton amulet star had five points, we could interpret it as being related to the Egyptian hieroglyph star which I understand means "deity". In

**PRELIMINARY SOLUTION TO SEATON AMULET "NOVA"  
EVENT AS VIEWED FROM LATITUDE 54° 28.0'  
(At a point near Scargill High Moor)**



Note that the location of the sun involves uncertainty, so that ranges of values are given. Corresponding uncertainty exists within a narrow range as to where the hypothetical supernova might have been observed. Two solutions are indicated.

**SOME POSSIBLE TIMES OF DAY FOR THE SEATON AMULET HALO—SUPERNOVA OBSERVATION**

IF OBSERVATION WAS MADE IN:	IT IS APPLICABLE:	
	AM	PM
MARCH	9:00 to 12:00	12:00 to 3:00
APRIL	7:30 to 9:30	2:30 to 4:30
MAY	6:00 to 8:00	4:00 to 6:00
JUNE	5:00 to 7:00	5:00 to 7:00

Corresponding times of day can also be estimated for July, August and September. Values given are approximations only.

fact, "deity" may well be the meaning of the eight point star. However, I would like to propose, for the reader's consideration, another hypothesis.

Perhaps the Seaton amulet star is really a supernova! We have seen (Ref. 24) how a number of archaeologists and astronomers have scoured the southwestern states for evidence of one such nova, allegedly viewed along with a partial moon a few hundred years ago. The questions that the Seaton amulet may be able to answer are several. First, does the amulet give any directional clue to help us locate the Seaton supernova? Secondly, during what era might this "day star" have been observed? And thirdly, given possible answers, is there any other record of a supernova having been seen during the same time period for the same celestial position?

Let's take the second question first. If the Seaton amulet is indeed Celtic and if the Celtic peoples arrived in Britain after 900 BC then we have about a 1500 year spread for the possible date of the amulet. The more recent time limit would be about 600 AD at which time Christianity had become established in northern England. Assuming that the amulet was carved at the latitude of County Durham, we can estimate, in general terms, the time of year that such a recorded halo and the presumed supernova might have been observed. Admittedly the amulet was readily portable so that it might have been transported to Britain and thus represent an even earlier observation elsewhere.

From the geometry of the halo and the latitude of Scargill High Moor (or close points thereto), the sun would have been at an elevation of 32 to 33 degrees above a level horizon. The nova would have been 7 degrees above the horizon, which translates into a distance from the ecliptic circle of 27 degrees south, plus or minus 2 degrees. Graphically analysed, the appearance being recorded could have been observed at a date from March to early October, but not in the winter months from late October through February. Thus the nova would have had to appear in a very narrow strip of sky. One need only look in this area for a supernova remnant that exploded between 900 BC and 600 AD. If none is found, we can discard our hypothesis. But if one is found with the proper expansion rate, we could probably tie down the nova particulars of the Seaton amulet even more closely.

Record Number 711 >>> Image 7: Stonehenge Viewpoint, Issue 50. Extract.



A SEGMENT OF THE NARAM-SIN STELE (2250 BC)

Logically, if the Seaton amulet does record a nova event, we might ask if a "day star" might not have been recorded elsewhere? China, Greece, Egypt, or the Near East are possibilities. Certainly, we would expect anything startling enough to have been recorded by alleged Celtic "savages" to be similarly revered by inhabitants of the **civilized** world — would we not? Well; one looks in vain for such records — almost!

The only candidate that I have found so far is the famous carving on the great stele of Naram-Sin in Mesopotamia, dated about 2250 BC. But the date is all wrong for our Celtic comparison and the day star with sixteen points on the stele appears on the left side of the sun. The mountain shown does appear to have the "ogival" pattern of a halo however. The stele has its edges broken off so that we cannot be entirely sure that there was not a symmetrical star on the right, in which case, we might have a simple mock sun motif. Hunting for a hidden nova in the archaeological annals is clearly not as easy as hunting for (and finding) hidden halos.



BRICK BROTHER OF CHIGNAL SMEALY

## BRICK BROTHER IS WATCHING YOU!

As reported in *Essex Landscape Mysteries* (Ref. 25) "somebody or something" is keeping watch on the quiet village of Chignal Smealy, not far from Chelmsford in England. As shown in the accompanying illustration, some 16th century brownish brickwork demarks a curious form against the red brick of the Tudor church. The hastily drawn sketch shows an angular, spread-eagled figure, wearing what appears to be a horned hat. Other patterns on the church show diamonds and chevron shapes. But of course, having the advantage of knowing about "Yule men" and bowlegged entities, we are able to interpret this main diagram.

Clearly, we have another instance of a halo-star at the anti-solar point or even a direct solar halo reproduced as an art form. We can add the "Brick Brother" of Chignal Smealy to the examples we have over a great spectrum:

4000 BC	Brittany, France, "wishbone".
1500 BC	Throne of Knossos, Crete
1700 BC	Carvings of Petersburg, Canada.
635 AD	Dragon "tassels" of China.
Date unknown	Yule woman of Cueva de los Letteras.
900 BC to 600 AD	Seaton amulet of County Durham.
16th century	Brick Brother of Chignal Smealy.

Obviously the span of this pattern (no pun intended) stretches across thousands of years. And doubtless this search for bowlegged entities is just beginning. We are greatly indebted to the editor of *Essex Landscape Mysteries* for sharing this new "Yule man" with us.

Nor is that the end of the mystery. As is well known most parish churches are dedicated to some patron saint. And of course, many of these saints go back (root wise) much earlier than Christianity. We find churches dedicated to St. Michael that are situated on sun lines (or halo lines) related to famous solar-dragon battles of antiquity. We find churches dedicated to St. Catherine on ceremonial sites where fiery (halo) hoops were once rolled, the halo wheel being in fact St. Catherine's symbol.

Now the latest discovery of Brick Brother can readily be put into the form of a riddle: What Christian saint would be appropriate for a church like the one at Chignal Smealy that displays a "Brick Brother" that in some cultures is known as "Yule man"? The answer obviously is St. Nicholas!

In fact, it is the St. Nicholas parish church of Chignal Smealy that does display the brick Yule man. More than that, if the association of all these symbols with the Christmas season (or winter solstice) is permissible, then the contracted word "Xmas" may carry an appropriate "hidden halo". The "X" viewed in the northern sky at Christmas would simply be commemorated. One probably should not conclude that the Yule man halo "star" was observed only at the winter solstice. Rather, the fact is commemorated that when looking north at

the winter solstice, the anti-solar halo was at its lowest elevation in the sky for the year! Certainly, St. Nicholas (read Santa Claus) has ever since been associated with the north direction — the north pole, as it were.

Without infringing on the possible astronomical (or astrological) meaning of the Christmas Bethlehem star, certainly the Yule (halo) star would have long been associated with what was to become the Christmas season. Moreover, as viewed toward the north at midday, the Yule halo star would have provided the appearance of an Xmas (Christmas) tree with a bright star on top!

Intuitively, one can leap to other seasonal conclusions as well. One might wonder if the "March hare" was really the bowlegged figure observed in the skies during the spring of the year? Then, in April, this apparition might have suggested the "Easter bunny" — possibly astride the ogival "Easter egg"!



BOWLEGGED EASTER BUNNY WITH OGIVAL EGG



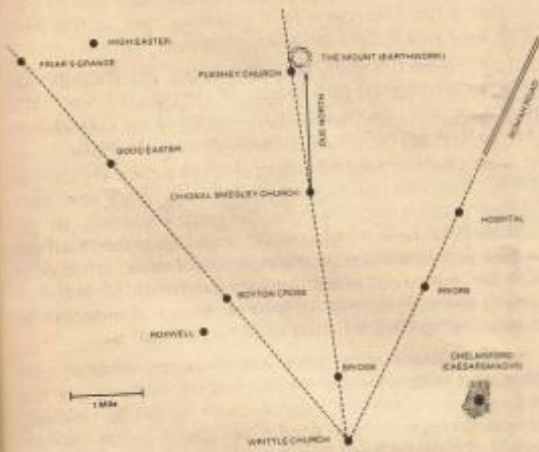
DESIGN OF X-MAS TREE WITH STAR ON TOP

SCARGILL HIGH MOOR AND CHIGNAL SMEALY

As has been already noted, the official explanation for the Seaton amulet is that it represents the Celtic forest god of Scargill High Moor. On the contrary, our "hidden halo" analysis indicates that some early Celtic archaeometeorologist lost this amulet while travelling through the woods (if the area was then wooded). He was doubtless travelling from his home in the valley up to an observational peak or back home again. The reason we know this is that Scargill High Moor is on the north slope of a range of hills, an area inappropriate for making the recorded observation. The amulet shows a view looking southward toward the sun between March and late September with a clear horizon, thus evidently from a high point, not from Scargill High Moor itself.

Moreover, this careful carving was done, likely, after the observation, either from a sketch made at the time or from memory. If the carving was not done at the observation site, it was likely completed back at the artist-observer's workshop. When this precious Seaton amulet was found on the forest floor in 1981, it had been there for many centuries. Obviously, the pendant was lost after the halo appearance had been recorded, not sooner than the following winter — when somehow the supporting cord snapped, say in the cold. If the pendant was lost in the snow (if there was any snow), then it was impossible for its owner to find, especially if lost at night. Had the item been lost on a regular pathway to the observatory in the summer time, it might have been found easily.

By contrast, the Brick Brother of Chignal Smealy, appropriate for a church dedicated to St. Nicholas, was constructed at the site. Careful study of the area map indicates that there exists a possible north bearing ley line, leading not from the present church, but from a point a few hundred feet west of the present structure. As has been noted before (Ref. 26), north bearing leys or north bearing roads are a rarity in Britain. Curiously, however, the Scarhill High Moor is at one of the latitudes tied into north-bearing halo sighting lines. When we cast our ley hunting imagination northward from the moor itself we find nothing. But from nearby peaks, we begin to find interesting alignments in a north-south direction. There is still something strange about the Yule man configuration. Not only are similarities apparent to the saintly "Nick", but the emblem carries overtones of "Old Nick", a nickname for the Devil. Beneath the veneer of sainthood lurks a Lucifer — hopefully now fully repentent!



A MAP OF THE CHIGNAL SMEALY REGION



A MAP OF THE SCARGILL HIGH MOOR AREA

ACKNOWLEDGEMENTS

Special thanks are hereby given to Kenneth O. Emery of Falmouth, Massachusetts. Had he not sent us drawings showing Chinese halo nomenclature, we might not have noticed the similarity of the dragon "tassels" to the "tripod" of the Seaton amulet. We are also indebted to the editor of the Essex Landscape Mysteries for calling our attention to "Brick Brother", obviously a relatively modern rendition of a Yule man, which in turn was drawn to our attention by Barry Fell. Many facets are involved in archaeometeorology so that many mysteries remain to be solved. Vail's theory of a canopy of ice crystals can readily be combined with Greenler's computer derived halo patterns to explain many of the motifs of archaeology. Looking for "hidden halos" is really quite easy — and lots of fun!

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POSTSCRIPT

On the 14th of September, 1982, a letter was written to Dr. Edwin C. Krupp, Director of the Griffith Observatory in Los Angeles. "I have found an archaeological item that shows a bright "star" in what may be a daytime context. I am looking for a supernovae that "happened sometime between about 900 BC and 600 AD. It would have been in view sometime between about March 1st and October 10th and would have been seen in the zodiacal position appropriate for the sun during these months. The declination with respect to the ecliptic would have been 27 degrees south plus or minus 2 degrees."

Upon returning from his trip to Egypt, Dr. Krupp provided information from *The Historical Supernovae* by David H. Clark and F. Richard Stephenson (Pergamon Press, 1977). Two candidates are apparent:

Event	Date	Declination	Right Ascension
Nova	134 BC	-25	16 hr 00 min
Supernova	386 AD	-25	18 hr 30 min

The nova of 134 BC was observed in June-July with an unspecified duration. The supernova of 386 AD was observed in April-May, with a total 3 month's duration. The declinations and right ascensions are based on 1950 locations. Both candidates are based on Chinese record contemporary with the events. For the given 386 AD supernova, three stars now visible, G11.2-0.3, G11.4-0.1 and G12.0-0.1 are the only remnants considered a candidates, and Clark and Stephenson favor the first.

Continued on page 2

Record Number 711 >>> Image 10: Stonehenge Viewpoint, Issue 50. Extract.

Record Name: The Neasham Elk  
SWAAG ID Number: 712  
Recorded Date: 2013-04-05 16:21:52  
Recorded by: Tim Laurie  
Category: Fauna  
Record Type: Archaeology  
Record Date: 2013-04-04  
Location: Neasham Brick Ponds near Darlington  
Civil Parish: Not known  
British National Grid: NZ 334 113  
Altitude: 60m

Geology: Ancient clay and peat filled depression or pond in surface of glacial clay.

Description: In June 1939 a fall in the side of a brick pit near the top of a small hill on the northern bank of the River Tees at Neasham near Darlington revealed the skull and skeletal remains of an elk or moose (*Alces alces*). The publication of the circumstances of the find (Blackburn, K.B. 1952) together with the radio-carbon date and of the palaeo botanical evidence for the contemporary Late Glacial and Early Post Glacial Vegetation from the deposits within which the elk bones were found provides an insight to the character of the vegetation of the Tees Lowlands and confirms the presence of many species of arctic alpine plants which survive today in Upper Teesdale.

The elk remains from the Neasham Brick Pit were on display at the Darlington Museum until closure of the museum and are now in storage at the Darlington Railway Museum. A few years ago I had the privilege of meeting the Late Roger Jacobi from his London train and driving him to the North Road Railway Museum to collect the very bone from the Neasham Elk that had previously been C14 dated in order to redate this bone by AMS Dating. Roger Jacobi, who sadly died very soon after having delivered, together with Tom Lord, his final presentation headed 'Earliest Humans in the Yorkshire Dales' to the annual YDNP Conference at Grassington on 31st October 2009. Roger is remembered as Foremost Mentor, constant source of sound advice and above all as a good friend to all who worked on evidence for Early Post Glacial and Mesolithic Occupation in Northern England. Roger was a founder member of the Leverhulme-funded Ancient Human Occupation of Britain Project.

This record is the first Part of a two part Record of the Neasham Elk. The second Part, see SWAAG Record No (to follow) will be concerned with Kathleen Blackburn's very fine article which provides an account of the details of the evidence for the contemporary Late Glacial and Early Post Glacial Vegetation of the Tees Lowlands from the deposits within which the elk bones were found.

Dimensions: See figures and photographs

Additional Notes: See New Phytologist 51:3, 364 extracts as follows:

THE DATING OF A DEPOSIT CONTAINING AN  
ELK SKELETON FOUND AT NEASHAM NEAR  
DARLINGTON, COUNTY DURHAM  
BY KATHLEEN B. BLACKBURN

Department of Botany, King's College, Newcastle upon Tyne

(Received 30 December 1951)

(With Plate 8 and 2 figures in the text)

## INTRODUCTION

In June 1939 a fall in a brick-pit, situated at about 170 ft. o.D., near the top of a small hill above the River Tees at Neasham, exposed the skeleton of an elk or moose (*Alces alces* L. or *A. machlis* (Ogilby) Gray). This was reported in the public press and mentioned in *The Vasculum*, vol. 25, no. 3, p. 96 and no. 4, p. 137. The deposit containing the elk was described, with a photograph, by Dr C. T. Trechmann in the *Proceedings of the Yorkshire Geological Society*, vol. 24, part 11, published in November 1939. The investigations recorded here were also begun, at about this time, with a view to dating the skeleton by the method of pollen analysis; meanwhile macroscopic remains were also noted towards a reconstruction of the changing local flora. Some puzzling features caused publication to be held up in hope that further evidence would come to light. Present interest in late-Glacial deposits, following the results of Jessen and Mitchell in Ireland, is so great that the account of this deposit, which will be shown to be of that period, ought not to be delayed any longer.

## DESCRIPTION OF THE SITE

The skeleton was found embedded in peat in what must once have formed an irregular shaped hollow in the surface of the terra-cotta-coloured boulder clay. The dimensions of this hollow could not be exactly determined, as a large part of the clay in which it Dating of a deposit containing an elk skeleton 365 occurred had been removed for the making of bricks, but what was exposed suggested that a considerable area had been a pond about 11 m. deep, partially separated from a quite small hollow, perhaps 10 m. across, which was originally at least 3 m. deep. It was into this small hole that the elk, perhaps grazing on water-weeds, evidently fell and was drowned. Pl. 8, fig. i, is a photograph, including the site of this deeper pool, and

Text-fig. I is a diagram, drawn with the aid of this and another photograph, which shows the nature of the various deposits present.

## DESCRIPTION OF THE DEPOSITS

The circumstance that a very large area of exposed face was available at different times made the investigation of the site relatively easy. It also made it clear that the stratigraphical features were consistent over the whole of the pool, only differing somewhat in detail in the deepest hollow where the elk bones lay. The main feature of the exposures is the peaty band, 15-20 cm. deep, which runs horizontally through the middle but thins out and disappears to the north where the clay is at present being worked. This

band is a Hypnum peat in most parts, but at the southern end it widens out and consists of three different layers of which the uppermost one is the Hypnum peat. The junction between G and the boulder clay could not be reached. The first thing which strikes the attention is the number of plants on the list which have, at present, a more or less arctic-alpine distribution. These are chiefly to be found in the Hypnum peat layer and just above it. The large number of specimens in the peat is, in part, due to the more favourable type of deposit. Of these

arctic-alpine plants, the two with the most northerly type of distribution are *Betula nana* and *Salix herbacea*; others are *Arabis petrea*, *Arctostaphylos uva-ursi*, *Armeria maritima*, *Dryas octopetala*, *Selaginella selaginoides*, *Thalictrum alpinum* and *Juniperus*. Except for *Betula nana* and *Arabis petrea* these plants grow in Upper Teesdale to-day, but they do not, at present, appear in the lowlands near Neasham. This difference of altitude of up to 1800 ft. between their present habitats and those of the fossil plants suggests

a difference of climate. Extremely cold conditions could be argued for the plants growing at the base of the upper clay (C3), because the *Salix herbacea* leaves, which considerably higher up in the clay layers reach 1 cm. in length, here are only 2-5 mm. long. The occurrence of frequent remains of *Betula pubescens* from the black clay up to the

Hypnum peat suggests that a period of relative warmth is represented in these layers. It will be noticed that all the species in Table 3 are to be found in the lists of and *Salix herbacea*; others are *Arabis petrea*, *Arctostaphylos uva-ursi*, *Armeria maritima*, *Dryas octopetala*, *Selaginella selaginoides*, *Thalictrum alpinum* and *Juniperus*. Except for

*Betula nana* and *Arabis petrea* these plants grow in Upper Teesdale to-day, but they do not, at present, appear in the lowlands near Neasham. This difference of altitude of up to 1800 ft. between their present habitats and those of the fossil plants suggests a difference of climate. Extremely cold conditions could be argued for the plants growing at the base of the upper clay (C3), because the *Salix herbacea* leaves, which considerably higher up in the clay layers reach 1 cm. in length, here are only 2-5 mm. long.

The occurrence of frequent remains of *Betula pubescens* from the black clay up to the Hypnum peat suggests that a period of relative warmth is represented in these layers. For the full detailed Report, see New Phytologist 1952. This Issue together with all previous issues are available on the WEB.

Last Update: 2014-01-17



Record Number 712 >>> Image 1: The Neasham Brick Ponds, today.



Record Number 712 >>> Image 2: Birch woodland at the Brick ponds, today. The Late Glacial landscape was arctic tundra with vegetation which survives today in Upper Teesdale. Juniper, least willow (*Salix hebecea*), dwarf birch (*Betula nana*), mountain avens (*Dryas octopetala*), hoary rock rose (*Helianthemum*

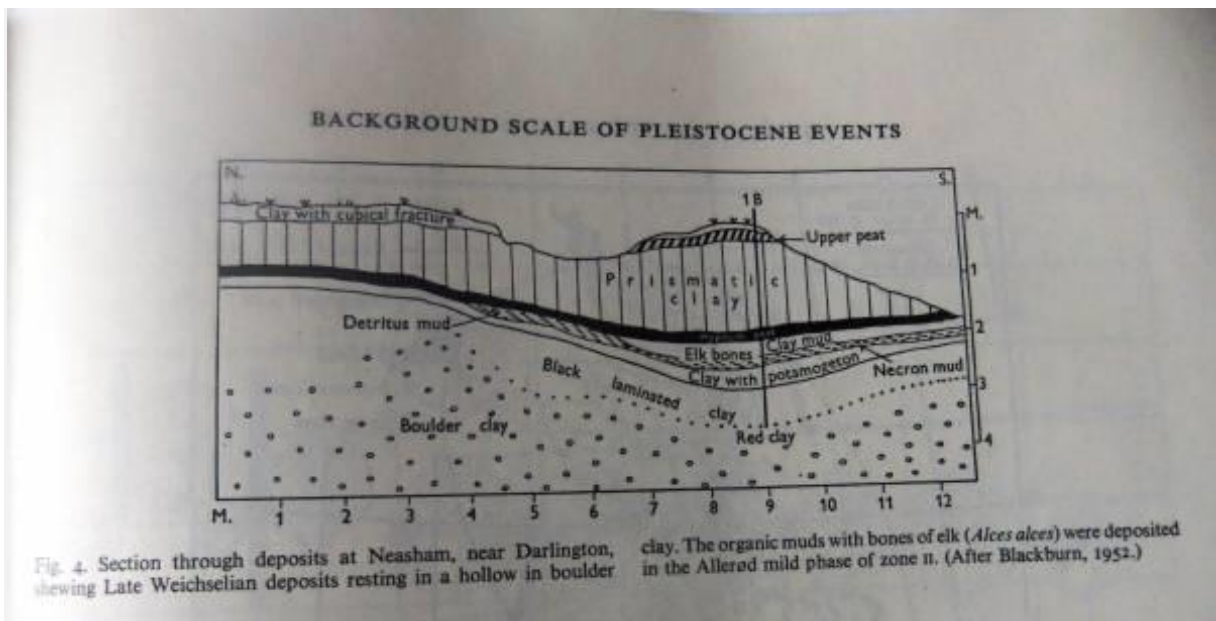
canum), alpine meadow rue (*Thalictrum alpinum*) was gradually replaced with increasing warmth by downy birch woodland.



Record Number 712 >>> Image 3: Birch woodland, detail



Record Number 712 >>> Image 4: Birch woodland, detail



Record Number 712 >>> Image 5: Neasham Brick Ponds. Section through the deposits with the Elk Bones after Blackburn 1952.

