

Langdale Axe Factory Survey Catalogue

2-9-1992

J.Quartermaine & P.Claris

National Trust
Estates Advisory Office
33 Sheep St.
Cirencester Glos.
GL7 1QW

Lancaster University Archaeological Unit
Physics Building
University of Lancaster
Lancs.
LA1 4YW

Langdale & Scafell Pike Axe Factory catalogues

The catalogues are shown in a reduced, fiche format in the main survey publication: Claris P and Quartermaine J, The Neolithic Quarries and axe factory sites of Great Langdale and Scafell Pike: a new field survey. Proc. Prehist. Soc. 55, 1989, pp. 1-25.

Key: Concentrations

Flake concentrations were measured in the field by counting flakes within a 0.4m x 0.4m frame and the range of flake sizes was estimated. The quantities of flakes were adjusted according to the following table:

Flake size	Original Concentration (flakes within frame)	Adjusted concentration
SML	C	$C \times 1$
M	C	$C \times 1$
ML	C	$C \times 1.6$
L	C	$C \times 2.56$
SM	C	$C / 1.6$
S	C	$C / 2.56$

A concentration code was found according to the table below from the adjusted concentrations.

Code	Concentration (flakes within frame)
1	0 - 8
2	9 - 45
3	46 - 150
4	151 - 350
5	351 -

The concentrations are shown in the catalogue in the form:

Concentration: 3 (112)

where the first figure is the code and the figure in brackets is the adjusted number of flakes within a 0.4x0.4m frame.

The concentration codes do not correspond to those used in the Langdale publication (Claris & Quartermaine, 1989), which are based upon flakes per sqm.

Site types

There are four types of site:

- a) Quarry sites
- b) sites adjacent to tuff outcrop but no evidence of quarrying.
- c) sites substantially below tuff outcrops.
- d) no direct relationship with known tuff outcrops.

These types are described in more detail in Claris and Quartermaine, 1989

Site Groups

Group	Site No.s	PRN no.
Troughton Beck	1 - 8	8600
Stake Beck I	9 - 15	8601
Stake Beck II	16 - 17	8602
North Scree	18 - 42	8603
Pike of Stickle I	43 - 45	8604
Pike of Stickle II	46 - 48	8605
Central Buttress	49 - 56	8606
Central Scree	57 - 81	8607
Top Buttress	82 - 112 195 - 207	8608
South Scree	113 - 122	8609
Middle Gully	124 - 134	8610
East Gully	135 - 142 239 - 240	8611
Thunacar Knott	143	8612
Loft Crag	144 - 147	8613
Dungeon Ghyll Force I	148 - 151	8614
Dungeon Ghyll Force II	152 - 153	8615
Harrison Stickle	154 - 165 249 - 251	8616
Harrison Central	166 - 167	8617
Harrison Path	168 - 174 224 - 230	8618
Harrison East	175 - 186	8619
Thorn Crag	187 - 189 231 - 238	8620
Stickle Path	190 - 192	8621
Stickle Tarn	193 - 194	8622
Harrison Combe	123 208 - 223	8623

Harrison Shoulder	241	8624
Loft Crag II	242	8625
Harrison Path II	243 - 248	8626
Middle Fell Track	252	8627

Langdale Neolithic Axe Factories

Updated 2-9-1992

8600 SITE NAME = TROUGHTON BECK

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 26950760 HEIGHT OD = 400m - 500m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

1 - NY 2699007620

A large concentrated scree site which has flakes emerging from an eroded peat section at the top of the site. There are higher concentrations of v.small flakes at the top and they increase in size towards the bottom of the site. There is outcropping hornstone above and below the site and though it is possible that quarrying took place at this site, the lower part of the outcrop is obscured by vegetation, so hiding any possible evidence for it. There are numerous patches of heather obscuring the site and there is natural scree to the East and West of sites 1 and 2,

Size: 35m x 10m

Concentration: 4 (320)

Flake size: Small, medium & large

2 - NY 2699007627

This is a small scree site which starts near the base of a hornstone outcrop. It is near to the flaking area of site 1, and though it appears to be independant of site 1, there is thick turf cover seperating the two areas of flaking which may obscure further flake deposits. In any case the run off from both sites merges further down the slope. The site comprises very large amounts of very small flakes at the top of the site with flakes of increasing size down towards the bottom.

Size: 26m x 5m

Concentration: 5 (646)

Flake size: Small, medium & large

Finds: H 492.6 (34)

3 - NY 2695407600

This large scree site runs down a steep slope before spilling over a cliff edge. Small flakes are found predominantly at the top of the site with medium and large flakes lower down. A considerable growth of heather obscures parts of the site. To the North is a possible independent site with very low concentrations. At the North-West edge of the site were found many rough-outs. This is possibly Houlder C site 25 at 2693 0759.