**THE DATING OF A DEPOSIT CONTAINING AN  
ELK SKELETON FOUND AT NEASHAM NEAR  
DARLINGTON, COUNTY DURHAM**

By KATHLEEN B. BLACKBURN

*Department of Botany, King's College, Newcastle upon Tyne*

(Received 30 December 1951)

(With Plate 8 and 2 figures in the text)

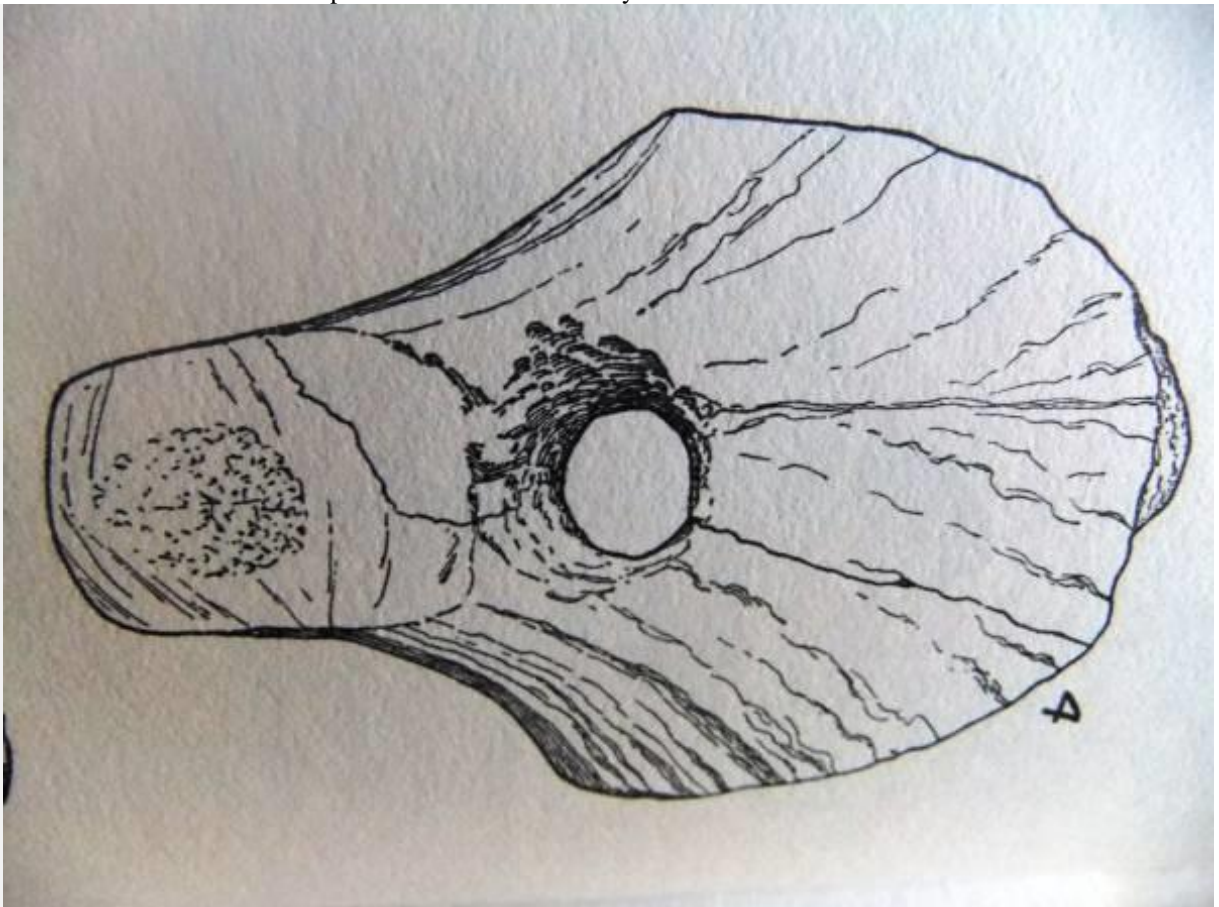
INTRODUCTION

In June 1939 a fall in a brick-pit, situated at about 170 ft. o.d., near the top of a small hill above the River Tees at Neasham, exposed the skeleton of an elk or moose (*Alces alces* L. or *A. machlis* (Ogilby) Gray). This was reported in the public press and mentioned in *The Vasculum*, vol. 25, no. 3, p. 96 and no. 4, p. 137. The deposit containing the elk was described, with a photograph, by Dr C. T. Trechmann in the *Proceedings of the Yorkshire Geological Society*, vol. 24, part II, published in November 1939. The investigations recorded here were also begun, at about this time, with a view to dating the skeleton by the method of pollen analysis; meanwhile macroscopic remains were also noted towards a reconstruction of the changing local flora. Some puzzling features caused publication to be held up in hope that further evidence would come to light. Present interest in late-Glacial deposits, following the results of Jessen and Mitchell in Ireland, is so great that the account of this deposit, which will be shown to be of that period, ought not to be delayed any longer.

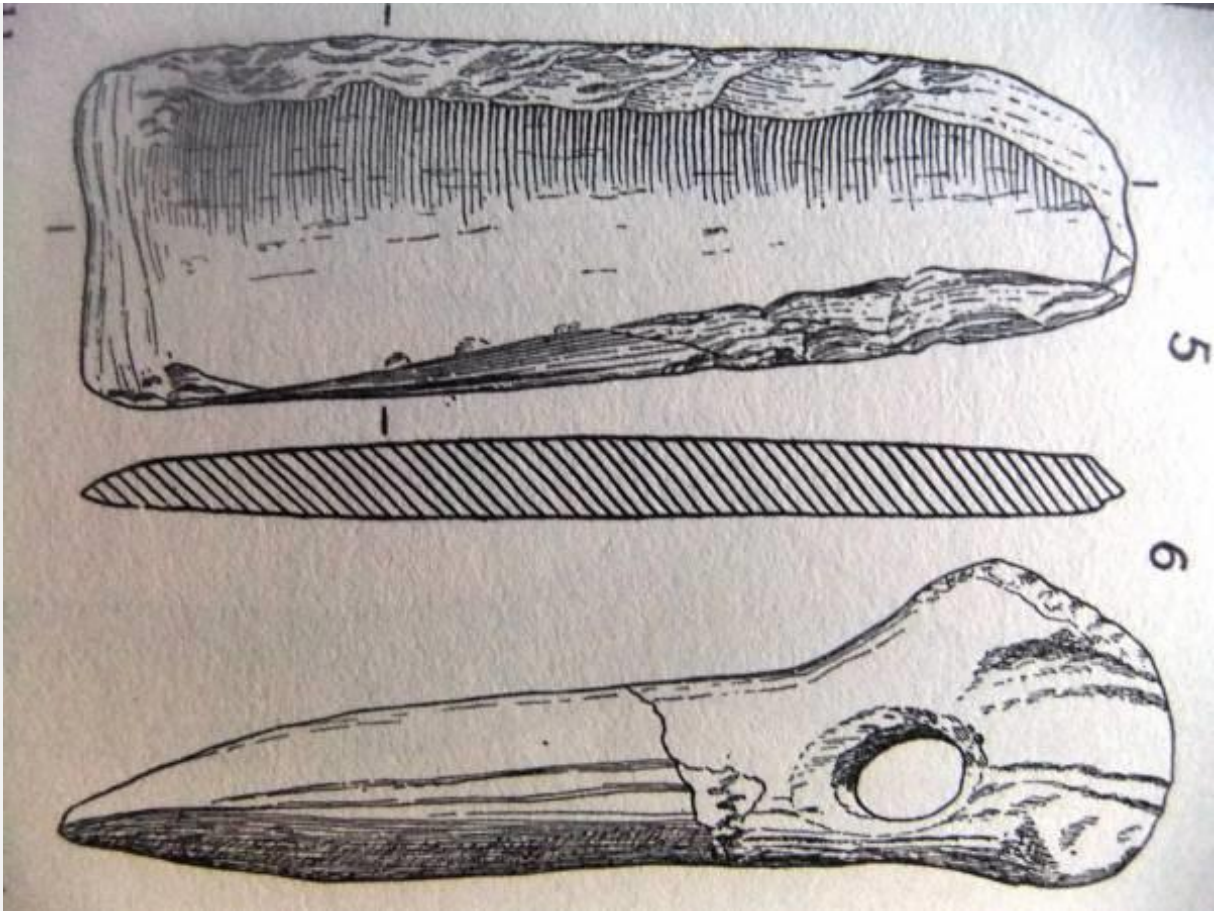
Record Number 712 >>> Image 6: Extract from the article by Kathleen Blackburn from *New Phytology*, 1952 under the head: "The dating of a deposit containing an elk skeleton found at Neasham near Darlington."



Record Number 712 >>> Image 7: Reconstruction drawing by Alan Sorrell from London Illustrated News of activities which include the butchering and processing of elk carcasses, at the Early Mesolithic lakeside settlement at Star Carr based upon the excavations there by J.G.D. Clark.



Record Number 712 >>> Image 8: Mattock of Elk Antler, Star Carr.



Record Number 712 >>> Image 9: Other tools of elk antler, Star Carr

Record Name: A fine day in April. The Goats Road from Holgate to Hurst. The way home.

SWAAG ID Number: 713

Recorded Date: 2013-04-07 16:49:06

Recorded by: Tim Laurie

Category: Geographical Record

Record Type: General HER

Site Access: Public Footpath

Record Date: 2013-04-04

Location: The Goats Road from Hurst to Holgate. A fine day in April>

Civil Parish: Marrick

British National Grid: NZ 064 035

Altitude: 315m

Description: The Goats Road from Holgate used to be my way from Barningham via Holgate to the Green Dragon at Hurst -in summer!

Now the Green Dragon has gone and Global Warming Looms.

Last Update: 2013-04-07



Record Number 713 >>> Image 1: The Goats Road. Holgate How in distance



Record Number 713 >>> Image 2: The Goats Road. View towards Hurst from Schoolmaster Pasture.



Record Number 713 >>> Image 3: The climb up from Holgate.

Record Name: Low Wanless Springs. Burnt mound. Second record. See also previous SWAAG Record No 56

SWAAG ID Number: 714

Recorded Date: 2013-04-07 17:32:56

Recorded by: Tim Laurie

Category: Burnt Mound

Record Type: Archaeology

Site Access: Private

Record Date: 2013-04-06

Location: Low Wanlass Springs

Civil Parish: West Witton

British National Grid: #SE 06722 89053

Altitude: 133m

Geology: Till over Hardraw Scar Limestone. Spring rises and streams

Description: Very large, 16m\*8m\*1.2m high, compact and undisturbed turf covered burnt mound on east bank of stream. The burnt stone core is visible where eroded by stream. A large oak tree grows on the mound.

Dimensions: 16m\*8m\*1.2m high

Additional Notes: This burnt mound is one of very few surviving mounds at valley floor level, being located some 400m from the River Ure, and just above the river flood level. 95% of all the 100 burnt mounds located in Wenselydale are at locations above 300m on the upper dale side.

This is the second visit to this burnt mound which was recorded before digital camera images were available.

Last Update: 2013-04-07



Record Number 714 >>> Image 1: The very large burnt mound at Low Wanless Springs supports a mature oak tree.



Record Number 714 >>> Image 2: Low Wanless pastures.



Record Number 714 >>> Image 3: The stream and burn mound location



Record Number 714 >>> Image 4: Burnt mound



Record Number 714 >>> Image 5: Burnt mound



Record Number 714 >>> Image 6: Burnt mound



Record Number 714 >>> Image 7: Fire cracked stone visible from the mound



Record Number 714 >>> Image 8: Fire cracked stone core of the mound is visible.



Record Number 714 >>> Image 9: Fire cracked stone from the mound

Record Name: Surface finds of roman, medieval and post medieval pottery sherds from the multi period settlement complex below Clapgate Scar, see also SWAAG Record No

SWAAG ID Number: 715

Recorded Date: 2013-04-08 13:04:17

Recorded by: Tim Laurie

Category: Settlement

Record Type: Archaeology

Site Access: Private

Record Date: 2005-01-01

Location: Marske. Pastures below Clapgate Plantation

Civil Parish: Marske

British National Grid:

Geology: Drift below the Underset Limestone.

Description: Finds of Samian, Cranbeck and other distinctive pottery sherds of Roman Date together with sherds of Medieval and Post Medieval date from molehills in the vicinity of the extensive settlement complex below Clapgate Plantation. The settlement includes both round house platforms and rectangular buildings and the finds of pottery sherds, animal bone and occasional metalwork confirms several episodic occupations at very different periods. An embanked field system associated with this settlement complex may also have similar early origins.

Dimensions: See photos

Additional Notes: See also SWAAG Record No for images of the settlement.

Last Update: 2013-04-09



Record Number 715 >>> Image 1: Multi period settlement below Clapgate Springs Plantation. Google Historical Imagery.



Record Number 715 >>> Image 2: Roman sherds including Samian,



MARSKÉ C.P.  
NZ 113 022 - PASTURE BELOW  
CLAPGATE SPRINGS PLANTATION

Record Number 715 >>> Image 3: Sherds of Samian. Very abraded small rim and body sherds.



MARSKÉ C.P.  
NZ 113 022 - PASTURE BELOW  
CLAPGATE SPRINGS PLANTATION

Record Number 715 >>> Image 4: Samian as last but reverse side.



Record Number 715 >>> Image 5: Two sherds of roman pottery. one body sherd and one rim.



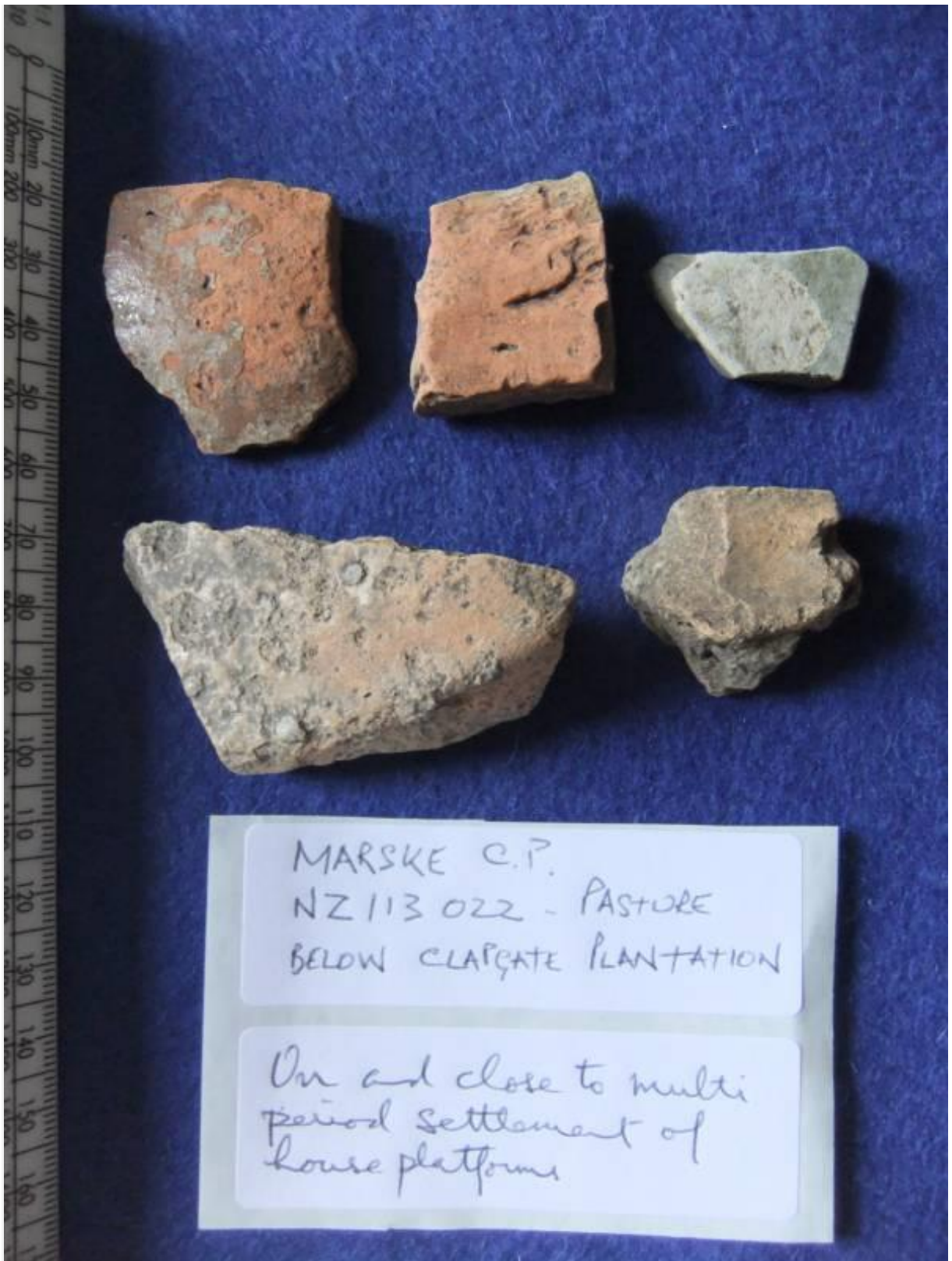
Record Number 715 >>> Image 6: As last but reverse.



Record Number 715 >>> Image 7: Three sherds of roman pottery.



Record Number 715 >>> Image 8: As last but reverse.



Record Number 715 >>> Image 9: Medieval and possible roman sherds.



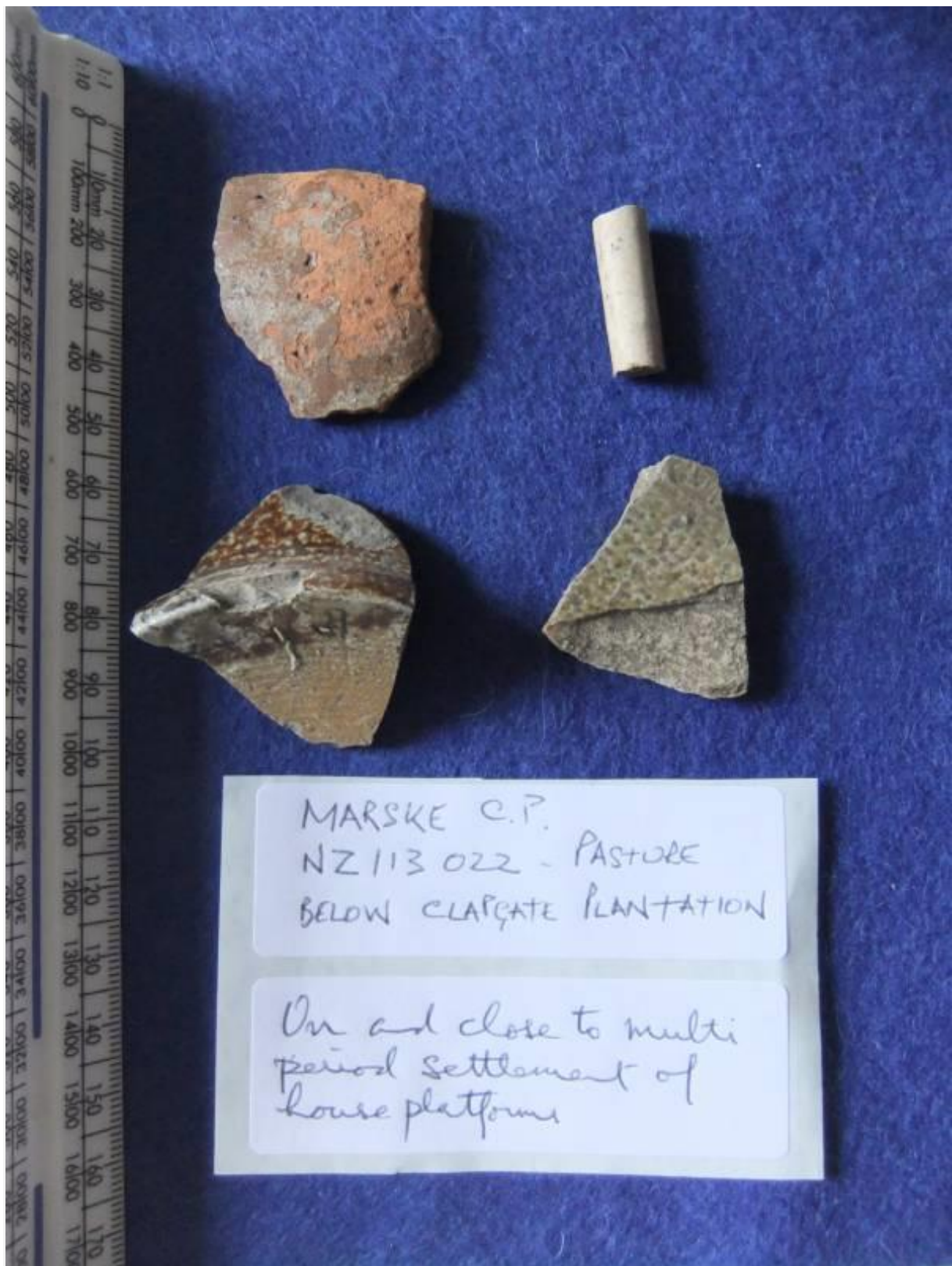
Record Number 715 >>> Image 10: As last but reverse



Record Number 715 >>> Image 11: Sherds of post medieval pottery



Record Number 715 >>> Image 12: As last but reverse.



MARSKE C.P.  
NZ 113 022 - PASTURE  
BELOW CLAPGATE PLANTATION

On and close to multi  
period settlement of  
house platforms

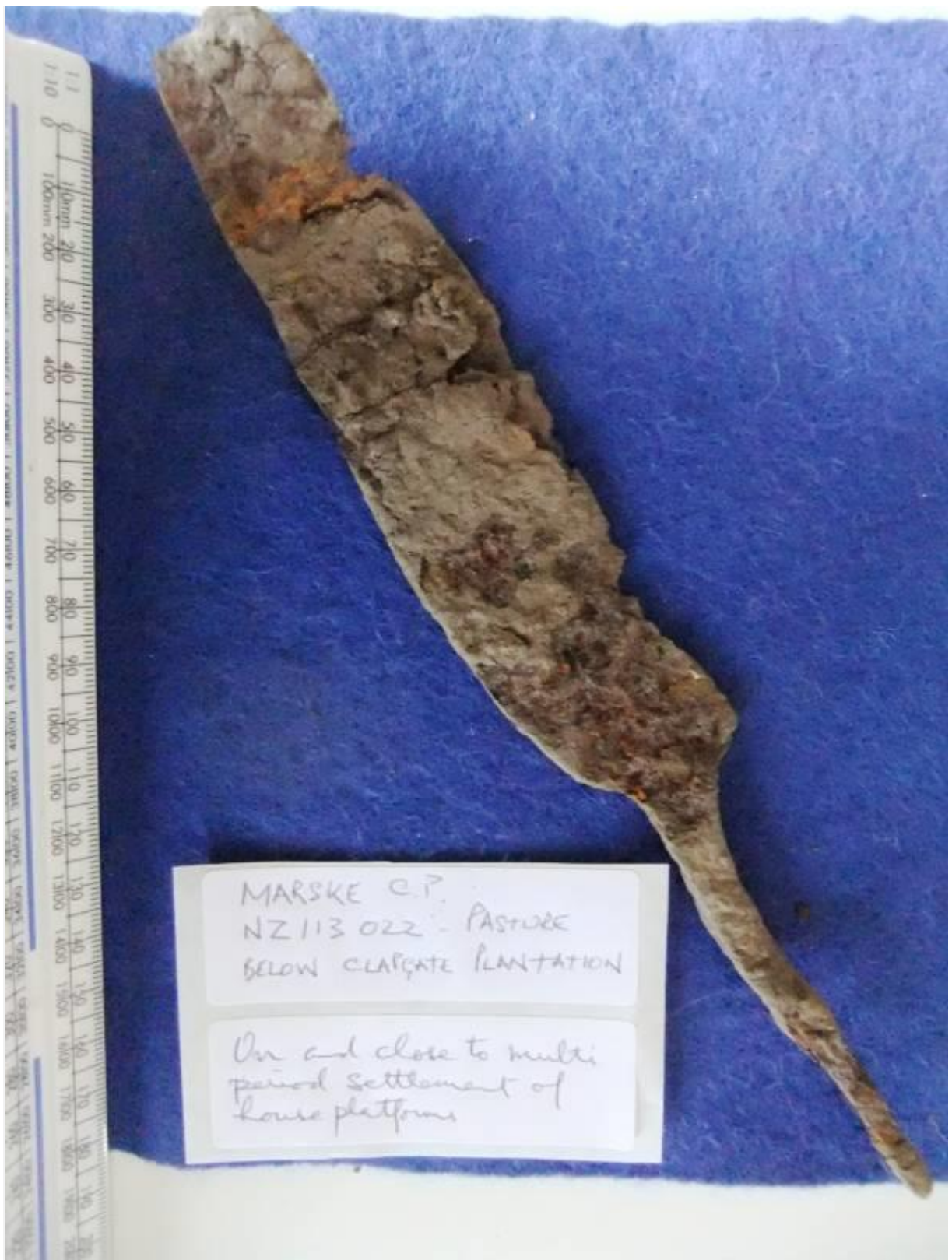
Record Number 715 >>> Image 13: Post medieval finds.



MARSKE C.P.  
NZ 113 022 - PASTURE  
BELOW CLARKE PLANTATION

On and close to multi  
period settlement of  
house platforms

Record Number 715 >>> Image 14: Fragment of leather.



MARSKE C.P.  
NZ 113 022 - PASTURE  
BELOW CLAFATE PLANTATION

One and close to multi  
period settlement of  
house platforms

Record Number 715 >>> Image 15: Iron tanged knife.

Record Name: Beehive quern top stone.

SWAAG ID Number: 716

Recorded Date: 2013-04-13 20:26:38

Recorded by: Stephen Eastmead

Category: Stone structure

Record Type: Archaeology

Site Access: Private

Record Date: 2013-04-13

Location: Healaugh

Civil Parish: Reeth

British National Grid: SE 017 990

Altitude: 205M

Description: Beehive quernstone found several years before in a house in Healaugh. Where and when it was originally found is unknown. The quernstone is now kept in a private garden above Healaugh.

The quernstone has a lop-sided asymmetrical shape similar to a horses hoof see image 10. There is a single hole for a handle which is conical in shape. The hopper is relatively large. It is made from a coarse millstone grit containing no crinoids or other fossils, but occasional pebbles up to 1cm.

Diameter: Ovoid 300mm - 330mm. Height varies between 160mm - 190mm. Hopper and Feed pipe are both off-centre. Hopper width ovoid 140mm - 150mm. Hopper Depth 60mm. Diameter of feed pipe 23mm. Handle hole ovoid and conical 30mm - 35mm diameter and 75mm deep. approx. The handle hole does not piece the feed pipe. The feed pipe gives the impression that it was mainly drill from the top, but later drilled from the bottom to complete the feed pipe.

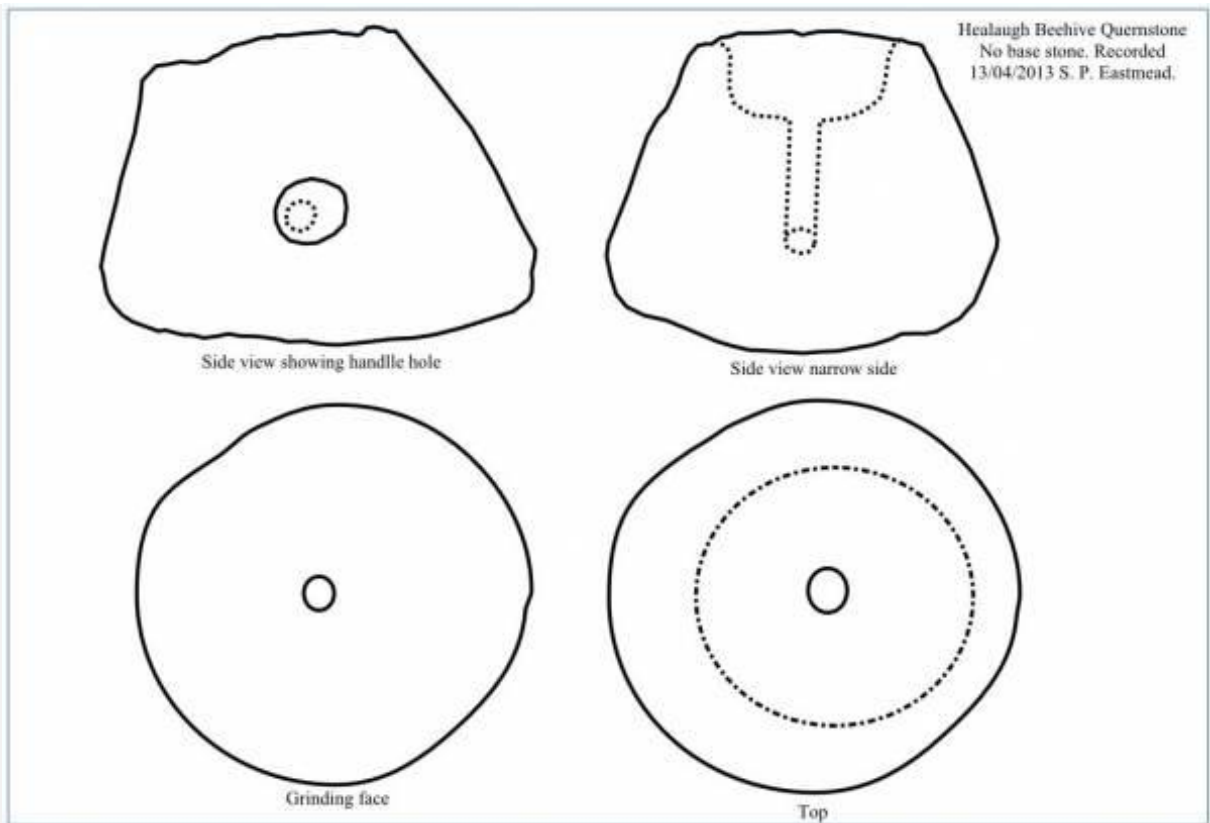
Dimensions: See above

Additional Notes: The technology change from Saddle to Beehive querns is thought to have occurred locally in the 4C BC. This quern is probably made locally from millstone grit similar to that found in Arkengarthdale.

There is no apparent equivalent form for millstone grit top stones in D.A. Heslop's Patterns of Quern Production, Acquisition and Deposition, Yorkshire Archaeological Society Occasional Paper No. 5. Most hoppers appear to have a more conical shape to their hoppers whereas this quernstone has a more gradual 'bowl' shape.

Image 12 shows the larger quern found at the Healaugh excavation 1988-90.

Last Update: 2013-04-14



Record Number 716 >>> Image 1: Drawing of a top stone of a Beehive quern found in Healough.



Record Number 716 >>> Image 2: Top stone of a Beehive quern found in Healough.



Record Number 716 >>> Image 3: Top stone of a Beehive quern found in Healaugh.



Record Number 716 >>> Image 4: Top stone of a Beehive quern found in Healaugh.



Record Number 716 >>> Image 5: Top stone of a Beehive quern found in Healaugh.



Record Number 716 >>> Image 6: Top stone of a Beehive quern found in Healaugh.



Record Number 716 >>> Image 7: Top stone of a Beehive quern found in Healaugh.



Record Number 716 >>> Image 8: Top stone of a Beehive quern found in Healaugh.



Record Number 716 >>> Image 9: Top stone of a Beehive quern found in Healaugh.



Record Number 716 >>> Image 10: Top stone of a Beehive quern found in Healaugh.



Record Number 716 >>> Image 11: Top stone of a Beehive quern found in Healaugh.



Record Number 716 >>> Image 12: Quern found during the 1988-90 excavation at Healaugh.



Record Number 716 >>> Image 13: Quernstone found on Hagg Farm Fremington



Record Number 716 >>> Image 14: Quernstone found on Hagg Farm Fremington



Record Number 716 >>> Image 15: Quernstone found on Hagg Farm Fremington



Record Number 716 >>> Image 16: Quernstone found on Hagg Farm Fremington. Note shallow handle hole.



Record Number 716 >>> Image 17: Millstone found during excavation of Site 103 in 2012 at on Hagg Farm Fremington. Site 103 is a Roman-British settlement abandoned around AD 370.

Record Name: The Prys Level Lead Mine Complex in Shaw Gill. Spring 2013.

SWAAG ID Number: 717

Recorded Date: 2013-04-14 14:59:23

Recorded by: Tim Laurie

Category: Mining Related

Record Type: Industrial Archaeology

Site Access: Public Footpath

Record Date: 2013-04-04

Location: Marrick CP. Hurst. Shaw Gill.

Civil Parish: Marrick

British National Grid: NZ 0664 0252

Altitude: 250m

Geology: Stream cut ravine through Richmond Chert strata.

Description: The Prys Level.

'In 1859 a long adit was driven frm Shaw Beck below White Scar to reach the Shaw Vein 252m from the portal....' For a detailed description of the further extent of these workings, see K.C.Dunham and A.A.Wilson: British Geological Survey. 'Geology of the North Pennine Orefield, Vol.2 Stainmore to Craven, pp149,150

These photographs were taken during a snow shower while walking from Hurst through Shaw Gill to Helwith Farm and returning to Hurst via Holgate Gill and the Goats Road, see also Swaag Records Nos ...

Dimensions: See photos

Additional Notes: The location of the Level portal is at the head of the extensive tailings near the Mine Office Building.

It was my impression that the roof of this building had suffered further collapse damage from the recent heavy snow.

Last Update: 2013-04-14



Record Number 717 >>> Image 1: The Prys Level and Mine Shop in Shaw Gill.



Record Number 717 >>> Image 2: Dead sheep, one of two recent casualties, at entrance door to the mine office.



Record Number 717 >>> Image 3: Stone slate, with peg hole.



Record Number 717 >>> Image 4: The ruined roof with king post roof truss.



Record Number 717 >>> Image 5: Tailings or spoil heap on bank of Shaw beck.



Record Number 717 >>> Image 6: Booze teams or open lead ore storage bays.



Record Number 717 >>> Image 7: Lead mine structures and lead contaminated concentrate residue heaps. Who worried or worries now about lead pollution to the stream?



Record Number 717 >>> Image 8: Finally the snow stopped and the sun shone in Shaw Gill.

Record Name: Burnt mound on Copperthwaite Allotment east of Raygill

SWAAG ID Number: 718

Recorded Date: 2013-04-22 16:19:55

Recorded by: Tim Laurie

Category: Burnt Mound

Record Type: Archaeology

Site Access: Public Access Land

Record Date: 2005-01-01

Location: Marrick Moor. Copperthwaite Allotment. Spring rise East of Raygill.

Civil Parish: Marrick

British National Grid: NZ 0933 0248

Altitude: 340m

Geology: Richmond cherts.

Description: Very large burnt mound of characteristic crescentic form 12mx8mx1.5m high. Undisturbed but with visible burnt stone. At spring rise on open moorland today but on lightly wooded grassland in the Bronze Age.

This large and isolated burnt mound should be considered in context with the small curvilinear stone banked enclosure which is situated just 70m upslope from the burnt mound. See SWAAG Record No 719 to follow.

Dimensions: 12m\*8m\*1.5m

Additional Notes: Together, the settlement enclosure and burnt mound provide evidence for seasonal transhumant occupation during the Bronze Age close to the spring line on Copperthwaite Allotment. The existence of several similar small settlement enclosures lower downslope and the group of four burnt mounds at Stelling Springs confirms extensive activity on Copperthwaite Allotment predating but the forerunner to the coaxial field system.

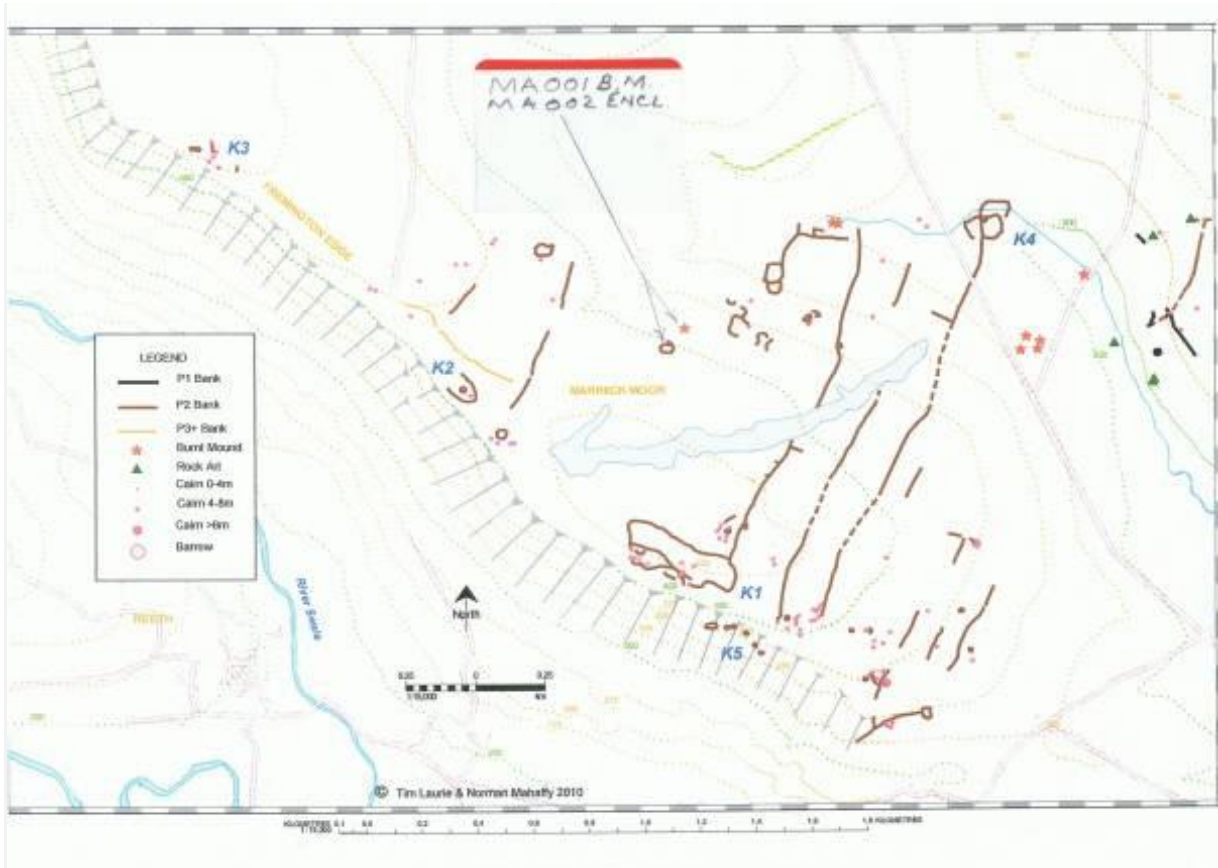
Reference:

Laurie, T.C. Mahaffy, N. and White, R. 2011.

Last Update: 2014-01-17



Record Number 718 >>> Image 1: The burnt mound east of Raygill.



Record Number 718 >>> Image 2: Location of the burnt mound and adjacent small settlement enclosure. Laurie et al 2011, Figure 6.17



Record Number 718 >>> Image 3: The enclosure with overlying lead shaft mound.



Record Number 718 >>> Image 4: The enclosure with two hut circles.

Record Name: Curvilinear stone banked enclosure east of Raygill, Copperthwaite Allotment.

SWAAG ID Number: 719

Recorded Date: 2013-04-22 17:10:59

Recorded by: Tim Laurie

Category: Settlement

Record Type: Archaeology

Site Access: Public Access Land

Record Date: 2005-01-01

Location: Marrick Moor. Copperthwaite Allotment. East of Raygill.

Civil Parish: Marrick

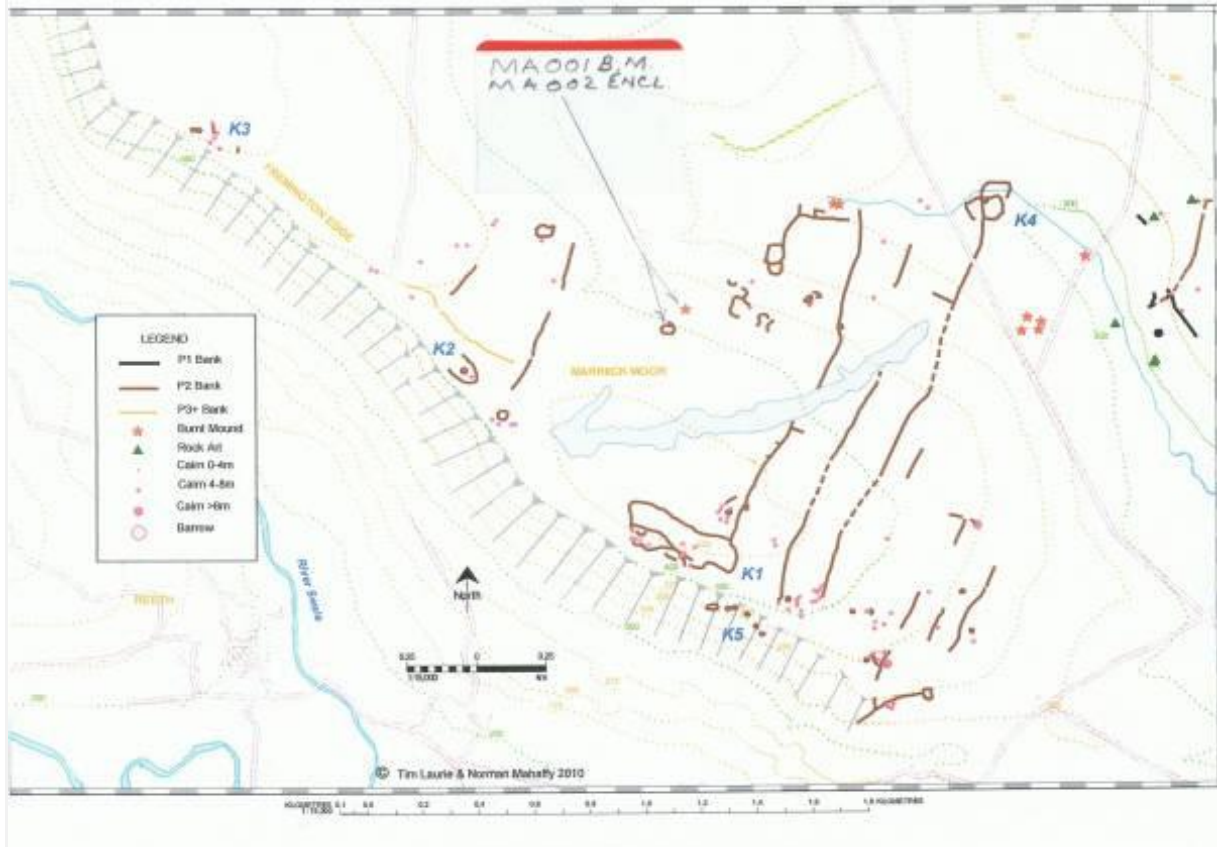
British National Grid: SE 0613 9883

Altitude: 350m

Geology: Curvilinear stone banked enclosure with two hut circles attached to the eastern perimeter.

Overlain by large shaft mound on northern perimeter. Large burnt mound (SWAAG 718) at spring rise some 70m to the east.

Last Update: 2013-04-22



Record Number 719 >>> Image 1: Location of the enclosure and burnt mound, Laurie et al 2011 figure 6.17 annotated.



Record Number 719 >>> Image 2: The enclosure with two attached hut circles.



Record Number 719 >>> Image 3: The enclosure with shaft mound



Record Number 719 >>> Image 4: This large burnt mound is just 70m downslope from the enclosure

Record Name: Walden Moor. Depleted woodland in Deepdale Gill and on Deepdale Head Scar.

SWAAG ID Number: 720

Recorded Date: 2013-05-03 16:56:48

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-05-02

Location: Walden Moor. Deepdale Gill and Deepdale Scar

Civil Parish: Burton cum Walden

British National Grid: SD 9725 7970

Altitude: 430m to 490m

Geology: Main Limestone strata down to the Underset Limestone.

Description: Walden Moor. Depleted woodland in Deepdale Gill and on Deepdale Head Scar with a relict limestone woodland community now limited to a few rowans, stunted hazel in the Gill at 440m elevation (see photos) hawthorns, blackthorns and downy rose. Dog's Mercury (*Mercurialis perennis*) is surprisingly widespread, growing on cliff ledges by the stream and on the scar and this indicator points to the one time presence of a full limestone ashwood community here. Ferns are few. Maidenhair spleenwort and wall rue being the only species seen.

The fact that the limestone scars are not vertical and therefore accessible to rabbits would account for the absence of tree regeneration.

Species: Rowan. Hazel (stunted bushes on streamside cliff in Gill at 440m). Hawthorn. Blackthorn.

Downy rose.

Common Notable Species: Dog's mercury. Maidenhair spleenwort.

Tree Stems/Girth: All trees stunted and wind coppiced.

Additional Notes: In contrast to the waterfall ravines and limestone scars at the heads of tributary streams of Swaledale and of the Tees-Greta Uplands which generally support species rich relict woodland often with yew, juniper and aspen, the geologically very similar ravines of Wensleydale support very depleted, species poor relict woodland. Yew is present only at one location on the limestone scars of Wensleydale and is generally distributed throughout Swaledale (except in the Main Dale between Muker and Marrick. Juniper does not exist in Wensleydale and is present at more than 50 locations in Swaledale, see Laurie 2012. Aspen is present in Swaledale at more than thirty locations in Swaledale. Aspen is rare in Upper Wensleydale, being present only in hedgerows at lower elevations and very rarely seen in the upper Gills.

Last Update: 2013-05-03

Tree Geographical Area: Wensleydale



Record Number 720 >>> Image 1: Deepdale Gill at 440m elevation. Stunted hazel, rowan and downy rose on the low cliff above the stream.



Record Number 720 >>> Image 2: Deepdale Gill at 440m elevation. Stunted hazel, rowan and downy rose on the low cliff above the stream.



Record Number 720 >>> Image 3: View upward from the Gill towards towards Deepdale Head Scar.



Record Number 720 >>> Image 4: Two isolated small rowans with a few hawthorn bushes are the only surviving remnants of the woodland which once existed here.



Record Number 720 >>> Image 5: Recording at these cliff locations requires great care and these scars should not be climbed a they are not as easy to climb as they seem.

Record Name: Raven Scar, Walden Moor. The highest vertical limestone Scar in the NE Pennine Dales.  
SWAAG ID Number: 721  
Recorded Date: 2013-05-03 19:52:57  
Recorded by: Tim Laurie  
Category: Geographical Record  
Record Type: Geomorphology  
Site Access: Public Access Land  
Record Date: 2013-05-02  
Location: Raven Scar, Walden Moor.  
Civil Parish: Burton cum Walden  
British National Grid: SD 9775 7847  
Altitude: 500m

Geology: Deep and narrow stream cut gorge and glacially enlarged ravine estimated to be 60m-70m deep with exposed Richmond Chert and Main and Underset Limestone strata. The Main Limestone forms a sheer cliff with only slightly less vertical chert strata over and a very steep scree talus slope below. The lower and less prominent but tree lined cliff just above the stream is formed by the Underset Limestone.

Description: First seen in the far distance and photographed through \*10 lens from Deepdale Head, the fine limestone cliff within the deep ravine at Raven Scar is not well known and deserves to be recognised as a rival to High Cup Nick as one of the marvels of the Pennines.