Size: 35m x 30m

Concentration: 3 (82)

Flake size: Small, medium & large

Finds: R 431.9A (27);R 431.9B (28);R 431.9C (29);R 431.10 (30);R 431.12 (32)

4 - NY 2692507646

A long narrow flake site with a few mainly medium flakes scattered on an area of natural scree.

Size: 48m x 2m

Concentration: 1 (3)

Flake size: Medium

5 - NY 2695307578

A few small and medium flakes in a narrow strip of natural scree that runs over a rock face.

Size: 15m x 1.5m
Concentration: 1 (3)
Flake size: Medium
Finds: R 430.1 (26)

6 - NY 2695307562 6;T7

Š The top of this site is on bedrock and it flows into a small gully. There is a small number of medium flakes intermingling with a predominantly natural 6m wide strip of scree.

Size: 20m x 8m
Concentration: 1 (3)
Flake size: Medium

7 - NY 2691907585

Some of this site may be run-off from site 3, but the extensive size of the site and the concentration of flakes in a small area at the top of the site (a greater concentration than at the top of the cliff) suggests that it may also be an independent flaking site. The debris runs over small crags before spilling into the Troughton Beck at the bottom. The site begins immediately below the hornstone outcrop. There are considerable amounts of vegetation obscuring the site. The site has a number of rough-outs. This is possibly Houlder C H site 88 <1> and Mayoh H C site 34 <2>.

Size: 50m x 10m
Concentration: 3 (91)
Flake size: Medium & large
Finds: R 483.1 (33)

8 - NY 2692607570

A small site starting at the base of a crag, in a heavily vegetated area. It is probably run-off from site 3. The flakes are predominantly medium in size but there are also some large ones.

Size: 10m x 1m
Concentration: 2 (13)
Flake size: Medium

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-b/Prehistoric/Neolithic/

CLAU SURVEY NO. = 1 - 8

VISITS = Mathews J, Quartermaine J, Robinson K & Hindle C/10/8/1984 & 2/9/1985

SOURCES =

<1>Pers comm//Houlder C H//Unpublished survey data/

<2> Desc text/Birmingham University Library/Mayoh H/1976/undergraduate thesis, University of Birmingham/

8601 SITE NAME = STAKE BECK

LOCAL AUTHORITY = BORROWDALE PARISH = ALLERDALE

NGR = NY 27030840 HEIGHT OD = 500m - 520m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

9 - NY 2699508463

A moderately concentrated, exposed patch of flakes on the North-facing slope of a drumlin. It is a shallow flake deposit scattered amongst rocks of differing geology. There are up to 30 fragments of unworked hornstone, which are larger than 110mm x 100mm. Below are some examples:

1) Sized: 150mm x 120mm x 60mm, this has no conchoidal fractures, just straight angular fractures.

2) Sized: 190mm x 140mm x 50mm

3) Sized: 100mm x 100mm

4) Sized: 170mm x 180mm x 60mm

Site size: c. 5m x 4m

Concentration: 3 (106)

Flake size: Small, medium & large
Finds: R

10 - NY 2701308401

An exposure of flakes in a bank just above a stream.

Size: c.1.3m x 0.5m

Concentration: 2

Flake size: Small and medium

11 - NY 2702008396

A few flakes in the stream bed. There is no worked material in situ in the sections, so they are probably washed down from nearby sites.

Concentration: 1

Flake size: Medium

12 - NY 2702308375

Here there are two very similar sites, separated by only a few metres: 12 and 12a. There are a few flakes in the stream bed, but there is nothing visible in the exposed sections and the flakes are probably washed down from nearby sites.

Concentration: 1

Flake size: Medium

13 - NY 2703208365

A few flakes in the stream bed (which is about 0.4m wide here). There are no flakes in the exposed sections, so they are probably washed down from sites further upstream.

Concentration: 1

Flake size: Medium

Finds: R

14 - NY 2703008350

An exposure of mainly medium flakes in an eroded bank, West of the stream. The flakes are stratified below humus (no peat deposit here) and above morainic material. The cutting is in the side of one of the many mounds in the vicinity. There are also a few flakes in the stream bed.

Size: c.4m across.

Concentration: 2

Flake size: Small, medium & large

15 - NY 2707808284

A few flakes are visible in the eroded bank of the stream, stratified above morainic material.