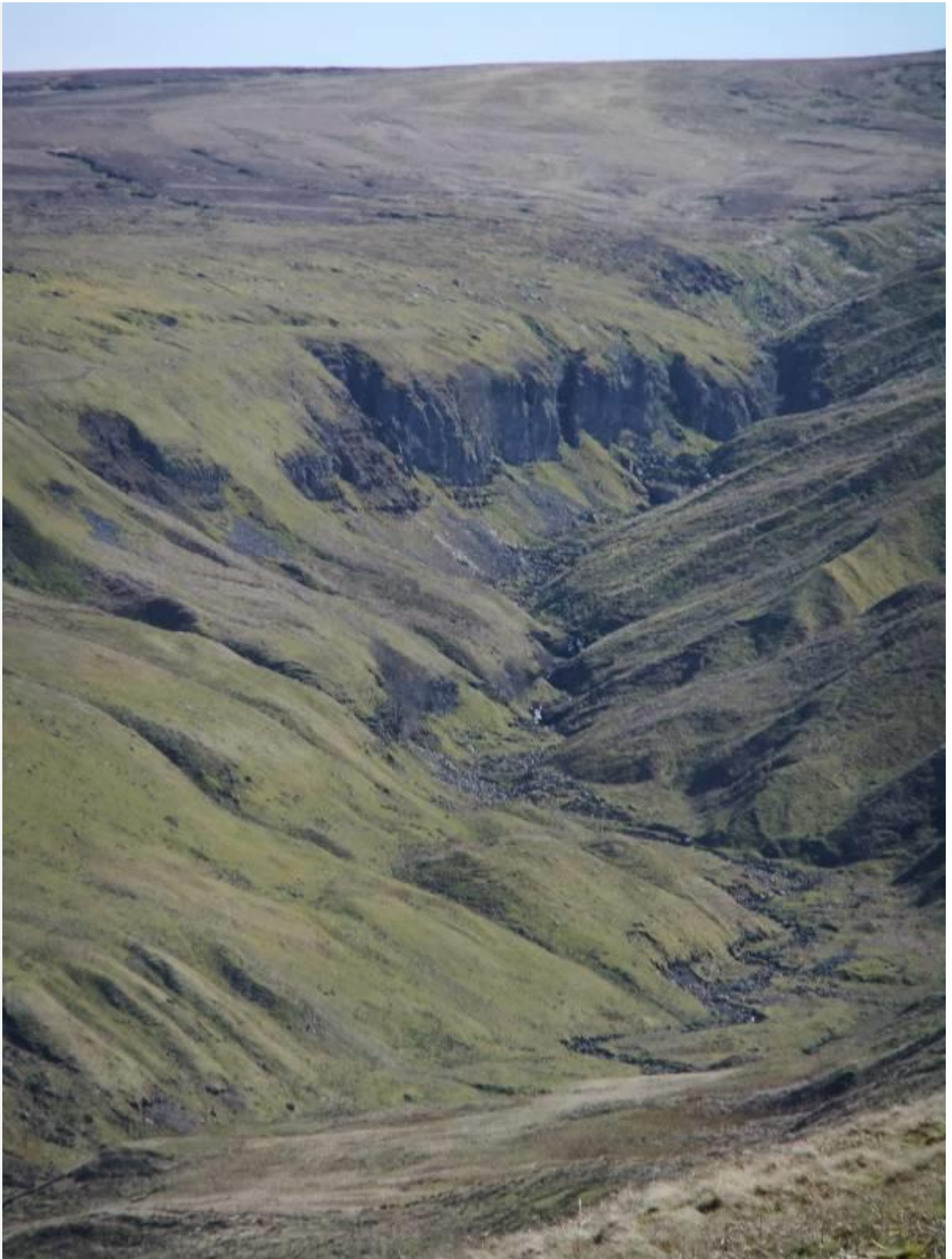
Dimensions: See photos.

Additional Notes: Watch this space for further botanical and tree records following a close acquaintance with this fine limestone gorge and cliff.

Last Update: 2013-05-04



Record Number 721 >>> Image 1: Raven Scar photographed through \*10 lens from Deepdale Head, Walden Moor.



Record Number 721 >>> Image 2:



Record Number 721 >>> Image 3:

Record Name: Walden Head. Willy's Gill. Wind Egg Scar. Depleted limestone ashwood at 460m.

SWAAG ID Number: 722

Recorded Date: 2013-05-05 11:21:01

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-05-03

Location: Walden Head. Willy's Gill. Wind Egg Scar

Civil Parish: Burton cum Walden

British National Grid: SD 978 815

Altitude: 460m

Geology: Wind Egg is at 460m elevation and formed from The Main Limestone with overlying Richmond Chert and is the upper of three limestone scars or cliffs formed at different elevations on the eastern side of Willy's Gill Beck. Fairy Scar, the middle scar with the prominent the isolated slumped cliff stack being formed from The Underset Limestone. The lowest, Falls Scar is formed by the Middle Limestone.

Description: Relict depleted limestone ashwood community on small Scar or limestone cliff formed from the Main Limestone and overlying Richmond Chert strata.

Dimensions: See photos

Species: Rowan and Hawthorn only

Common Notable Species: Rowan, Hawthorn only. See photos and above.

Additional Notes: This records the trees on Wind Egg which is the Uppermost Scar in Willy's Gill at 460m elevation, at the upper limit of trees in the North East Pennine Dales. Wind Egg supports just isolated trees of Rowan and Hawthorn. Lower down Willy's Gill and in comparative shelter, the Middle and Lower Scars (see SWAAG Records to follow this) support a more varied limestone ashwood community with mature ash trees, a small cloned colony of about 12 aspens, a few downy birch, wych elms (all visibly dead, but probably springing from the roots, rowans, sallows, shrub willows, much vigorous bird cherry, rowan, hazel, hawthorn and blackthorn and downy rose. Recorded and photographed from the opposite bank of Willy's Gill Beck. Notably absent are yews and juniper which would probably be present at similar elevation and localities in Swaledale.

Last Update: 2013-05-05

Tree Geographical Area: Wensleydale



Record Number 722 >>> Image 1: Walden Head. Willy's Gill. Wind Egg Scar from west.



Record Number 722 >>> Image 2: Walden Head. Wind Egg Scar. Limestone cliff accessible to sheep and with rowan and hawthorn only.

Record Name: Walden Head. Willy's Gill. The Fairy Scar. Relict Limestone Ashwood community.

SWAAG ID Number: 723

Recorded Date: 2013-05-05 16:18:30

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-05-03

Location: Walden Head. Willy's Gill. The Fairy Scar.

Civil Parish: Burton cum Walden

British National Grid: SD 9810 8097

Altitude: 430m

Geology: Underset Limestone exposed as a cliff with large slumped stack and scree talus slope below.

Description: This record is of the woodland which survives on the limestone cliff known as The Fairy Scar on the eastern side of Willy's Gill. This Scar is the middle of three scars at different elevations on the east side of Willy's Gill.

Trees as seen from the opposite side of the Gill include: ash, wych elm visible as dead fallen trunks, sallows, hazel, bird cherry, rowan, ivy. Hawthorn, blackthorn and downy rose may be present.

Dimensions: See photos.

Species: Ash

Common Notable Species: See above

Additional Notes: In contrast to the wealth of cliff yews and the widely distributed juniper on the limestone scars of Swaledale at similar elevation, yew and juniper are absent from this scar as elsewhere in Wensleydale where yew is recorded only at one cliff location.

Last Update: 2013-05-05

Tree Geographical Area: Wensleydale



Record Number 723 >>> Image 1: Willy's Gill. The Fairy Scar and slumped cliff stack seen from the west.



Record Number 723 >>> Image 2:



Record Number 723 >>> Image 3:



Record Number 723 >>> Image 4:



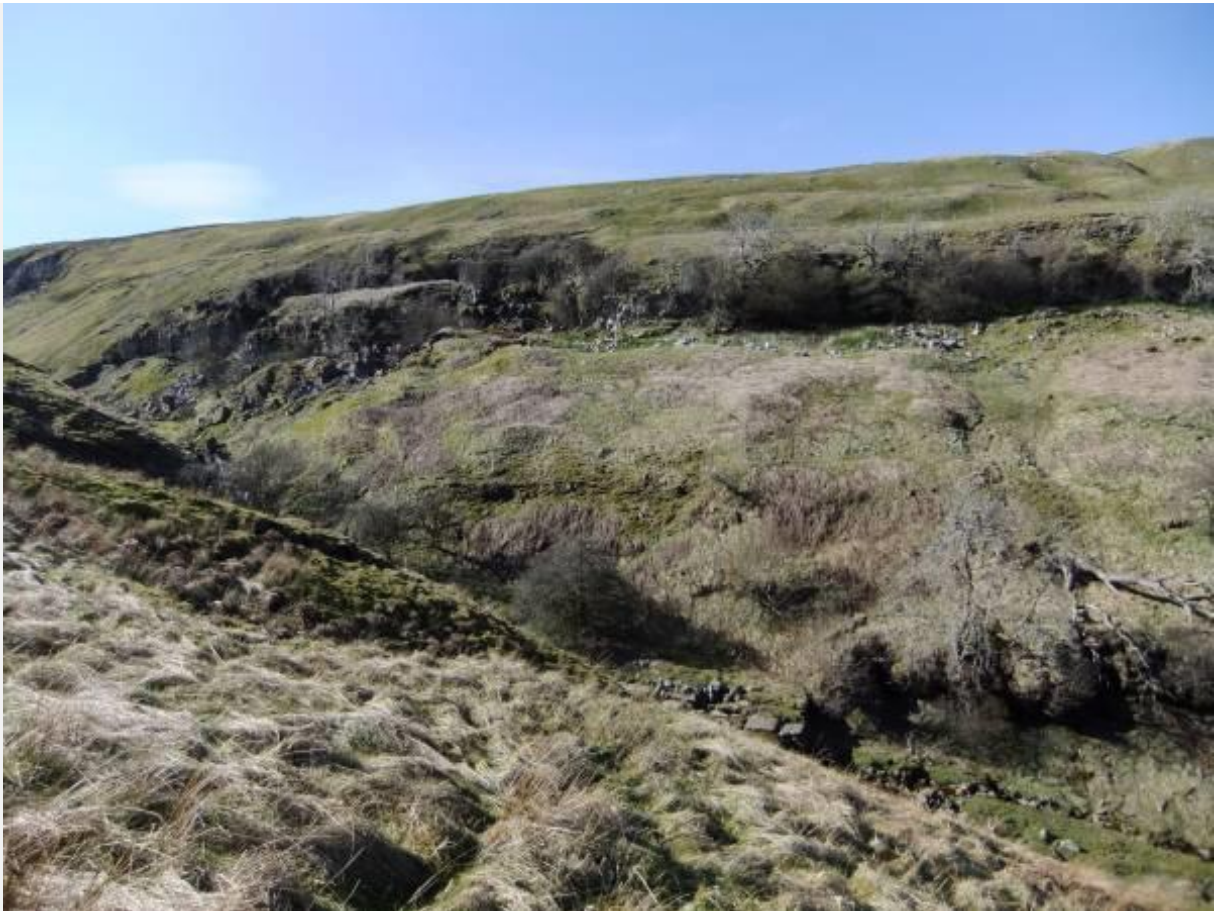
Record Number 723 >>> Image 6: The Fairy Scar- upper scar and Falls Scar-lower scar seen from opposite side of the Gill.



Record Number 723 >>> Image 7:



Record Number 723 >>> Image 8:



Record Number 723 >>> Image 9:



Record Number 723 >>> Image 10:

Record Name: Imaginative reconstruction of a roundhouse at Hagg Site 103

SWAAG ID Number: 724

Recorded Date: 2013-05-09 08:01:35

Recorded by: Peter Denison-Edson

Category: House Platform

Record Type: Archaeology

Site Access: Private

Record Date: 0000-00-00

Civil Parish: Reeth

British National Grid:

Description: An imaginative reconstruction of one of the circular structures revealed during SWAAG's excavation at Hagg Site 103 in June 2012, drawn by the second-youngest member of the team. Note how Tamsin has incorporated research suggesting that hearth-smoke percolated through the thatch, helping to keep it dry and fumigated, rather than through a central hole perfectly placed to douse any fire during typical Pennine weather.

SWAAG Site: Hagg Farm

Last Update: 2013-05-09



Record Number 724 >>> Image 1: Reconstruction of a circular structure at Hagg Site 103

Record Name: Walden. Willy's Gill. The Waterfall Scar Relict limestone ash woodland community with aspen clones with

SWAAG ID Number: 725

Recorded Date: 2013-05-10 14:00:56

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-05-02

Location: Wensleydale, Walden Head. Willy's Gill

Civil Parish: Burton cum Walden

British National Grid: SD 9830 8092

Altitude: 380m

Description: This record is of the woodland which survives on the small outcrop of limestone on the east bank of Willy's Gill below the waterfall and directly below The Fairy Scar. This Scar is the lowest of three scars at different elevations on the east side of Willy's Gill. Trees as seen from the opposite side of the Gill include: ash, aspen, sallows, hazel, bird cherry, rowan.

Dimensions: See photos

Species: Aspen.

Scientific Name: *Populus tremula*

Common Notable Species: Ash, Sallow (*Salix* spp), Rowan. Hazel.

Note a further visit to this location will be made in summer to record the vegetation.

Additional Notes: The presence here of a cloned colony of aspen (*Populus tremula*) is of special interest since whereas aspens occur within hedgerows lower down in Wensleydale, this is the first record of aspen above 350m in Wensleydale. In contrast, aspens are recorded as present above 350m at many locations in Swaledale and often in association with juniper. Juniper was recorded by Percival at four locations in Wensleydale but none of these records has been recently confirmed. (Millward, 1988. Juniper is now probably absent from the entire Ure Catchment. Fossil juniper has however just now been recognised below thin blanket peat above Walden Head above Fossedale Gill at an elevation of 540m some 2km to the SW.

Reference:

Millward, D. 1988. 'A Flora of Wensleydale.' The Yoredale Natural History Society.

Last Update: 2013-05-10

Tree Geographical Area: Wensleydale



Record Number 725 >>> Image 1: Walden. Willy's Gill. The Waterfall Scar Relict limestone ash woodland community with aspen clones.



Record Number 725 >>> Image 2: The Falls with rowan and willows.



Record Number 725 >>> Image 3:



Record Number 725 >>> Image 4: The Waterfall Scar Relict limestone ash woodland community with aspen clones.



Record Number 725 >>> Image 5: Ash tree, detail.



Record Number 725 >>> Image 6: Ash tree, detail.

Record Name: Fossedale Pike.Remains of Juniper below blanket peat at 538m AOD..

SWAAG ID Number: 726

Recorded Date: 2013-05-10 14:50:37

Recorded by: Tim Laurie

Category: Tree/Shrub Record

Record Type: Geological HER

Site Access: Public Access Land

Record Date: 2013-05-06

Location: Walden Head. Fossegill Pike.

Civil Parish: Burton cum Walden

British National Grid: SD 96993 78907

Altitude: 538m

Geology: Base of thin (.7m deep)blanket peat over Richmond Chert Strata.

Description: Remains of juniper (identification provisional, pending independent confirmation) visible at base of thin blanket peat in drainage gully at side of shooting track.

Dimensions: See photos

Additional Notes: Juniper has not been recorded recently in Wensleydale but was recorded at four locations in the Ure Catchment in the Flora published by John Percival in 1888. (Millward, D 1988. 'A Flora of Wensleydale'. Yoredale Natural History Soc.). These records have not been recently confirmed.  
Last Update: 2013-05-10



Record Number 726 >>> Image 1: Walden. Fosse Gill Head. Juniper remains below peat at 538m AOD.



Record Number 726 >>> Image 2: Juniper remains preserved under peat. Detail.



Record Number 726 >>> Image 3: Walden. Fosse Gill Head. Juniper remains below peat at 538m AOD.



Record Number 726 >>> Image 4: Walden. Fosse Gill Head. Juniper remains in drain below peat at 538m AOD.



Record Number 726 >>> Image 5: Walden. Fosse Gill Head. Juniper remains below peat at 538m AOD.

Record Name: Walden. Fosse Gill Head. Depleted limestone ashwood community in waterfall ravine.

SWAAG ID Number: 727

Recorded Date: 2013-05-11 11:39:12

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-05-06

Location: Walden. Fosse Gill Head Waterfall Ravine.

Civil Parish: Burton cum Walden

British National Grid: SD 9706 7889

Altitude: 514m

Geology: Stream cut waterfall ravine through The Main Limestone

Description: Depleted limestone ashwood community in ravine at 500m elevation. The only trees seen at this visit in early May 2013 were a solitary ash tree (at the local altitudinal limit for this tree) and several rowans including several very old examples. A further visit will be made in summer to record the vegetation and any further trees present.

Dimensions: See photos. Not yet surveyed.

Species: Ash, a solitary example at its local altitudinal limit.

Common Notable Species: Rowan.

A further visit will be made in summer to record the vegetation and any further trees present.

Additional Notes: By comparison with the vegetation of limestone scars of Swaledale at similar aspect and high altitude, for example Oxnop Scar (SWAAG Record No 350) and Long Scar in Great Sleddale (SWAAG Record No 327 ) the ashwood communities here at Fosse Gill Head and the adjacent Raven Scar (SWAAG Record No 721 and ) are very depleted.

A further visit will be made in summer to record the vegetation and any further trees present.

Last Update: 2013-08-28

Tree Geographical Area: Wensleydale



Record Number 727 >>> Image 1: Walden. Fosse Gill Head with ash tree and rowans. View from above the waterfall



Record Number 727 >>> Image 2: Walden. Fosse Gill Head with solitary ash tree above the waterfall. Late Spring.



Record Number 727 >>> Image 3: Walden. Fosse Gill Head with ancient multi stem rowan tree above the waterfall. Late Spring.



Record Number 727 >>> Image 4: Walden. Fosse Gill Head with solitary ash at 500m Elevation. Ancient cliff rowans the only other trees. Seen from above the waterfall



Record Number 727 >>> Image 5: Walden. Fosse Gill Head with solitary ash at 500m Elevation. Ancient cliff rowans the only other trees. Seen from above the waterfall



Record Number 727 >>> Image 6: Small falls on chert strata above the crinoid rich Main Limestone.

Record Name: Walden Head. Raven Scar. The Upper Main Limestone Scar. Depleted limestone woodland on scar

SWAAG ID Number: 728

Recorded Date: 2013-05-11 14:06:05

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-05-06

Location: Walden Head. Raven Scar. The Upper Main Limestone Scar.

Civil Parish: Not known

British National Grid: SD 9771 7845

Altitude: 488m

Geology: The Main Limestone with underlying sandstone strata exposed below. See also SWAAG Record 721

Description: Sheer inaccessible limestone cliff facing North West, well vegetated at top edge and with many well vegetated cliff ledges and relict depleted limestone woodland with many rowans, willow and, bird cherry the only trees seen. A further visit will be made later in the season to record the vegetation on the cliff ledges and on the scree below the Scar.

Dimensions: See photos

Species: Bird cherry.

Common Notable Species: Rowan, Willow, Hazel

Last Update: 2013-05-11

Tree Geographical Area: Wensleydale



Record Number 728 >>> Image 1: Raven Scar from below.



Record Number 728 >>> Image 2: Raven Scar from Deepdale above Walden Head.



Record Number 728 >>> Image 3: Raven Scar. Upper section of Scar with Bird cherry, rowan, sallows and hazel the only trees.



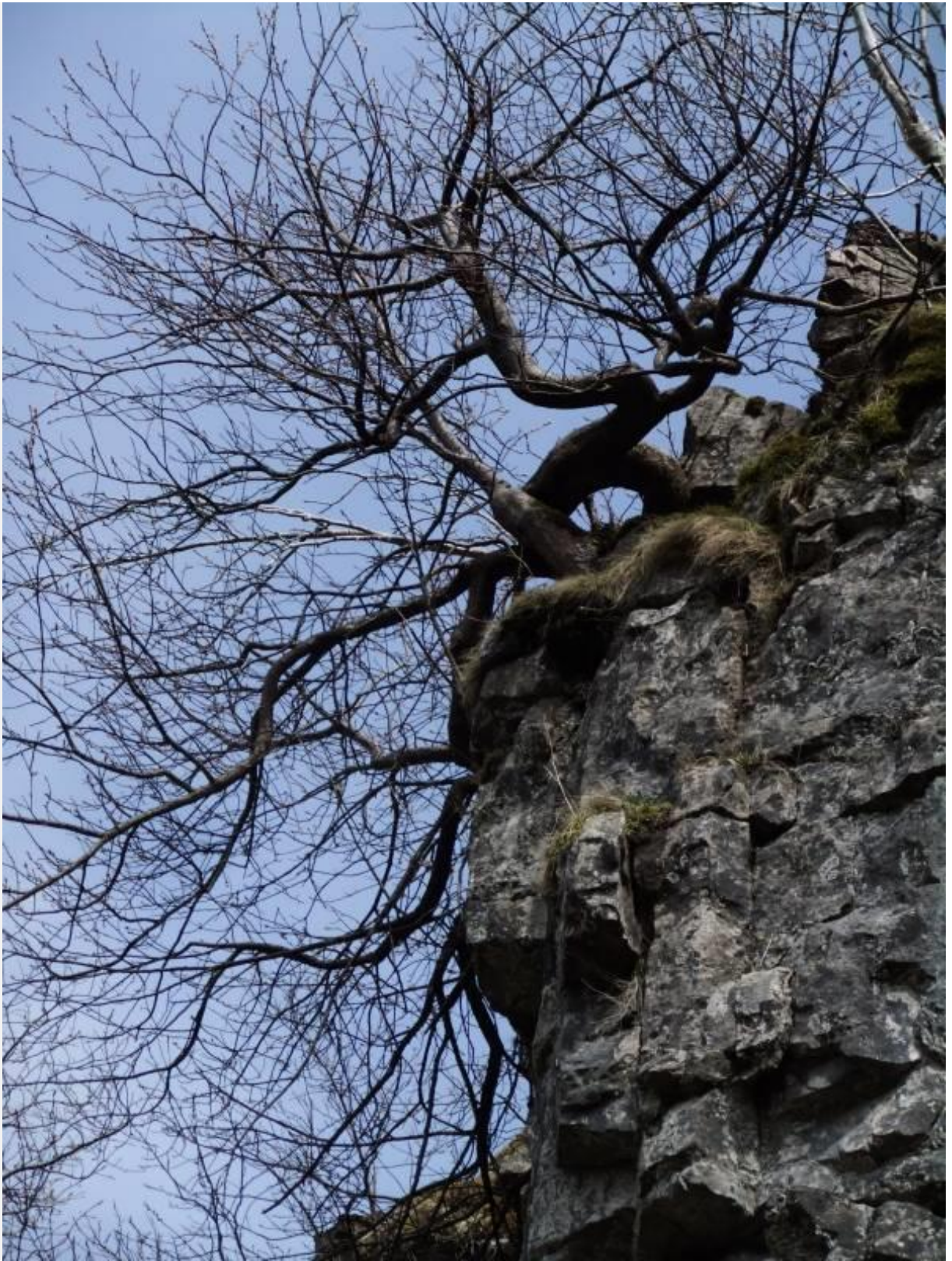
Record Number 728 >>> Image 4: Raven Scar. Upper section of Scar with Bird cherry, rowan, willows and hazel the only trees.



Record Number 728 >>> Image 5: Hazel on cliff ledge at 480m. This is the local altitudinal limit for hazel.



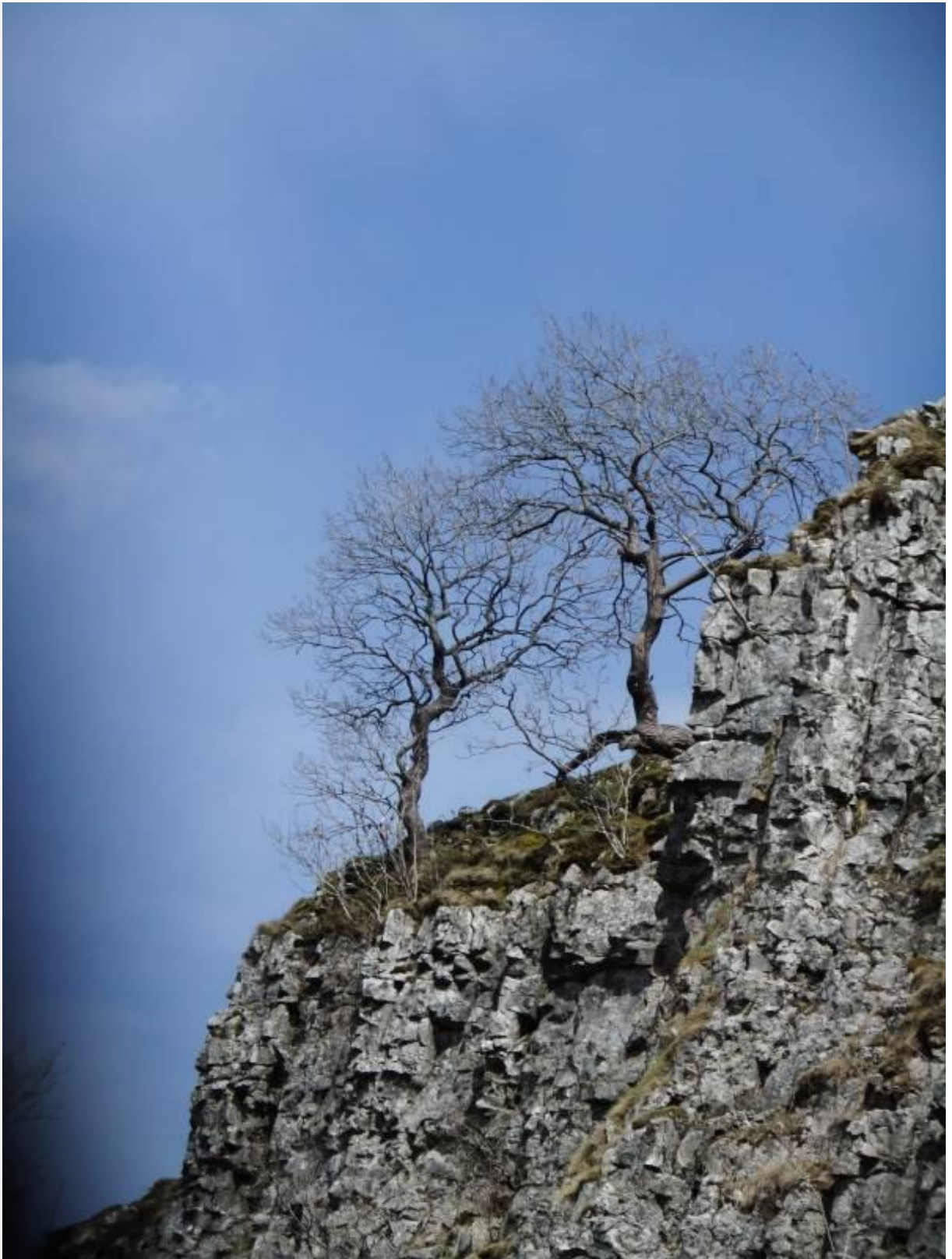
Record Number 728 >>> Image 6: A rich flora on the cliff ledges remains to be recorded.



Record Number 728 >>> Image 7: Bird cherry on the top edge of the cliff.



Record Number 728 >>> Image 8: Sallows at the top edge of the cliff.



Record Number 728 >>> Image 9: Sallows.



Record Number 728 >>> Image 10: A fine Rowan, representative of the many rowans on this cliff.

Record Name: Little Punchard Gill. Lower Ravine. Relict woodland with ancient Wych Elms.  
SWAAG ID Number: 729  
Recorded Date: 2013-06-08 19:28:51  
Recorded by: Tim Laurie  
Category: Tree Site Record  
Record Type: Botanical HER  
Record Date: 2013-06-06  
Location: Little Punchard Gill  
Civil Parish: Arkengarthdale  
British National Grid: NY 9628 0405  
Altitude: 408m-427m  
Geology: Stream cut ravine through faulted Main Limestone Strata  
Description: Fragment of relict upland limestone ash/wych elm woodland with several ancient wych elms, a single mature ash tree, one downy birch, several old rowans and willow.  
Dimensions: From NY96280405 upstream to the falls at NY96200398  
Species: Wych elm, ash, bird cherry, rowan, willow  
Common Notable Species: List to follow  
Additional Notes: A full list of the vegetation here is in preparation.  
Last Update: 2013-06-09  
Tree Geographical Area: Swaledale North Bank Catchment



Record Number 729 >>> Image 1: The approach to the Lower Ravine.



Record Number 729 >>> Image 2: Ancient wych elm, now dead and old rowan at lower end of ravine.



Record Number 729 >>> Image 3: Detail of dead wych elm



Record Number 729 >>> Image 4: Detail of dead wych elm.



Record Number 729 >>> Image 5: Wych elms grow from the low cliff just above stream level.



Record Number 729 >>> Image 6: Wych elms, bird cherry and willow.



Record Number 729 >>> Image 7: Very large self coppiced wych elm .



Record Number 729 >>> Image 8: Detail of this tree



Record Number 729 >>> Image 9: Detail of flowering shoot with winged seed.



Record Number 729 >>> Image 10: Detail of flowering shoot with winged seed.



Record Number 729 >>> Image 11: Base of large self coppiced wych elm on low cliff above stream.



Record Number 729 >>> Image 12:



Record Number 729 >>> Image 13: View down from top of lower ravine.



Record Number 729 >>> Image 14: Rowan at falls



Record Number 729 >>> Image 15:



Record Number 729 >>> Image 16: Starving rabbits can reach the base of inaccessible trees on snow banks, ring bark and kill ancient trees

Record Name: Little Punchard Gill. Upper Ravine. Relict limestone ash woodland with wych elms, bird cherry and isolated junipers.

SWAAG ID Number: 730

Recorded Date: 2013-06-09 16:52:42

Recorded by: Tim Laurie

Category: Tree Site Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-06-07

Location: Little Punchard Gill. Upper Ravine. From NY9596 0364 to NY9590 0351

Civil Parish: Arkengarthdale

British National Grid: NY 9593 0358

Altitude: 460-480m

Geology: Stream cut ravine through faulted Main Limestone.

Description: This species rich fragment of limestone woodland survives at the local altitudinal limit for wych elm and ash. Two isolated cliff junipers (one of which is the prostrate sub species, *J. communis* ssp. *nana*) were recorded two years ago. One of these has since died.

Trees present here include a very old and large self coppiced cliff ash, wych elms, rowans, large bird cherries, sallow, isolated birch, downy rose. Surprisingly hazel is absent.

Isolated colonies of the beech fern (*Phegopteris connectilis*) and oak fern (*Gymnocarpium dryopteris*) were recorded.

Ground flora included *Galium steneri*, *Myosotis silvestris*, *Epilobium Montana*, *Moschatel*, *Luzula silvatica*, *Blechnum spicant*, *Cystopteris fragilis*, *Asplenium trichomanes*, *Gymnocarpium dryopteris* and *Phegopteris connectilis*.

Dimensions: See photofile.

Species: Wych elm, ash, bird cherry, rowan, sallow, juniper

Common Notable Species: List of vegetation to follow.

Additional Notes: A more complete list of the vegetation here was recorded by Mrs Linda Robinson for BSBI Records.

Last Update: 2013-06-09

Tree Geographical Area: Swaledale North Bank Catchment



Record Number 730 >>> Image 1: Little Punchard Gill from Great Punchard.



Record Number 730 >>> Image 2: View downstream from the Upper Ravine towards Little Punchard Mine Shop



Record Number 730 >>> Image 3: View upstream into the Upper Ravine



Record Number 730 >>> Image 4: Approaching the Upper Ravine



Record Number 730 >>> Image 5: The Upper Ravine with Wych Elms, Bird Cherries, Ash and Rowans



Record Number 730 >>> Image 6: The Upper Ravine with Wych Elms, Bird Cherries, Ash and Rowans



Record Number 730 >>> Image 7: The Upper Ravine with Wych Elms, Bird Cherries, Ash and Rowans



Record Number 730 >>> Image 8: The Upper Ravine with Wych Elms, Bird Cherries, Ash and Rowans



Record Number 730 >>> Image 9: The Upper Ravine with Wych Elms, Bird Cherries, Ash and Rowans



Record Number 730 >>> Image 10: The Upper Ravine, Moschatel.



Record Number 730 >>> Image 11: View down the ravine



Record Number 730 >>> Image 12: View down the ravine



Record Number 730 >>> Image 13: View down the ravine with rowan



Record Number 730 >>> Image 14: View from top of ravine.



Record Number 730 >>> Image 15: Beech fern unfolding



Record Number 730 >>> Image 16: Beech fern , detail.

Record Name: John Moss's Chair  
SWAAG ID Number: 731  
Recorded Date: 2013-06-24 11:44:49  
Recorded by: Will Swales  
Category: Geological Record  
Record Type: Geological HER  
Site Access: Public Access Land  
Record Date: 2013-06-20  
Location: Grinton Gill  
Civil Parish: Grinton  
British National Grid: SE 043 977  
Altitude: 260m

Geology: Carboniferous sandstone feature

Description: John Moss's Chair is a name marked on the OS Explorer map just west of Grinton Gill, but the map gives no clue to what it is or exactly where it is. Fortunately the OS 25-inch map of 1912 is more specific and marks its location very precisely, deep in the cut of Grinton Gill.

It can be reached easily via the bridleway that runs westwards from Grinton Lodge Youth Hostel and then, where it crosses the gill, by following the unmarked footpath downstream on the east side of the water. After less than 100 metres, a rather obvious, large rock outcrop becomes clearly visible on the opposite side of the gill. The front elevation is about three metres square, and it seems to have four legs. It looks like a giant's chair. Thanks to John Russell for pointing out that the rock is carboniferous sandstone.

But who was John Moss? The name goes back to before 1857 when John Moss's Chair was marked on the first OS map published in that year. The OS surveyors gathered their information from local people. What did they say? Was he a mythical giant who people once believed lived in the gill or on the moor above? Or was the rock named as a joke, after a local man who was very big?

See also Nanny Ward's Well at Record 732

Last Update: 2013-06-24



Record Number 731 >>> Image 1: John Moss's Chair - a natural rock feature that looks like a giant's chair



Record Number 731 >>> Image 2: The view from atop John Moss's Chair looking down Grinton Gill

Record Name: Nanny Ward's Well  
SWAAG ID Number: 732  
Recorded Date: 2013-06-24 11:51:55  
Recorded by: Will Swales  
Category: Stone structure  
Record Type: General HER  
Site Access: Public Footpath  
Record Date: 2013-06-20  
Location: West of Grinton village  
Civil Parish: Grinton  
British National Grid: SE 045 983  
Altitude: 190m

Description: On the OS Explorer map, Nanny Ward's Well is marked in blue and named as a spring. It is identified as being to the west of Grinton village, but its precise location isn't clear. Fortunately the OS 25-inch map of 1912 is more specific and marks its location very precisely at the junction of two footpaths. It's where the path from the moor at Blue Ball, which descends the dale side roughly parallel with Grinton Gill, meets the path from the village running westwards across fields to meet Swale Hall Lane. At the junction of the two footpaths there is a spring but it is not the spring head. The water rises about 150 metres higher up the dale side, next to the path from Blue Ball.

At the footpath junction there are the scattered remains of some sort of stone structure, possibly a small dwelling that might have been constructed over the top of the spring, or alongside it. A few metres downstream the spring appears to join the mill race that once brought water from Cogden Gill to power the corn mill on Swale Hall Lane. Conceivably the structure at Nanny Ward's Well predated the construction of the mill race. But what was it? Perhaps it was a cistern for accumulating the spring water.

And who was Nanny Ward? The name goes back to before 1857 when Nanny Ward's Well was marked on the first OS map published in that year. The OS surveyors gathered their information from local people. What did they say? Was she simply the purveyor of the cleanest water in town, or did she claim it to have special health-promoting properties? More investigation is required.

See also John Moss's Chair at record 731

Last Update: 2013-06-24



Record Number 732 >>> Image 1: The site of Nanny Ward's Well looking eastwards to stone remains, the spring and the stile on the footpath from Grinton village



Record Number 732 >>> Image 2: Another view of the site of Nanny Ward's Well looking eastwards, showing some of the scattered stone remains.

Record Name: Possible inclined planes in the Wetshaw area of Arkengarthdale.  
SWAAG ID Number: 733  
Recorded Date: 2013-06-26 07:45:22  
Recorded by: Alan and Judith Mills  
Category: Mining Related  
Record Type: Mining  
Site Access: Public  
Record Date: 2013-06-26  
Location: Arkengarthdale - Wetshaw  
Civil Parish: Arkengarthdale  
British National Grid: NY 979 027  
Description: Report on an investigation into possible inclined planes in the Wetshaw area of Arkengarthdale.

## Introduction

This investigation was carried out at the request of Mike Gill of the Northern Mines Research Society.

Mike had noticed some obvious traces of civil engineering associated with the mines in the area. From Google Earth and oblique aerial photographs he identified what look like three inclined tramways converging on the Black Whim area.

It is known that the mining entrepreneur Frederick Hall used inclines at Danby and Dam Rigg Levels to take ore to a central dressing floor. There is a record of a winding engine being sent from Boulton & Watt to Frederick Hall at Arkendale [sic] c1802 but it is not known where this was used. It is possible that it was used for hauling one or more of these inclines.

The purpose of this investigation is to determine if there is any evidence to support the following hypotheses:

1. that one or more of the features identified was a tramway used to carry ore from the mines to a common ore-dressing area
2. If so, is there any evidence to suggest the use of a winding engine; for example traces of masonry, cinders etc, noting that this whole area might have been extensively modified by the 20th century activities of Shevels & Co. while looking for fluorspar/barytes.

Alan & Judith Mills visited the area on 23rd May 2013 and Alan and Stephen Eastmead re-visited on 4th June 2013. This report covers the findings of both visits.

## The survey

The area was surveyed by walkover, following the line of the inclines, noting, photographing and recording interesting features. The dressing area was looked at first but no detailed investigation was carried out. A ruined building was noted at NY 97957 02438 - photo 3. It is not clear if this was

associated with the 19th century mining or the later 20th century workings. The nature of the spoil heaps nearby - photos 4 & 5 - might suggest the latter as the slope of the tops are uphill towards the tipping points, suggesting that some sort of powered vehicle was used.

Lead mining, as evidenced by a number of shafts, took place to the north of the dressing area. The three potential inclined planes seem to converge on a point to the north at NY 97950 02588, we refer to this as point X. For ease of identification of the inclined planes we have adopted the notation used by Mike Gill on Image 1. The central incline running approximately north is referred to as A, that to the west of it as B and that to the east as C.

Photo 6 is from the ruined building referred to above, looking up towards incline A (the noticeable nick on the horizon); photo 7 is from a point just to the north-east of the building also looking up towards A. Together with photos 11 and 11b these four photos show the embankment running down from incline A into the dressing floor area and the extent to which it has been slighted by later work, probably in the 20th century.

Moving on towards the potential inclines, photos 9, 10, 11 and 12 all show views from the point X, where the three inclines converge. Photo 11 is looking to the south, looking down to the dressing floor. It shows the embankment running down towards the dressing floor which at first sight looks like a spoil heap from a level but might perhaps be the cut from incline A.

Photo 11 is looking up incline A, showing that it has been cut into the natural and the sides raised. The depth is well illustrated in photo 12a, taken at the point where a leat crosses; the leat is clearly visible on the aerial photograph in record 735

Photo 9 shows a large shaft adjacent to point X to the south-east. This is approximately 25m across and 8m deep. This must be the shaft known as the Black Whim; Dunham & Wilson have it at NY 9795 0257, close to our gps reading of NY97950 02588 for the nearby intersection of the three inclines (point X). In addition, Photo 8 shows what seems to be a spoil heap from a level butting up to the spoil from the Black Whim shaft; as the top of the spoil heap approaches the base of the rim of the shaft it becomes narrower and seem to be walled, although no stone walling is visible. This must be the "adit" to which Dunham and Wilson refer (p137) to as being started about 100ft south of the Black Whim. At point X the direct route for incline A to the dressing floor is blocked by a low bank; this is shown in photo 12, to the right. It can be seen that the route of the incline turns to the east (left), around the top of the Black Whim and becomes much narrower, having the appearance of a leat. This then tapers out as it leaves the northern edge of the shaft but possibly carried on into what is undoubtedly a water management system just below and to the east of spoil heap referred to above.

Leaving point X and going up, incline A becomes very wide and uneven as we approach NY 97967 02686 where it is cut by the small leat visible on the aerial photo. The incline tapers out at NY 97972 02725 as it approaches an area of shafts - photo 13. It picks up again at NY 97972 02781 - photo 14 - and continues to a large dressing area on the top at NY 97958 02831 - photo 15 is from this point looking back south down the incline, photo 16 is of the dressing area itself. This final section of the incline is narrow and steep in places and heavily slighted by later mining activity. It is far from convincing as a man-made trackway.

Photo 24 shows the top of incline B at NY 97710 02857; this is possibly a loading platform. Photo 25 is looking back up the incline to the top; the upper section of B is quite compelling as an incline, however it soon becomes rough and marshy at NY 97755 02795. Photo 26 is from a little lower down B looking south to the dressing floor and showing the rough broken ground; there appear to be small workings along

the way at this point. At NY 97818 02718 a leat forms a U-bend to cross the incline - photo 27. Photo 28 at NY 97919 02584 is looking back up B. At NY 97949 02575 B turns left to avoid small shafts before joining A by the large shaft at NY 97950 02588.

Moving on to incline C, this is very difficult to identify at its foot where it is assumed it meets A and B at point X. Photo 29 shows the incline at NY 98000 02612, looking roughly north-east at the point where it begins to become visible although still very indistinct. Further up, the incline is clear and level. At NY 98100 02642 the incline is built-up and revetted - photo 30a. There seems to be a loading platform at NY 98131 02653 adjacent to the nearby mine workings - photo 31. Photos 32-35 show views of the dressing floor from this point in a generally south-west direction.

## Conclusions

The first objective (above) was to investigate whether one or more of the features referred to here as inclines A, B and C was indeed a tramway or trackway used to carry ore from the mines above to a common ore-dressing area below.

Incline A is not convincing in this regard. It does not share the characteristics of B and C being more deeply cut and much narrower in places. It looks more like a hush or the result of shallow opencast mining, perhaps a prospecting trench, than a trackway or tramway. This seems to be the interpretation of the surveyors who drew the 1st edition Ordnance Survey map (see image in record 735) who showed B and C as tracks with A as a cutting. The embankment below where A, B and C meet might well be the spoil from the hush / mining. In addition, the line of A supports this interpretation as if projected to the north it aligns well with a hush (or prospecting trench) on the other side of Whaw Edge (see aerial photo). Further, the obvious reworking of the embankment suggests it was viewed as spoil from a vein and the extent of the working suggests that something such as barytes was found. Against this interpretation as hush / opencast is the fact that the main lower section is very straight and not very deep. This suggests a prospecting trench rather than a hush or opencast. On balance the interpretation as a prospecting trench seems more likely although it could of course have been a trench later re-used as a trackway or indeed as a leat or even both!

The extension of A above the area of shafts looks even less like a way than that below, being narrow and steep in places. It does though lead to, or come from, what appears to be a dressing area on the very top of the bank (photo 16). There would have been little if any water at this location and so the partially dressed ore would have had to have been carried elsewhere, presumably to the major dressing area below. Whilst this upper section of A is not wide enough for a horse and cart nor for rails on sleepers, it might have been used to carry ore on sledges. It is of course possible that it started life as a hush / opencast and was then used as a route to transport ore to the floor below.

Incline B is more persuasive. There is a flattish area at the top which might have been a loading platform and the section down from this point is quite compelling as trackway. The ground soon deteriorates however and there are small workings on the line of the trackway; however both the deterioration and the workings might well have occurred after the trackway went out of use. It seems more likely than not that this was a trackway or tramway to bring ore down to the dressing floor.

Incline C is compelling as a trackway. It seems clear that there was a loading platform at the top and the track is built up in places. The lower section is very indistinct but its line if projected would meet with A and B at or near X, their intersection.

Overall, it seems more likely than not that A was not a trackway / tramway whilst B and C were.

The second objective was to see if there is any evidence to suggest the use of a winding engine; for example traces of masonry, cinders etc. As yet none has been found. A further visit will be made to investigate the possibility that inclines B and C did not intersect with A where we currently think but that C crossed A to meet B at the point NY 97949 02575 where B now appears to turn to avoid a small shaft. The initial focus on A might have been a distraction. In addition the ruined building below the embankment, and referred to above, warrants further investigation to explore the remote possibility that it was an engine house.

Other features of interest(see record 735 for photographs)

1. A possible bale site at NY 98700 02150. Photo 1
2. Possible hotching tubs on the side of the small lake / large pond at NY 98173 02365; may from the 20th century re-working of the spoil heaps. Photo 2
3. The surviving remains of a twin log ore washer/separator at NY 981 024. See Tin Laurie's SWAAG database entry no. 274 for a full description and photos.
4. The remains of two poorly constructed buildings at NY 98003 02823 and NY 98008 02813. Possibly miners' shelters. Photos 17 and 18.
5. A bale site at NY 97698 02863 . Photos 19 shows a stone with lead splatter; Photo 21 shows the site.
6. A probable bale at NY 97678 02869. Photo 22 shows a stone with possible lead silicate attached. A further possible bale is nearby at NY 97679 02865. No photo.

All photos copyright Alan Mills.

3rd July 2013

Additional Notes: Comment added by Stephen Eastmead:

Trackway/tramways A and B both have well defined leats crossing them. The leats post-date any use as a trackway/tramway. The leat crossing A also respects a large shaft beside A, so the shaft pre-dates the leat. The general appearance of 'trackways' A and B whilst very straight do not appear to be sufficiently level for a tramway, and there are no visible structures indicating a tramway. Having said that, the rough areas of ground tended to be wet with coarse grass tussocks. The current appearance could be associated with the leats falling into disrepair.

In my opinion C is the only 'trackway' that still has evidence supporting a possible tramway, the evidence being stronger at its distal end.

The comprehensive system of leats appeared to me to be taking water to the area to the south (below) where all the 'trackway' are heading and may be associated with the later barytes extraction by the

Shevels brothers see record [http://www.swaag.org/SWAAG-DATABASE/DB\\_MEMBERS\\_Specific%20Record%20Number2.php?swaagrec=274](http://www.swaag.org/SWAAG-DATABASE/DB_MEMBERS_Specific%20Record%20Number2.php?swaagrec=274) which is very close to this site.

Last Update: 2013-07-06



Record Number 733 >>> Image 1: 3. Ruined building at NY 97957 02438.



Record Number 733 >>> Image 2: 4. At ruined building looking SE.



Record Number 733 >>> Image 3: 5. At ruined building looking bit more E.



Record Number 733 >>> Image 4: 6. At ruined building looking N to A.



Record Number 733 >>> Image 5: 7. Looking NE up to A from foot of the embankment. Incline A crosses the horizon at the prominent nick roughly in the middle of the photo.



Record Number 733 >>> Image 6: 11. At NY97950 02588 (point X), where A, B, C appear to meet, looking down to the dressing area.