Concentration: 1

Flake size: Medium

PRN 8601

To explain the location of the type d sites far away from known outcrops there have been suggestions that the source material was transported by the Neolithic workers to these sites either as coarse rough-outs or raw hornstone <1>. But the presence of lumps of unworked hornstone at site 9 indicates that rough-outs were not transported here for finishing. Also it would seem unusual for the raw material to be carried over a kilometre from the nearest outcrop if it was then going to be left unused. Being a drumlin it would seem probable that the source material was glacial erratics from the drumlin.

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-d/Prehistoric/Neolithic/

CLAU SURVEY NO. = 9 - 15

VISITS = Claris P & Quartermaine J/13/8/1984 & 1/9/1985

SOURCES =

<1>Pers comm//Edmonds M/1986/Petrology Conference/

8602 SITE NAME = STAKE BECK

LOCAL AUTHORITY = BORROWDALE PARISH = ALLERDALE

NGR = NY 2728207965 & 2723008015 HEIGHT OD = 600m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

16 - NY 2728207965

An area of flakes has been revealed by a modern footpath cutting through the vegetation and peat. The site can be divided into three distinct areas: The higher South-Eastern area comprises heavily patinated medium flakes which display brown staining. In the centre of the site and 2m to the West of the footpath lies an area of lightly patinated small flakes. Finally the lower part of the site and 3m West of the path is an area of large flakes and cores, which are mostly heavily patinated and brown stained. These areas probably represent where different stages of the manufacture took place, i.e. coarse roughing-out and fine roughing-out. There are some flakes and a rough-out in the stream bed where the site spills into the stream.

Pollen samples have been taken by Reading University in Sept. 1985 and Sept. 1986 from the South edge of the site. The peat deposit was found to be lying directly on top of a thin layer of flakes.

In Sept. 1986 excavation of this site was undertaken by Roy Entwistle, on behalf of the Reading University project <1>. The flake material was shown to be defined by an arc of large, non-hornstone, boulders. These boulders were associated with a scatter of larger flakes and enclosed several concentrations of finer material, and overall there were five distinct piles of debitage.

Size: 12m x 5m

Concentration: 3 (41)

Flake size: Small, medium & large

Finds: R;R

17 - NY 2723008015

This is a site exposed by the modern footpath through the peat. The flakes are scattered down the path and are mainly small and medium with an occasional large one. The flakes are heavily patinated. There is a rough-out in the stream bed near to and North-West of the site. The rock beneath the peat does not seem to be hornstone.

Size: 1.5m x 19m

Concentration: 2 (8)

Flake size: Small and medium

Finds: R

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-d/Prehistoric/Neolithic/

CLAU SURVEY NO. = 16 & 17

VISITS = Claris P & Robinson K/15/6/1984 & 1/10/1985

SOURCES =

<1> Desc. text/CLAU (JQ)/Bradley R & Edmonds M/1987/Fieldwork at Great Langdale, Cumbria 1985-87: Preliminary Report/Unpublished interim/

8603 SITE NAME = NORTH SCREE

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27150720 - 27000701 HEIGHT OD = 240m - 420m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

18 - NY 2717707196

This is a small site with a high concentration of flakes, partly covered and protected from erosion by some very large boulders. It lies on the East side of a steep gully and after merging with the run-off of 19 it spills towards the gully bottom. The Western edge is not known precisely because of turf cover in the area. Underneath the boulders the concentration is large (conc.100); elsewhere water action has caused the material to run off and so the concentration is distinctly less (Conc.28). The boulders are on top of the

site and clearly came to rest later than the axe-factories.

Size: 12m x 2m

Concentration: 4 (144)

Flake size: Medium & large

19 - NY 2713307194

This is a site similar to site 18. There are large concentrations of flakes under large boulders which cover and protect the sites. The run-off of the site merges with that of site 18 and spills into the gully. Part of either this site or site 18 is located on a large rock at NY 2716307196 which appears to have moved down the slope carrying the deposit with it, so that now this part of the site is very much not in situ.

Size: 8m x 2m

Concentration: 3 (55)

At NY 2716907194 there is another small site again with boulder cover at the top of the site. It is very similar to the main site.

Size: 4m x 3m

Concentration : 3

Flake size: Medium

Finds: R 287 (17)

20 - NY 2716507200

An area of flakes in the gully bottom. It is probably run-off from sites 18 and 19 on the gully sides. The flakes are mainly medium and large but there are some small flakes at the top part of the site, suggesting that there was some independent flaking here as well as the run-off from above. The site is poorly defined.

Size: 12m x 3m

Concentration: 2 (17)

Flake size: Small, medium & large

21 - NY 2716407189

A small flaking site protected by boulders, the quantity of which makes the site difficult to define.