Record Number 733 >>> Image 7: 11b. The embankment, looking S from X.



Record Number 733 >>> Image 8: 9. At X looking SE to the nearby large shaft; the Black Whim



Record Number 733 >>> Image 9: 10. At X looking N up A



Record Number 733 >>> Image 10: 12. At X. The Black Whim in the background, the low bank which blocks the route of A to the South is in the foreground, right, with Stephen standing on it. At this point it looks like a leat.



Record Number 733 >>> Image 11: 12a. Incline A at NY 97967 02686 where it is cut by a small leat,

clearly visible on the aerial photo in record 735. Note the depth of cut of A. It was probably deeper originally.



Record Number 733 >>> Image 12: 13. A peters out at NY 07972 02725, looking S.



Record Number 733 >>> Image 13: 14 A continues at NY 97972 02781, looking NNW.



Record Number 733 >>> Image 14: 15. A ends at NY 97958 02831 looking S.



Record Number 733 >>> Image 15: 16. The dressing area where A ends.



Record Number 733 >>> Image 16: 24. At top of B NY 97710 02857; the slight rise in the ground might indicate a loading platform. However whilst not immediately evident on the ground, the photo suggests that the track continues beyond this point. The 1st Ed OS suggests the same. This will be investigated further.



Record Number 733 >>> Image 17: 25. Looking back to start of B



Record Number 733 >>> Image 18: 26. B, looking S, where it becomes very rough at NY 97755 02795



Record Number 733 >>> Image 19: 27. A leat loops across B NY 97818 02718; clearly visible on the aerial photo in record 735



Record Number 733 >>> Image 20: 28. At NY 97919 02584 looking up B



Record Number 733 >>> Image 21: 29. First signs of foot of C at NY 98000 02612



Record Number 733 >>> Image 22: 30a. Revetment on C at NY 98100 02642



Record Number 733 >>> Image 23: 31. Possible loading platform at the top of C; NY 98131 02653



Record Number 733 >>> Image 24: 32. View from NY 98131 02653 at the top of C



Record Number 733 >>> Image 25: 33. View from NY 98131 02653 at the top of C, moving E from photo 32.



Record Number 733 >>> Image 26: 34. View from NY 98131 02653 at the top of C, moving further E from photo 33.



Record Number 733 >>> Image 27: 35. View from NY 98131 02653 at the top of C, moving yet further E from photo 34.

Record Name: Arrowhead

SWAAG ID Number: 734

Recorded Date: 2013-06-28 09:41:28

Recorded by: Ric Carter

Category: Lithic Find / Scatter

Record Type: Archaeology

Site Access: Public Footpath

Record Date: 2013-06-08

Location: Kisdon Hill, near Hooker Mill Scar

Civil Parish: Muker

British National Grid:

Description: A small "fancy" barbed and tanged arrowhead 25mm x 19mm; the barbs of unequal length (max. 2mm) and both cleanly snapped; slight damage to the tang (max.5mm)as well. No visible damage to the tip or long edges. A stray find at the edge of the "Corpse Way" public footpath. Because of the damage to the barbs and tang no definitive classification can be attempted but may be of Conygar Hill type or Green Low type and attributed to the late Neolithic/early Bronze Age - see Flint Arrowheads: Typology and Interpretation by Stephen Green 1984 publ. ISSN 0262-7817 "Lithics" The Newsletter of the Lithic Studies Society

Dimensions: as above

Last Update: 2013-07-02



Record Number 734 >>> Image 1: arrowhead

Record Name: Possible inclined planes in the Wetshaw area of Arkengarthdale - maps & notes on other interesting features

SWAAG ID Number: 735

Recorded Date: 2013-06-30 05:29:16

Recorded by: Alan and Judith Mills

Category: Mining Related

Record Type: Mining

Site Access: Public

Record Date: 2013-06-04

Location: Arkengarthdale - Wetshaw

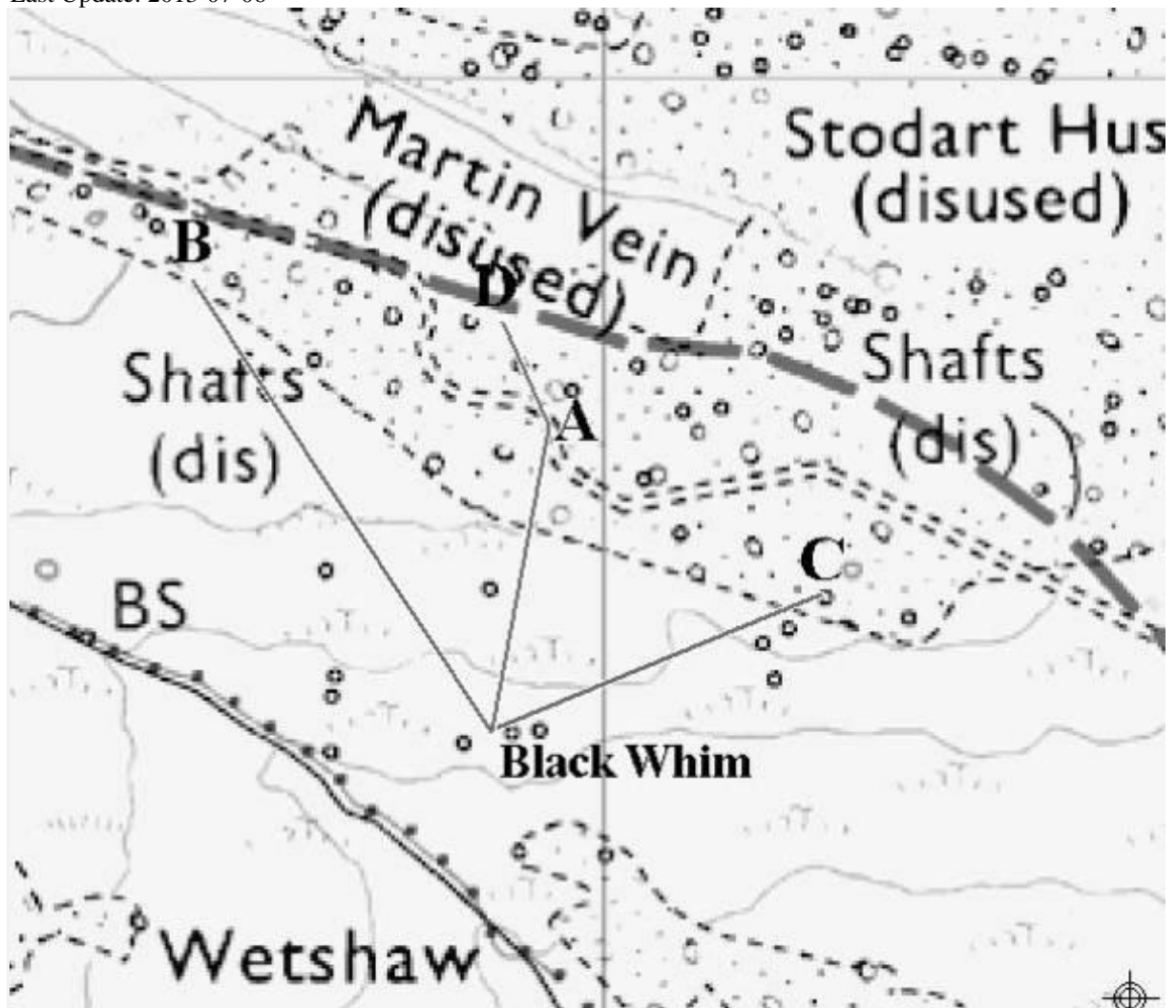
Civil Parish: Arkengarthdale

British National Grid: NY 979 027

Description: This record contains the maps and aerial photograph of the Wetshaw area used in the investigation into the potential inclined planes covered in record 733 as well as photos of other interesting features noted on the visits there.

All photos copyright Alan Mills.

Last Update: 2013-07-06



Record Number 735 >>> Image 1: Map annotated by Mike Gill showing the line of the three potential trackways, labelled A, B and C - copyright Mike Gill.



Record Number 735 >>> Image 2: A section from the 1st ed OS of the area showing the three potential trackways. B and C above are shown as tracks; A appears to be a cutting.



Record Number 735 >>> Image 3: Aerial photograph of the area - copyright Mike Gill



Record Number 735 >>> Image 4: Photo 1. Possible bale at NY 98700 02150



Record Number 735 >>> Image 5: Photo 2. Possible hotching tubs at NY 98173 02365. Could be from the 20th century works.



Record Number 735 >>> Image 6: Photo 17. Remains of a small building at NY 98003 02823, another nearby. Possibly miners' shelters.



Record Number 735 >>> Image 7: Photo 18. The other ruined building at NY 98008 02813.



Record Number 735 >>> Image 8: Photo 21. Bale site at NY 97698 02863



Record Number 735 >>> Image 9: Photo 20. Rock with lead attached at the bale site, NY 97698 02863



Record Number 735 >>> Image 10: Photo 22. Stone with lead silicate? attached. At possible bale at NY 97678 02869

Record Name: Jacobs Ladder photographed in Wensleydale.

SWAAG ID Number: 736

Recorded Date: 2013-07-07 09:13:18

Recorded by: Tim Laurie

Category: Flower / Plant Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2011-06-20

Location: Wensleydale

Civil Parish: Not known

British National Grid:

Geology: Main Limestone

Description: Jacobs ladder(*Polemonium caeruleum*)in Wensleydale.

One of the many highlights of the recent visit by SWAAG members to Malham was the sight of several hundred flowering *Polemonium caeruleum* plants first recognised by Ann Russell in protected grassland close to Malham Cove.

The photographs attached are of this great rarity growing on a remote cliff ledge in Wensleydale.

Species: Jacobs Ladder

Scientific Name: *Polemonium caeruleum*

Last Update: 2013-07-07

Tree Geographical Area: Wensleydale



Record Number 736 >>> Image 1: Jacobs Ladder, *Polemonium caeruleum*, a great rarity in the Pennine Dales. This beautiful flower was seen in profusion during the recent visit by SWAAG Members to Malham.



Record Number 736 >>> Image 2:

Record Name: Malham Moor. Round house settlement on Middle House Pasture.

SWAAG ID Number: 737

Recorded Date: 2013-07-07 10:46:44

Recorded by: Tim Laurie

Category: Settlement

Record Type: Archaeology

Site Access: Public Access Land

Record Date: 2013-07-05

Location: Malham Moor. Middle House Pasture.

Civil Parish: Not known

British National Grid: SD 901 681

Altitude: 475M

Geology: Great Scar Limestone Karst scenery with pavement and adjacent doline depression and watersink.

Reference: Waltham, D. and Lowe, D. (Eds.) 2013. 'Caves and Karst of the Yorkshire Dales. Volume 1.' British Cave Research Association. ISBN 978-0-900265-46-4 (paperback).

Volume 1 of this invaluable new book includes a total of 16 chapters written by specialist researchers on different aspects of the Pennine Limestone Scenery and provides a comprehensive review of the current understanding of the landscapes of the Craven Limestone Uplands.

Description: This settlement comprises a total of twenty two round houses and ancillary huts enclosed by a very substantial stone bank which has the appearance of a very large paddock-like field. A further very large paddock enclosure which appears devoid of huts is attached to this settlement enclosure.

This very high village settlement has the appearance (and probably a similar function) of an African kraal and would have been occupied by pastoralist farmers with their animals taking advantage of the fine grassland and hazel scrub browse during the summer months.

The settlement is located close by a doline depression and water sink, now infilled with shallow peat, which would have provided the essential open water supply, very scarce on the limestone uplands.

It should be borne in mind that the areas of extensive limestone pavement would have been concealed under a loessic soil of windborne silt of late glacial origine. This soil supported light hazel scrub and mixed deciduous limestone ashwood.

The present open grassland landscape of Malham Moor developed following woodland clearance and intensive grazing during the Iron Age and subsequently.

For a survey of this settlement, see Arthur Raistrick with Paul Holmes, 1962.

'Archaeology of Malham Moor.' (I am indebted to Ric Carter for providing me with a copy of Arthur Raistrick's 'Archaeology of Malham Moor.')

Dimensions: Settlement enclosure bank contains 22 round houses and is 400m in circumference. Second attached enclosure is larger.

Additional Notes: Raistrick excavated two of the round houses at Middle House Pasture. He describes the excavation and the few finds. By analogy with other sites in the area, Raistrick considered that the settlement at Middle House pasture was of Late Iron Age or Romano British Age.

Last Update: 2013-07-07



Record Number 737 >>> Image 1: The settlement location on Middle House Pasture. Above the Scar in middle distance.



Record Number 737 >>> Image 2: Ric in possession.



Record Number 737 >>> Image 3: The walk to Middle House Pasture passes Ha Mire and Great Close Mire which were once extensions of Malham Tarn visible in distance.



Record Number 737 >>> Image 4: Cotton Grass with Birds Eye Primrose.



Record Number 737 >>> Image 5: Northern Marsh Orchids.



Record Number 737 >>> Image 6: Ha Mire is Spring fed. Bog bean seen here.



Record Number 737 >>> Image 7: Great Close Scar. Round barrow on summit. Mesolithic Sites were located at the edge of Ha Mire, then open water, below the Scar



Record Number 737 >>> Image 8: The Settlement enclosure with round houses and Jackie surveying the scene.



Record Number 737 >>> Image 9: Ric , in possession and Master of all he possesses.



Record Number 737 >>> Image 10: 'Farewell to the ancient world... but a Brave New World awaits...'



Record Number 737 >>> Image 11: The long walk back to Malham Tarn starts across limestone pavement. Clints and grykes were formed below loessic soil which supported hazel scrub and limestone ashwood. An Iron Age field boundary crosses the bare limestone, once woodland.



Record Number 737 >>> Image 12: Clints and grykes were formed below loessic soil which supported

hazel scrub and limestone ashwood. An Iron Age field boundary crosses the bare limestone, once woodland.



Record Number 737 >>> Image 13: Malham Tarn. Evening sun.



Record Number 737 >>> Image 14: 'I think I can see where the cars may be...!'



Record Number 737 >>> Image 15: Ha Mire again.

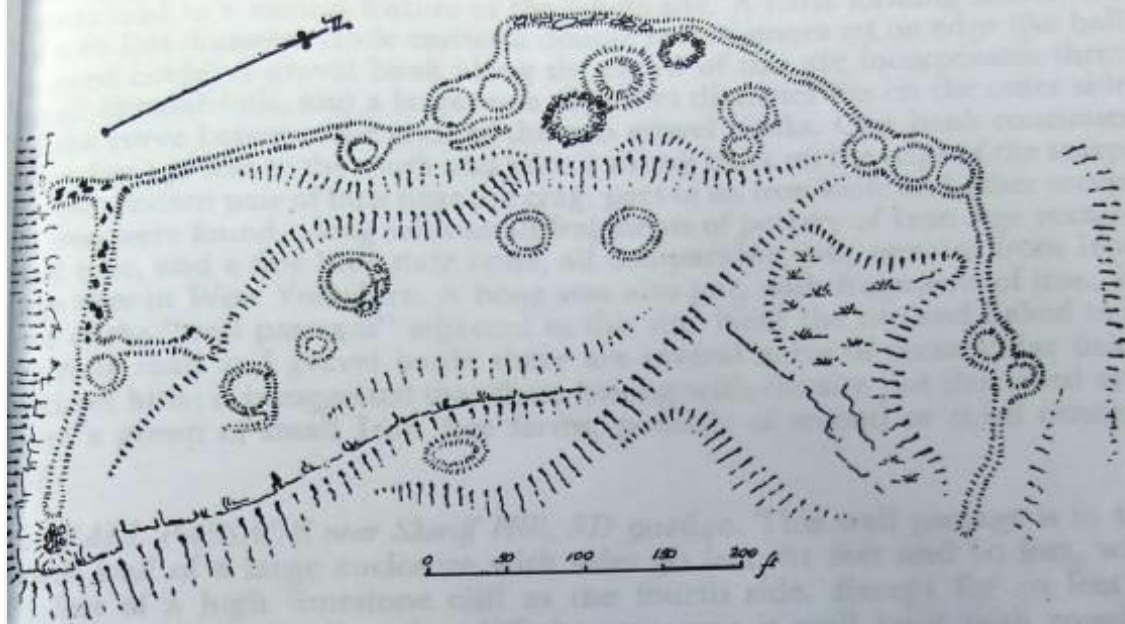
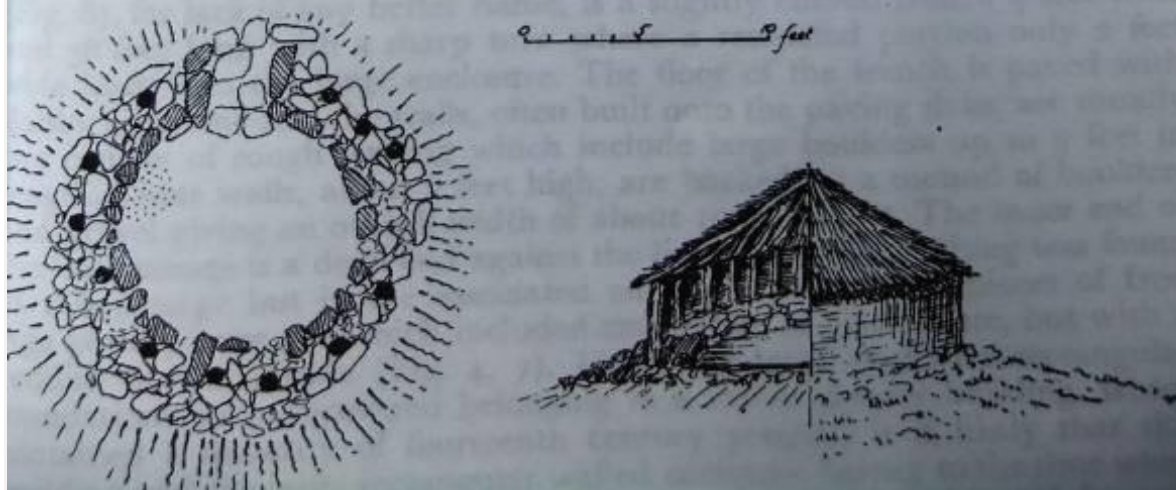


FIG. 5.  
Middle House Pasture, Iron Age complex.



Record Number 737 >>> Image 16: Arthur Raistrick.1962. Archaeology of Malham Moor, Figures 5 Middle House Moor. Iron Age Complex and 6. Hut on Middle House Moor. Plan and Reconstruction. Field Studies 1, 73-100.:

Record Name: Viper's Bugloss (*Echium vulgare*) and Houndstongue (*Cynoglossum officinale*) in Lower Swaledale.

SWAAG ID Number: 738

Recorded Date: 2013-07-08 15:19:26

Recorded by: Tim Laurie

Category: Flower / Plant Record

Record Type: Botanical HER

Site Access: Private

Record Date: 0000-00-00

Location: Whitcliffe Scar and Applegarth Scar

Civil Parish: Richmond

British National Grid:

Altitude: 250m

Geology: The Main Limestone and Quarry on Richmond Chert strata.

Description: Viper's Bugloss (*Echium vulgare*) can be seen on calcareous scree slopes on Whitcliffe Scar and in Whitcliffe Wood wherever the absence of tree canopy allows it to flower.

The uncommon deep red-brown flowers of Houndstongue (*Cynoglossum officinale*) can be seen on steep scree below Applegarth Scar where it seems to have replaced *Echium vulgare*.

Dimensions: N/A see photos

Species: Viper's Bugloss and Houndstongue

Scientific Name: *Echium vulgare* and *Cynoglossum officinale*

Last Update: 2013-07-11

Tree Geographical Area: Lower Swaledale



Record Number 738 >>> Image 1: Viper's Bugloss (*Echium vulgare*) with Skipper Butterfly. Whitcliffe Scar.



Record Number 738 >>> Image 2: Viper's Bugloss (*Echium vulgare*). Whitcliffe Wood Quarry.



Record Number 738 >>> Image 3: Viper's Bugloss (*Echium vulgare*)



Record Number 738 >>> Image 4: Houndstongue (*Cynoglossum officinale*) at West Applegarth Scar. Note the deep colour of the flowers.



Record Number 738 >>> Image 5: Houndstongue (*Cynoglossum officinale*) at West Applegarth Scar. Note the deep colour of the flowers.



Record Number 738 >>> Image 6: Houndstongue (*Cynoglossum officinale*) at West Applegarth Scar. Note the deep colour of the flowers.

Record Name: Walden Moor. Cotton grass on a fine day.

SWAAG ID Number: 739

Recorded Date: 2013-07-21 19:57:39

Recorded by: Tim Laurie

Category: Flower / Plant Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-07-19

Location: Walden Moor

Civil Parish: Bishopdale

British National Grid: SD 984 795

Altitude: 500m

Geology: Edge of blanket peat.

Description: Cotton grasses (*Eriophorum angustifolium* and *E.vaginatum*) are one of the main peat forming plants and were very fine when seen in flower on peat moorland above Walden Head recently.

Dimensions: N/A see photos

Additional Notes: Juniper has been recognised below shallow blanket peat at the head of Fosse Gill on the western side of Walden Moor but the remains of birch only were seen at the base of peat at this elevation on the eastern side of Walden Moor.

Last Update: 2013-07-21

Tree Geographical Area: Wensleydale



Record Number 739 >>> Image 1: *Eriophorum angustifolium* in flower on peat. Walden Moor . July.



Record Number 739 >>> Image 2: *Eriophorum angustifolium* in flower on peat. Walden Moor . July.



Record Number 739 >>> Image 3: *Eriophorum angustifolium* in flower on peat. Walden Moor . July.

Record Name: Walden Beck. Carboniferous coral sp. unid. Similar to *Amplexus coralloides* but larger diameter.

SWAAG ID Number: 740

Recorded Date: 2013-07-21 20:29:25

Recorded by: Tim Laurie

Category: Geological Record

Record Type: Geological HER

Site Access: Public Access Land

Record Date: 2013-07-19

Location: Walden Beck

Civil Parish: Bishopdale

British National Grid: SD 979 794

Altitude: 400m

Geology: Five yard limestone. Fossiliferous limestone as bed of the stream and boulders in stream bed.

Description: Carboniferous coral sp. unid. Similar to *Amplexus coralloides* but larger.

Reference: British Palaeozoic Fossils Second Ed. 1966.London.

Dimensions: See photographs

Additional Notes: Other fossils here include *Productus* and single corals in the limestone of the stream bed, see photos

Last Update: 2013-07-22



Record Number 740 >>> Image 1: Carboniferous coral sp. unid. Similar to *Amplexus coralloides* but larger.



Record Number 740 >>> Image 2:



Record Number 740 >>> Image 3: Productus in limestone boulder.



Record Number 740 >>> Image 4: Productus shells sectioned by the stream



Record Number 740 >>> Image 5: An unidentified coral in the limestone.

Record Name: Walden. Round house settlement below Crag Brea with associated enclosures with well preserved wall passage feature.

SWAAG ID Number: 741

Recorded Date: 2013-07-22 17:31:57

Recorded by: Tim Laurie

Category: Settlement

Record Type: Archaeology

Site Access: Public Access Land

Record Date: 2013-07-19

Location: Walden Head. Walden Moor. Terrace below Crag Brea

Civil Parish: Bishopdale

British National Grid: SD 990 804

Altitude: 432m

Geology: Kame terrace below the Underset Limestone.

Description: Round house settlement on kame terrace below Crag Brea with associated enclosures with well preserved wall passage feature. This settlement is well preserved in spite of the fact that a large modern sheep fold directly overlies the settlement and has been built from stone obtained from the settlement enclosure and wall passage feature walls.

The wall passage feature is attached to the western side of a large stone walled enclosure and has been reduced by stone taken for the later sheepfold, however the two orthostatic wall faces are intact at and below ground level together with some of the dry stone walling. The end walls of the wall passage are masked by tumble.

The best of the few hut circles is located at the western limit of the settlement enclosures, at SD9882080292,444m. Several small hut circles and a row of features which may be collapsed beehive structures are incorporated within the substantial stone enclosure walls, at SD9889580340.

Dimensions: 160m in length from SD9897980396 to SD9882080292

Additional Notes: This settlement together with the overlying sheep fold suggest that this terrace has been in continuous use for seasonal, transhumant sheep management and foddering for millennia.

Wall passage features are generally 1.2m wide with faced dry stone walls which were most probably roofed with timbers and turf coverings. If so they could have served the purpose of cold storage for cheese or for dried and smoke cured meat products, and for protection from wolves, foxes and inclement weather. Wall passages are associated, in the Pennine Uplands with shieling settlements of late Iron Age, Native Roman and pre-Conquest date, as at Greenber Edge above Bainbridge (Blood and Cater, 1996).

This settlement can be seen on Google Earth.

The superficially similar round house settlement also on the southern side of Walden, above Whitrow Farm some 3km to the NE and located at 400m elevation below Dove Scar is associated with an open group of three burnt mounds, see SWAAG Database Site No. The burnt mounds at Whitrow Farm may far predate the enclosures but they do indicate continuity of pastoral activity on the Pennine Fringe from the Late Neolithic onwards.

References:

Keith Blood and Derek Cater 1996. 'Settlements at Greenber Edge'. RCHME Archaeological Survey Report on NMR nos:SD98NE1,6,201-4

Last Update: 2013-07-23



Record Number 741 >>> Image 1: View westward towards the settlement and modern sheepfold below Crag Brea.



Record Number 741 >>> Image 2: The approach to the settlement



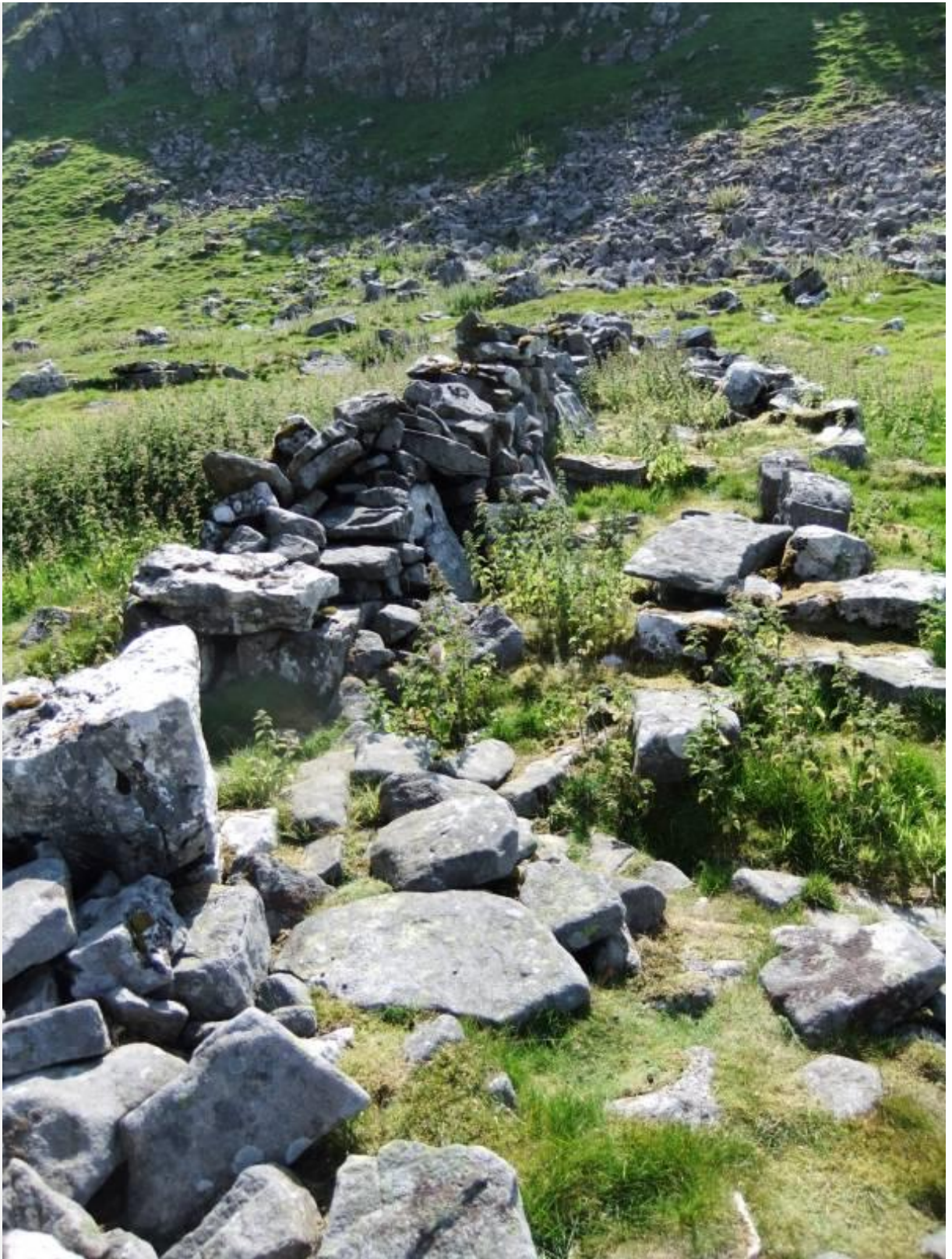
Record Number 741 >>> Image 3: Round house at western limit of the settlement enclosures



Record Number 741 >>> Image 4: The wall passage feature and stone wall enclosure.



Record Number 741 >>> Image 5: The wall passage feature



Record Number 741 >>> Image 6: The wall passage feature



Record Number 741 >>> Image 7: The wall passage feature



Record Number 741 >>> Image 8: The wall passage feature



Record Number 741 >>> Image 9: Round house.



Record Number 741 >>> Image 10: The enclosure walls are heavily quarried close to the modern sheepfold, but can be discerned.



Record Number 741 >>> Image 11: The settlement terrace below Crag Brea from the SE.



Record Number 741 >>> Image 12: A small trackway and hollow way leads upto the one and only gap in Crag Brea which provides access from the western limit of the settlement up to the moorland plateau above.

Record Name: Walden. Whitrow Farm. Three burnt mounds Sites 1-3 and round house settlement below Dove Scar

SWAAG ID Number: 742

Recorded Date: 2013-07-24 16:51:14

Recorded by: Tim Laurie

Category: Burnt Mound

Record Type: Archaeology

Site Access: Public Access Land

Record Date: 0000-00-00

Location: Whitrow Farm

Civil Parish: Burton cum Walden

British National Grid: SE 01821 88581

Altitude: 1164ft

Geology: Glacial till over 3yard limestone. Bank of stream.

Description: Site 1 is a very large burnt mound on west bank of stream. This site is the central of a group of three burnt mounds recorded on the Dale Pastures above Whitrow Farm.

Sites 2 and 3 are each large burnt mounds at springs further upslope, at SE 01823 88581,380m elevation and at SE01821 88581, 380m elevation respectively.

These three burnt mounds and the round house settlement below Dove Scar are ,together with the round house settlement recently recorded below Crag Rea above Walden Head on the SWAAG Database,good examples of Later Prehistoric seasonal, pastoral settlement at springs on the Pennine Fringe.

Dimensions: 15m\*10m\*1.2m high (Site 1) other sites slightly smaller.

Additional Notes: Hut circle and enclosures below Dove Scar some 400m to the west of Site 2.

Last Update: 2013-07-27



Record Number 742 >>> Image 1: Walden. Whitrow Farm Burnt Mound Site 1. One of three burnt mounds in the pastures above Whitrow Farm



Record Number 742 >>> Image 2: Walden. Whitrow Farm Burnt Mound Site 1 as viewed from the north towards West Burton. Lowest and central of open group of three burnt mounds in the pastures above Whitrow Farm.



Record Number 742 >>> Image 3: Walden. Whitrow Farm Burnt Mound Site 2. Northern of three burnt mounds in the pastures above Whitrow Farm.



Record Number 742 >>> Image 4: Walden. Whitrow Farm 3. Southern of the three burnt mounds at separate spring streams above Whitrow Farm



Record Number 742 >>> Image 5: Walden. Dove Scar. Round house settlement on kame terrace below Dove Scar. This settlement extends southward beyond the Dry Stone wall which crosses the terrace.



Record Number 742 >>> Image 6: Walden. Dove Scar. Round house settlement on kame terrace below Dove Scar. This settlement extends southward beyond the Dry Stone wall which crosses the terrace.

Record Name: A walk by SWAAG Members along Sleightholme Beck above The Trough to East Mellwaters Farm and return by Trough Heads.

SWAAG ID Number: 743

Recorded Date: 2013-08-01 15:17:35

Recorded by: Tim Laurie

Category: Geographical Record

Record Type: General HER

Site Access: Public Access Land

Record Date: 2013-07-28

Location: Sleightholme Beck

Civil Parish: Not known

British National Grid:

Geology: Glacially enlarged stream valley with cliff exposures of the Main Chert Series and narrow stream gorge enlarged by meltwater through the Main Limestone.

Description: This is a photographic record, with minimal comment of a walk by SWAAG Members on a fine July Day along Sleightholme Beck above The Trough to East Mellwaters Farm and return by Trough Heads.

Please refer to previous SWAAG Database Records for the archaeological and geological sites seen during this walk.

Dimensions: See photos

Additional Notes: See photo captions.

Last Update: 2013-08-01



Record Number 743 >>> Image 1: SWAAG Members at The Trough, Sleightholme Beck. After lunch.



Record Number 743 >>> Image 2: Sleightholme Bog Scar. Faulted Namurian sandstones, mudstones and shales are well exposed in this cliff.



Record Number 743 >>> Image 3: John in full geological flight.



Record Number 743 >>> Image 4: The footbridge taking the Pennine Way across Sleightholme Beck.



Record Number 743 >>> Image 5: Remains of a barn beside the Pennine Way.



Record Number 743 >>> Image 6: Glacially enlarged ravine of Sleghtholme Beck. The line of this stream is controlled by the fault seen in Bog Scar.



Record Number 743 >>> Image 7: Aspens, Rowans, Downy Birch and Sallows on a small cliff.



Record Number 743 >>> Image 8: The Trough with Sleightholme Beck in spate.



Record Number 743 >>> Image 9: Lunch by the limestone ravine or gorge. I forget which it is, where is my notebook?



Record Number 743 >>> Image 10: The river in spate.



Record Number 743 >>> Image 11: The way down to East Mellwaters.



Record Number 743 >>> Image 12: John explains the relationship between the light refraction through the Calcite Crystal and the development of the compound eye of the trilobite.



Record Number 743 >>> Image 13: John explains to an incredulous but rapt audience that the human skeleton is descended from the ability of a trilobite to evolve an external shell by covering its tiny pink

defenceless body with one of the most unexpected substances, whose name I care not to mention.



Record Number 743 >>> Image 14: At last, here they are!



Record Number 743 >>> Image 15: The last of the Trilobites, very small and just the tripartite tail sections survive.



Record Number 743 >>> Image 16: View upstream to the Trough



Record Number 743 >>> Image 17: Lime trees



Record Number 743 >>> Image 18: Native enclosed round house settlement at East Mellwaters. The 3m wide enclosing bank quarried out for the construction of an overlying sheepfold.



Record Number 743 >>> Image 19: The curvilinear stone bank encloses three round houses and several ancillary huts.



Record Number 743 >>> Image 20: The largest round house is flanked by two smaller round houses, see survey report and plan. Durham Archaeological Journal, 1. 1984 pp35-39.

# DURHAM ARCHAEOLOGICAL JOURNAL

Volume 1



1984

Record Number 743 >>> Image 21: Ab Enclosed Settlement near East Mellwaters Farm, Bowd, Co Durham. Durham Arch. Journal Volume 1. 1984 pp35-39

## AN ENCLOSED SETTLEMENT NEAR EAST MELLWATERS FARM, BOWES, CO. DURHAM

by T. Laurie

### THE SITE (fig. 1, pl. 1)

East Mellwaters Farm lies approximately 1½ miles (2½km) west of Bowes on high ground (950', 288m O.D.) between the confluence of the River Greta and Sleightholme Beck. The settlement here described (NY 9685 1245) is situated on level pasture forming the valley floor some 30m south of Sleightholme Beck and 400m below the point where Sleightholme Beck leaves the limestone ravine known as the Trough. The settlement is 0.5 km south of the Roman Road (A66) between Bowes, Stainmore and Brough and 2.5 km west of the fort at Bowes.

The settlement was protected by a rock-faced enclosing wall now visible as a bank of stones which has a maximum width of 1.1m and a maximum height of 1.2m. Occasional orthostats remain to define the outer base courses of the wall 3.5m apart - the original thickness of the wall. Two narrow entrances through the wall can be recognised on the northern and southern perimeter. An eastern entrance is also probable although partly robbed out.

Reference to Section BB will show that with no allowance for robbing (and very considerable removal of stone has taken place on this site) sufficient material remains in the bank to account for an original height of 2m for an original wall width of 3.5m. This massive wall enclosed an elliptoid (sub-circular) area measuring 45m on the longer (east-west) axis and 38m on the shorter (north-south) axis.

The western half of the enclosed area is occupied by a multiple-roomed or hatted homestead comprising a large central hut circular in form, 9.5m in internal diameter with an eastern entrance. This central hut is flanked by two circular huts 6.5m and 6m in internal diameter. Other possible huts or interconnected rooms irregular in form and situated in the area between these three huts and the enclosing wall are indicated by low banks.

The ground level of the interior of the central hut is considerably (0.6m) higher than the surrounding ground. This may indicate a build-up of occupation or collapse debris. The general level of ground outside the southern perimeter of the enclosure is 1.38m above general ground level within the enclosure - an indication that cutting and levelling has taken place here.

The remains of ancillary huts can be seen adjacent to this southern perimeter although the face of the retaining wall which formed the rear wall of these huts has been robbed out and the line of the original wall is

obscured by tumble here. However, the orthostats shown on the plan do indicate the two faces of the wall.

The modern sheep-fold, L-shaped in plan, which has been built across the settlement, appears to have been constructed from material robbed from the enclosing wall. At any rate the settlement wall has been totally robbed out for a considerable width adjacent to the sheep-fold.

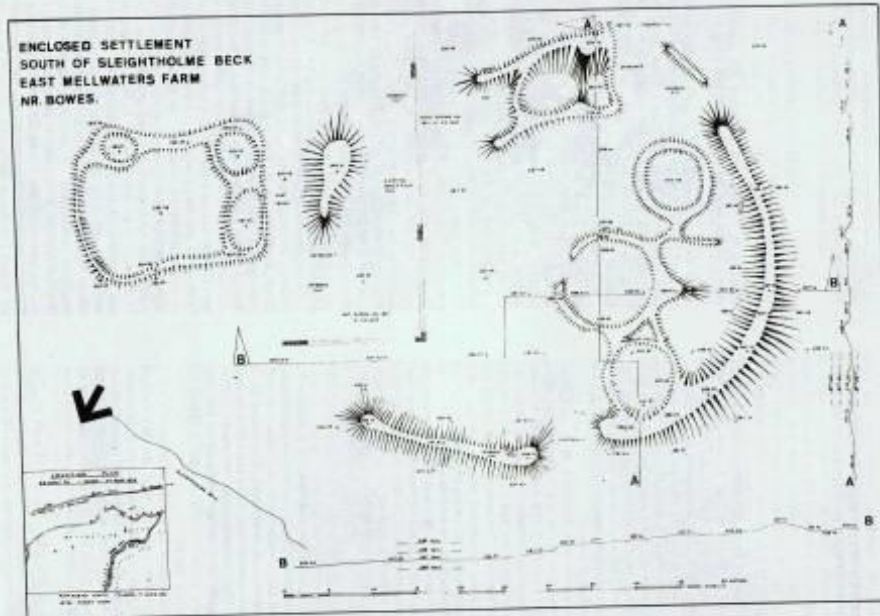
It is interesting to note that the settlement is shown on O.S. Sheet Y11, 6" to 1 mile - 1857 Edition, but has not apparently been recognised as such since. The sheep-fold is not shown on this map which does, however, show the complete settlement before the robbing of stone for the wall. Huts not now visible are shown adjacent to the eastern perimeter.

The entrance to the large central hut faces east towards the main entrance through the enclosing wall which was surely also in the centre of the eastern perimeter. This entrance is now robbed out except for the southern wall which is marked by a 'base' course which remains undisturbed. A cart track now separates the main settlement from the smaller rectangular enclosure to the East. This small enclosure possessed two circular huts at the western end and one small circular hut near the south-east corner.

### DISCUSSION

The settlement at East Mellwaters should in the first instance be compared with the two settlements at Force Garth dated to the mid-1st and mid-2nd centuries A.D. and to the unexcavated settlement near Wynch Bridge - all in Upper Teesdale.<sup>1</sup> These three settlements are all situated in non-defensive positions near streams and are protected with sub-circular stone banks. The material available in Upper Teesdale is rounded boulders of Whin Sill, the nature of which imposes limitations of height of construction.

Enclosed settlements are not common in Co. Durham, even in upland areas.<sup>2</sup> In Northumberland and Cumbria on the other hand, similar enclosed settlements are very numerous and widespread.<sup>3</sup> While sharing many features of internal form with the rectilinear settlements of the Roman period in Northumberland, whose distribution is concentrated on the valleys of the North Tyne and Wansbeck Rivers,<sup>4</sup> it is clear that this site is more comparable with the mainly curvilinear enclosed settlements of Northumberland.<sup>5</sup>



Record Number 743 >>> Image 23: Survey Plan



Plate 1. View of the enclosed settlement at East Mellwaters Farm from the south-east.

Jobey has suggested<sup>4</sup> that the slightly more formal nature of the rectilinear settlements of South Northumberland is due to local Roman influence. Enforced or encouraged settlement in this area of Northumberland can be inferred but not proved. The settlement at East Mellwaters does not reveal any such influence of form.

Characteristics shared in common with the Northumberland sites are as follows:-

1. Location chosen for shelter and comfort rather than from considerations of defence - an expression of confidence in the security of the times - *Pax Romana* - perhaps?
2. Orthostatic construction of the main enclosure wall.
3. A slight outer ditch (see Section BB).
4. A depressed area or yard in front of the main dwelling.

5. Use of the area between the rear of the huts and the enclosure wall.

6. The main entrance to the settlement is in the centre of the eastern perimeter as is the entrance to the dwelling. It is probable that a central flagged roadway exists from the main dwelling to the central entrance - flagged paving is visible where cattle have removed topsoil next to the sheep-fold.

7. The enclosed area appears to have been excavated on the southern side and was possibly levelled on the northern side. The settlement is in fact a 'scooped' enclosure although situated on gently sloping ground.

Lastly East Mellwaters should be compared with those settlements usually described as Romano-British which are included in the Royal Commission's Inventory of the Historical Monuments in Westmorland (1936). On the whole the settlements in

the Eden Valley and centred on Nateby, Crosby Garrett, Asby and Crosby Ravensworth are correctly described as village settlements rather than homesteads. All are undefended although often in defensible situations; all are constructed with orthostatic walling. The sub-circular enclosed settlement known as Castle Hill, 2¼ miles south-east of Dufton, is very similar in size and form although ditched and embanked rather than walled. Here a quern of Romano-British type was found.<sup>7</sup>

Further west, in the Lake District, homesteads similar to East Mellwaters are frequently sited at the extreme upper level of the radiating valleys – as at Kentmere, Hartsop and in Bannerdale above Martindale. These remote settlements, as at Mellwaters and at Force Garth, may indicate a Native preference for isolation or for discreet locations as an alternative form of defence.

Having noted the affinity of East Mellwaters with the enclosed settlements of Upper Teesdale, Northumberland and the Eden Valley, the known settlements in the Middle Tees Valley and to the South in Swaledale and Wensleydale provide a contrast. At Cotherstone and at Ovington settlements defended by strong dykes are sited on the edge of the ravine above the Tees. In both Swaledale and in Wensleydale small settlements occupy defensible situations on moraine hillocks. Large unenclosed village settlements are situated on remote terraces high above the valleys of the Tees, Swale and Ure immediately below the uppermost north-facing scars – situations seemingly chosen for reasons of discretion.

Castlesteads above Dalton, 10 km south-east of Barnard Castle, is the only real hill-fort (promontory fort) in the area. This superb camp, high above the confluence of two streams and defended by ditch, berm and stone faced rampart on all sides, together with separate, similar, linear earthworks across the level ground to the south, provides a worthy satellite to Stanwick Camp a few miles to the north. No date for Castlesteads is available and it may be earlier rather than later Iron Age in date.

Evidence for a stock-raising economy at East Mellwaters may be provided by a double ditched enclosure on the edge of the ravine at NY 9670 1225. This enclosure, if contemporary, would indicate that protection of stock was an important consideration.

In view of the certain knowledge that throughout historic times Stainmore has formed a strategic route and, in the earlier historic period, a frontier area, it may seem surprising that such a substantial homestead could have been located at East Mellwaters in the later prehistoric or Roman period with no apparent regard for defensive considerations. Since circular huts with stone foundations and substantial enclosing walls are often attributed to the 1st or 2nd centuries A.D., it is not unreasonable to suggest that the necessary protection to this homestead was Roman and was provided from Bowes

– 1½ miles distant. The comparative lack of evidence for agriculture or extensive stock raising in the form of stock grazing boundaries in the vicinity can be explained by later clearance and improvement of pasture.

Recent work by Alison Donaldson on the pollen analysis of peat deposits at two sites, one 10km to the west on Stainmore (NY 8711 130, 400m O.D.) and the other 10km north east at Moss Mire (NZ 025 213, 295m O.D.) both indicate large scale clearance of primary birch-alder woodland at an Early Iron Age date. At Stainmore this clearance has been carbon-dated to 530 ± 70 b.c. (HAR-2689). This early clearance of the higher ground on Stainmore was followed by pastoral use and the area has remained free of woodland to the present day. Pollen from the Iron Age horizon at Moss Mire, which is situated near the River Tees at the same altitude as East Mellwaters, is dominated by herbs including agricultural indicators, with cereals appearing before a return to woodland, carbon-dated here to a.d. 400 ± 90.

Thus, on the basis of available environmental evidence, it seems probable that the farm economy at East Mellwaters was mainly pastoral but with some arable land including the production of cereals at a later Iron Age date.

The evidence for an early field system that may be associated with the settlement, on the better land situated between Sleightholme Beck and the River Greta, is confined to a very small unploughed paddock near the modern farm. Elsewhere between the two rivers early field boundaries, if they existed, have been removed by later clearance. No evidence for agriculture exists on the higher, poor marsh/heath land south of Sleightholme Beck. It can be assumed that the whole of the land at present farmed at East Mellwaters between the rivers was also farmed during the period of occupation of the settlement. The early clearance of woodland on Stainmore and elsewhere in Upper Teesdale points to the pastoral occupation of this area in the Late Bronze Age or Early Iron Age, and associated settlement can be expected to exist in the area.

Enclosed settlements with round stone-founded houses have been shown to be occupied during the Roman period<sup>8</sup> and I consider that the large circular multi-roomed house and massive rock-faced enclosing wall shown on the plan should be assigned to the 1st - 4th. centuries A.D. This is not to say that the initial occupation of the site as a whole was Roman. Such settlements have been found elsewhere to overlie earlier houses of ring-ditch or timber-post construction.<sup>9</sup> Enclosing stone walls have been found to overlie earlier timber palisades adopting the earlier form dictated by the palisade.<sup>10</sup>

The floor level of the central circular house is 0.6m above surrounding ground level and this may indicate multi-period occupation of the site. An earlier timber palisade replaced by the stone enclosing wall would

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The floor level of the central circular house is 0.6m above surrounding ground level and this may indicate multi-period occupation of the site. An earlier timber palisade replaced by the stone enclosing wall would

explain the apparently early curvilinear form of the settlement.

It is hoped that publication of the plan and this description of the settlement at East Mellwaters will, together with the environmental evidence now available for this area, assist in the understanding of the Iron Age landscape of Stainmore.

This embanked (walled) site is well preserved in spite of the loss of much stone for later farm walls. The site is on a public right of way and is worth a visit since the visible foundations of the interconnected round huts or rooms do give a real insight into the form of the early British farmstead so numerous elsewhere but so scarce – at least in upstanding form – in the county of Durham.

East Mellwaters farm is on the Pennine Way (the diversion from Sleightholme to Bowes) and a visit to the site could be combined with a walk up the south side of Sleightholme Beck to visit the interesting limestone ravine known as Trough Heads.

"How Tallon"  
Barnburgham  
Richmond  
North Yorks.

#### NOTES

1. D. Coggins and K. Fairless, *Trans D & N* 5, 1980, 31-38.
2. Challis and Harding list a total of seven curvilinear enclosures in Co. Durham in *Later Prehistory from the Trent to the Tyne*, B.A.R. 20, 1975. However, it is doubtful whether any of these sites are really comparable with East Mellwaters. The only really comparable sites are Forcegarth Pasture North and South and the unexcavated settlement near Wynch Bridge – all three in Upper Teesdale.
3. Jobey has described the enclosed settlements of Northumberland in *Arch. Aeliana* 4th Series 38, 1960, 1-38; 39, 1961, 87-102; 40, 1962, 47-58; 41, 1963, 19-35 and 211-215; 42, 1964, 41-64. Very many "village" settlement plans in the Eden Valley and in the Lake District are shown in the R.C.H.M. Inventory of Historical Monuments in Westmorland (1936). Most are larger in size than East Mellwaters but are otherwise comparable. Most are assigned to the period of Roman occupation.
4. G. Jobey, *Arch. Aeliana* 4th Series 38, 1960; distribution of sites, fig 9, page 18.
5. G. Jobey, *Arch. Aeliana* 4th Series 42, 1964, distribution of sites, fig 1, page 41.
6. *Arch. Aeliana* 4th Series 42, 1964, 61.
7. R.C.H.M. *Westmorland*, 1936, 94-5.
8. Enclosed settlements with round, stone-founded houses have been shown by direct evidence from excavation to have been occupied during the Roman occupation at :-
  - a) Forcegarth Pasture, North and South, Coggins and Fairless, *op. cit.*
  - b) Hetha Burn 1, Hethpool, Northumberland – C.B. Burgess *Trans. D & N* 2, 1970, 1-26.
  - c) Towers Knowe, Wellhaugh, Northumberland – G. Jobey, *Arch. Aeliana* 5th Series 1, 1973, 55-79.The later occupation of enclosed settlements with round stone-founded houses, whether scooped, curvilinear or rectangular in form in Northumberland, has been assigned generally to the Roman Period although the initial occupation of these sites has been proved in many instances by excavation to be of circular dwellings wholly of timber construction. Evidence for this earlier occupation has been found to exist in the form of post-holes and ring-ditches which underlie the stone-founded houses.

9. e.g. Forcegarth Pasture, South – information provided by Mr D. Coggins; Hetha Burn 1, *op. cit.* 12 and notes 13 and 14; Tower Knowe, *op. cit.*; Hartburn – G. Jobey, *Arch. Aeliana* 5th Series 1, 1973, 11-53. Here, initial occupation of the site could have been as early as the 5th or 6th centuries B.C. with a minimum of twelve replacement phases on the permissible groupings of round timber-built houses marked by construction trenches – leading to final occupation in the second and possibly third century A.D.
10. Tower Knowe, *op. cit.* This settlement, although rectangular in form, otherwise bears a close resemblance to East Mellwaters. The enclosing stone wall of orthostat construction, 1.5 - 2.0m thick, was found to overlie a well-marked timber palisade-slot. The palisade was replaced by the stone wall with no significant interval of time, both phases were dated to the Roman occupation. The arrangement of three round stone houses at Tower Knowe is very similar to East Mellwaters; this last stage of occupation was preceded by two replacement phases of round timber-built houses.

Record Name: The Rollinson Gill Colliery which at 620-635m elevation is probably the highest Colliery in Britain!

SWAAG ID Number: 744

Recorded Date: 2013-08-15 14:13:41

Recorded by: Tim Laurie

Category: Mining Related

Record Type: Mining

Site Access: Public Access Land

Record Date: 2013-08-11

Location: Nine Standards. Rollinson Gill Head

Civil Parish: Muker

British National Grid: NY 822 057

Altitude: 636m

Geology: Upper Carboniferous, Namurian (Pendleian) Strata at edge of the Pennine Escarpment. Mirk Fell Ganister (with coal) and Howgate Edge Grit. Overlain with eroded 2m deep blanket peat hag (up to 5m deep at Backstone Beck Head).

Description: Shaft mounds marking the site of the Rollinson Gill Colliery which are spaced at intervals close to Rollinson Gill from around 620m elevation up to the peat hags on the plateau at 637m.

Dimensions: See photos

Additional Notes: The shaft mounds are well vegetated except for the uppermost shaft which has eroded to reveal the shale and coal upcast composition of the mound.

The coal is very like shale, see photo image, and was probably only suitable for burning limestone in limekilns. A great number of coalpit shaft mounds are located on Great Edge above Nateby at 430m which is far below the Main Limestone on the Westmoreland side of the escarpment.

The track up to Rollinson Gill Head is a very well built cobbled roadway suitable for horse and cart.

Last Update: 2013-08-15



Record Number 744 >>> Image 1: View north-westward across the Vale of Eden to the Pennine Escarpment and Cross Fell from the coal road up to Rollinson Gill Head.



Record Number 744 >>> Image 2: Coal pit shaft at Rollinson Gill Head, 643m elevation.



Record Number 744 >>> Image 3: Coal pit shaft at Rollinson Gill Head, 643m elevation.



Record Number 744 >>> Image 4: Coal fragment in the eroded shaft mound.



Record Number 744 >>> Image 5: Coal pit shaft and blanket peat. Dukerdale Head far below.



Record Number 744 >>> Image 6: Coal pit shaft mound lower down Rollinson Gill.



Record Number 744 >>> Image 7: Coal pit shaft mound at the top of Rollinson Gill.



Record Number 744 >>> Image 8: Coal pit shaft mound at the top of Rollinson Gill. View to the Howgill Fells.



Record Number 744 >>> Image 9: View from the coal road towards Mallerstang Edge, Wild Boar Fell and down to the road from Keld to Nateby.



Record Number 744 >>> Image 10: Eroding peat hag with cotton grass at the head of Rollinson Gill.

Record Name: Prominent round cairn at Jack Standards.

SWAAG ID Number: 745

Recorded Date: 2013-08-19 17:11:07

Recorded by: Tim Laurie

Category: Burial Mounds and Cairns

Record Type: Archaeology

Site Access: Public Access Land

Record Date: 2013-08-10

Location: Jack Standards.

Civil Parish: Not known

British National Grid: NY 822 054

Altitude: 635m

Geology: Namurian strata. Lower Howgate Edge Grit.

Description: This loosely constructed round cairn has been described by Andrew Fleming (Fleming, 1998, Figure 8.2) as a probable Bronze Age cairn and the fact that this cairn occupies such a fine location overlooking the Vale of Eden and Mallerstang where several similar Bronze Age monuments testify to Bronze Age activity, lends weight to this interpretation.

The cairn itself is surmounted by the usual stone 'man' -the much smaller modern structure used to mark a pathway from the lower dale to the high moorland.

Dimensions: See photos

Additional Notes: Bronze Age Burial Cairns at higher elevations in the NE Pennine Dales are always built of limestone as for example How Tallon cairn on Barningham Moor or sandstone rock as for example the cup marked cairn on Addlebrough and Stony Raise Cairn on Greenber Edge in Bainbridge Parish, Wensleydale.

Earthen round barrows are usually small and steep sided and recognisably man made.

Larger earthen elongated mounds are often mistaken as burial mounds, but on examination the unsorted glacial clays, sands and gravel composition betrays their glacial origin.

Last Update: 2013-08-19



Record Number 745 >>> Image 1: Round cairn at Jack Standards.



Record Number 745 >>> Image 2: View of the cairn from the moorland to the east.



Record Number 745 >>> Image 3: View from the cairn westward.



Record Number 745 >>> Image 4: View from the cairn down to Mallerstang Edge and the road from Keld to Nateby and Kirby Stephen



Record Number 745 >>> Image 5: The cairn and view westward.

Record Name: High Dukerdale Scars, eastern side..Open cast lead working, shaft mounds and associated lead bale.

SWAAG ID Number: 746

Recorded Date: 2013-08-20 14:34:32

Recorded by: Tim Laurie

Category: Mining Related

Record Type: Mining

Site Access: Public Access Land

Record Date: 2013-08-18

Location: High Dukerdale, Winton Parish. Westmoreland

Civil Parish: Not known

British National Grid: NY 81346 05332

Altitude: 518m

Geology: Open cast lead workings with shaft mounds on the outcrop of faulted Main Limestone.

Description: This lead mine is not identified on 1:25000 OS Map Sheet OL18. The open cast lead mine is visible as a prominent 'hush' or rock cut trench at the upper edge of the sheer limestone cliff or scar which forms the eastern side of High Dukerdale. At the top of the open cast hush are three shaft mounds.

Various strings leading from the hush have been worked from the surface.

Most significantly, a circular erosion patch on the southern edge of the 'hush' has fragments of galena lead ore and a small amount of yellow lead slag usually detected as 'splashes' on small fragments of limestone (see photo \*\*). The presence of the slag denotes smelting and the existence of a bale directly associated with the lead mine here.

A careful search revealed the existence of a level driven into the side of the gill directly below the open cast hush. The spoil heap below the hush can be seen on the attached photos.

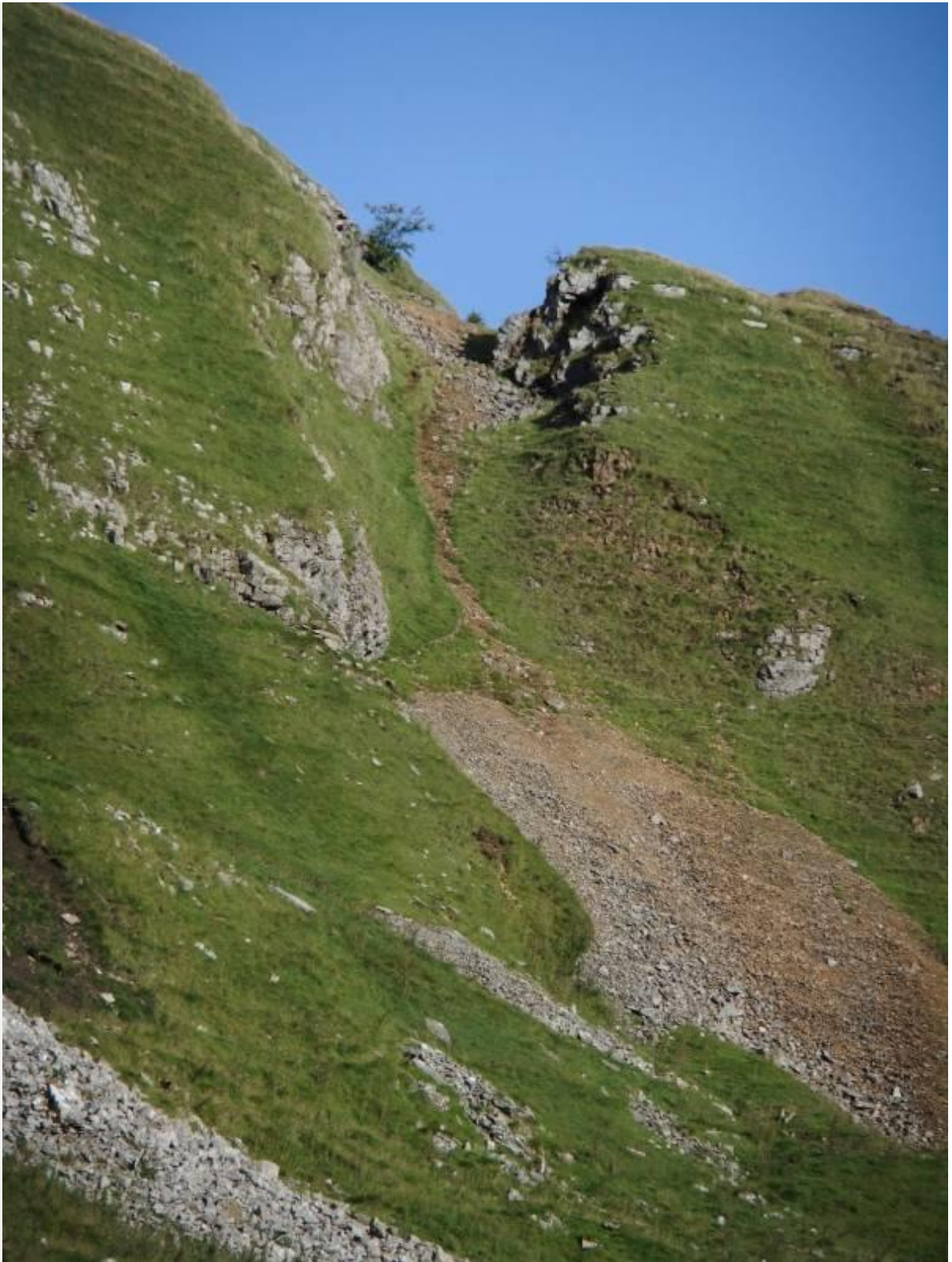
The lead vein is just one of a series of faults, all of which except this 'hush' are not mineralised, visible in the the face of the Main Limestone Scar at the top edge of High Dukerdale.

Dimensions: See photofile

Last Update: 2013-08-20



Record Number 746 >>> Image 1: The High Dukerdale Lead Mine from the South West. Hush and bale visible.



Record Number 746 >>> Image 2: The High Dukerdale Lead Mine from the South West. Open cast hush in face of the cliff.



Record Number 746 >>> Image 3: Open cast hush.



Record Number 746 >>> Image 4: The uppermost of three shaft mounds



Record Number 746 >>> Image 5: High Dukerdale Head from the open cast Hush.



Record Number 746 >>> Image 6: Lead Bale



Record Number 746 >>> Image 7: Galena.



Record Number 746 >>> Image 8: Galena and slag



Record Number 746 >>> Image 9: Shaft mounds above the open cast hush.

Record Name: Juniper scrub at base of 2-4m deep peat in sike at southern end of Nine Standards Rigg.

SWAAG ID Number: 747

Recorded Date: 2013-08-21 11:04:33

Recorded by: Tim Laurie

Category: Geological Record

Record Type: Archaeology

Site Access: Public Access Land

Record Date: 2013-08-17

Location: Nine Standards Rigg. Rollinson Head.

Civil Parish: Muker

British National Grid: NY 82736 05784

Altitude: 643m

Geology: Blanket peat 2-5m deep over Namurian sandstones (Pickerstone Edge Grit).

Description: Sike at southern end of Nine Standards Rigg. Massed remains of Juniper Scrub at base of 2-4m deep peat with stunted birch at higher levels in the peat face.

Dimensions: See photographs

Additional Notes: This identification of juniper with stunted birch below deep blanket peat at 643m Elevation which is at the limit of streams feeding Whitsundale Beck below Nine Standards Rigg, together with similar juniper remains with birch well above 600m elevation in Lodge Hags at Uldale Gill Hags points to the existence during the early post glacial period of widespread juniper scrub on the highest ground on the Swale-Eden Interfluve.

The remains of Scots Pine with birch are present below blanket peat at lower elevations on Birkdale Common.

Last Update: 2013-08-21



Record Number 747 >>> Image 1: Deep blanket peat with remains of juniper at the base and with stunted birch at two further upper levels.



Record Number 747 >>> Image 2:



Record Number 747 >>> Image 3:



Record Number 747 >>> Image 4:

Record Name: Arndale Gill. Small tortoiseshell and Small Copper Butterflies

SWAAG ID Number: 748

Recorded Date: 2013-08-24 17:45:27

Recorded by: Tim Laurie

Category: Fauna

Record Type: Fauna HER

Site Access: Public Access Land

Record Date: 2013-08-22

Location: Arndale Gill

Civil Parish: Barningham

British National Grid: NZ 042 065

Altitude: 415m

Geology: Heather moorland plateau above stream cut ravine. Chert strata above the Main Limestone

Description: In a year when butterfly sightings are all too infrequent the sight of numbers of Peacock, Tortoiseshell and Small Copper Butterflies on the wing above Arndale Gill when the heather was at its best, was a consolation.

Last Update: 2013-08-25



Record Number 748 >>> Image 1: Small Copper butterfly resting after a dizzy fight with a rival



Record Number 748 >>> Image 2: Small Tortoiseshell on heather.

Record Name: Netherhearth lead vein complex and bale at Rough Sike, Moor House.

SWAAG ID Number: 749

Recorded Date: 2013-08-25 13:37:32

Recorded by: Tim Laurie

Category: Mining Related

Record Type: Mining

Site Access: Public Access Land

Record Date: 2013-08-23

Location: Moor House National Nature Reserve. Rough Sike.

Civil Parish: Forest and Frith

British National Grid: NY 756 328

Altitude: 550m

Geology: 'Netherhearth Veins: Around the headquarters at Moor House, a complex of intersecting E-W, NNW and ENE Veins were worked from shallow shafts, open cuts and adits.'

Source: The Geology of Moor House.' Monographs of the Nature Conservancy No 2, page 101.

Description: Lead vein 450mm wide clearly visible as very dark brown igneous dike which contrasts with the grey limestone (the Tyne Bottom Limestone) where the vein crosses the bed of Rough Sike. One of two similar vein exposures here. This lead vein has been worked on the eastern side of the stream where lead slag marks the site of a probable Lead Bale.

This records a rare instance of an unworked lead vein visible in the stream bed of Rough Sike.

Additional Notes: The minerals present include purple fluorite, quartz, calcite, galena and sphalerite (zinc blende).

The extensive surface workings and numerous lead bales on this vein complex will be the subject of a separate record.

Further photographic details of the mining remains in this area are recorded as SWAAG Record No 750.

Last Update: 2013-08-26



Record Number 749 >>> Image 1: Lead vein 450mm wide clearly visible as very dark brown igneous dike which contrasts with the grey limestone where the vein crosses the bed of Rough Sike.



Record Number 749 >>> Image 2: Lead vein 450mm wide clearly visible as very dark brown igneous dike which contrasts with the grey limestone where the vein crosses the bed of Rough Sike.



Record Number 749 >>> Image 3: Lead vein 450mm wide clearly visible as very dark brown igneous dike which contrasts with the grey limestone where the vein crosses the bed of Rough Sike.

Record Name: Netherhearth lead vein complex and bale, Part Two: mining remains and Bales at Moss Beck, Moor House.

SWAAG ID Number: 750

Recorded Date: 2013-08-26 16:32:30

Recorded by: Tim Laurie

Category: Mining Related

Record Type: Mining

Site Access: Not known

Record Date: 2013-08-22

Location: Moor House National Nature Reserve

Civil Parish: Forest and Frith

British National Grid: NY 755 327

Altitude: 550m

Geology: 'Netherhearth Veins: Around the headquarters at Moor House, a complex of intersecting E-W, NNW and ENE Veins were worked from shallow shafts, open cuts and adits.'

Source: 'The Geology of Moor House.' Monographs of the Nature Conservancy No 2, page 101.

The lead veins are worked in the Lower Tyne Bottom Limestone which forms the bed of the Moss Burn here.

Description: Early mining remains close to Moss Beck above the confluence with Rough Beck include shallow open cast workings on lead veins, a shaft and several circular patches free of vegetation with lead slag and partly burnt ore which are likely to mark the location of early Bale Smelting Sites.

Last Update: 2013-08-26



Record Number 750 >>> Image 1: Moss Burn. View upstream with shallow lead workings on LH Bank. Dun Fell in distance. The lead veins are worked in the Lower Tyne Bottom Limestone which forms the bed of the Moss Burn here.



Record Number 750 >>> Image 2: Shaft mound. The vein rock is very dense blue-black rock with yellow fluorite crystals and galena strings.



Record Number 750 >>> Image 3: Yellow fluorite crystals on vein rock.



Record Number 750 >>> Image 4: Vein rock with galena string.



Record Number 750 >>> Image 5: Large Bale smelting area with slag and part burnt lead ore.



Record Number 750 >>> Image 6: Unburnt vein rock (LH specimen) and burnt slag (RH specimen)



Record Number 750 >>> Image 7: Lead slag from bale with cavities.



Record Number 750 >>> Image 8: Detail of the surface of lead bale with Spring sandwort (*Minuartia verna*)



Record Number 750 >>> Image 9: Metalophytes on lead bale: *Thlaspi alpestre* and *Cochlearia officinalis*



Record Number 750 >>> Image 10: Mossy saxifrage (*Sax. hypnoides*) on shaft mound.

Record Name: The Common Houseleek (*Sempervivum tectorum*) naturalised in Arndale Gill, Barningham Moor.

SWAAG ID Number: 751

Recorded Date: 2013-08-28 12:18:03

Recorded by: Tim Laurie

Category: Flower / Plant Record

Record Type: Botanical HER

Site Access: Public Access Land

Record Date: 2013-08-24

Location: Arndale Beck

Civil Parish: Barningham

British National Grid: NZ 04275 06368

Altitude: 415m

Geology: Richmond cherts.

Description: I can record that this the Common Houseleek (*Sempervivum tectorum*) has been naturalised at this low cliff on the northern side of Arndale Gill on Barningham High Moor for more than thirty years. I remember that this plant to have been more extensive and originally extended horizontally for approximately 1.5 metres. It is still healthy but has diminished in size. There is no evidence for further colonising plants or regeneration on similar outcrops in the vicinity.

Dimensions: See photos

Species: Common Houseleek

Scientific Name: *Sempervivum tectorum*

Common Notable Species: *Sempervivum* spp are true alpine and are among the most attractive plants in the wild as, at high altitudes, the rosettes are stunted and brilliant red in colour.

Additional Notes: This plant readily colonises old stone slated roofs in villages and on farm buildings throughout the Dales, but usually close to the gardens from which it had escaped.

Last Update: 2013-08-28

Tree Geographical Area: Swaledale North Bank Catchment



Record Number 751 >>> Image 1: The Common Houseleek, a garden succulent whose rosettes flower then die, far from the nearest garden at Arndale Gill on Barningham High Moor.



Record Number 751 >>> Image 2: Arndale Gill, view upstream from the cliff.



Record Number 751 >>> Image 3: *Semervivum tectorum*, detail with dead rosettes and dead recent flower stem.



Record Number 751 >>> Image 4: The Common Polypody fern on the same outcrop.