Size: c.5m x 2m

Concentration : 3

Flake size: Medium & large

22 - NY 2714107180

A sheep path has exposed an area of small flakes near the bottom of the gully, with flakes spilling into the gully. As it is very close to site 23 and as there are a few flakes in between them it is possible that this may be one part of a much bigger site that also incorporates site 23.

Size: 2m across.

Concentration: 2 (12)

Flake size: Small

23 - NY 2714007172

A sheep path has exposed an area of flakes on the East side of the gully. The site is very similar to site 22, c.f. description of site 22.

Size: 2m across.

Concentration : 2 (60)

Flake size: Medium & large

24 - NY 2711707160

This is the top site of the North scree workings and is a large scree flake site on the East side of the gully, partly in and partly out of the gully. The top of the site has partial vegetation cover and the flakes here are very small and increase in size towards the bottom. There are two flanks to the run-off of this site (East and West) which run on either side of a central spur. The West flank is 48m long and partly obscures the top of site 25, whereas the East flank is 34m long and has a small side run-off to the

South-East caused by path erosion.
Size: 45m x 19m
Concentration: 3 (30)
Flake size: Small & medium
Finds: R

25 - NY 2708507128

This is a very poorly defined site. The top of the area of flakes is partly obscured by run-off from site 24 and almost certainly this run-off contributes to the site. To an extent this makes it difficult to determine where the flaking actually occurred. The concentration of the flake site is low and it is overlain by site 27, which has a higher flake concentration. Its lower end is distorted by path erosion which has artificially moved a tongue of material down the slope, and there is an area of vegetation in the centre of the site which obscures part of it. It is separated from site 28 by an area of predominantly natural scree but in which there is the occasional flake.

Size: c.45m x 15m
Concentration: 2 (6)

26 - NY 2709507118

This scree flake site is independent of the main part of the scree and so is comparatively well-defined. The scree is moderately coarse and overlies a very coarse non-hornstone scree. There are very few small flakes even at the top and generally the flakes are medium and large in size. This site has a classic shape and form for a scree flake site, i.e. it is narrow at the top where the axe production took place, with larger flakes proliferating lower down where the run-off is broadest and finally it dwindles to nothing.

Size: 29m x 6m
Concentration: 2 (12)
Flake size: Medium & large
Finds: R 295.2 (18); H 295.5 (19)

27 - NY 2708507120

A possible flake site that overlies site 25. Its definition is confused because it is both amongst and upon the larger flake site (25) and also because it is severely disturbed by path erosion which has caused an artificial deposition of flakes at the bottom.

Size: 28m x 5m
Concentration: 2

28 - NY 2706807130

This is a large scree flake site, independent of and to the West of the main scree block. It is separated by an area of predominantly natural scree and similarly it is independent of site 29. As such it is relatively well-defined. It is a fairly fine, geologically mixed scree, with a fair number of flakes by North scree standards, which overlies a very coarse non-hornstone scree.

Size: 42m x 10m
Concentration: 2 (19)
Finds: H 300 (20); R

29 - NY 2704507116

This is a scree flake site to the West of the main part of the scree in a shallow gully. It is in a long run-off which splits into two streams at the bottom. It is a fine geologically mixed scree with a few flakes overlying a coarse non-hornstone scree.

Size: 39m x 4m
Concentration: 2 (9)
Flake size: Small and large

30 - NY 2706007075

This is a long run-off of flake material from the main block of the North Scree workings. The top of the

site is disturbed due to path erosion/deposition, the Western edge of the site is ill-defined because of its superimposition on site 36 and the lower end of the site forms a small independent spur, which has been used for scree running. There is no reliable indication as to where the central point of the flaking area is. This site is possibly run-off from other sites (e.g. 25) and small flaking patches down the length of the site. The scree overlies a coarse non hornstone scree.

Size: 63m x 7m

Concentration: 2 (5)

31 - NY 2704807085

This scree flake site is in the main part of the scree, its lower portion partly obscured by the top of site 36. To the West it is relatively well-defined because here there is a predominantly natural scree. It is a patchy fine geologically mixed scree that overlies the coarse natural scree and there are many large coarse tuff boulders emerging through the scree.

Size: 23m x 9m

Concentration: 2 (5)

Flake size: Small & medium

32 - NY 2703807096

This scree flake site is at the top of a break of slope drops into a small gully. The top of the site is a partly vegetated area comprising small flakes and this may include run-off from site 28. The run-off splits into two streams; the West one is, in the main, an original spread of flakes but the Eastern one is to a great extent caused by a path which has eroded the upper part of the site and redeposited the scree material along this Eastern stream. Consequently the site is in a poor condition and is ill-defined. It is a geologically mixed scree overlying a coarse scree.

Size: 25m x 5m

Concentration: 2 (5)

Finds: R

33 - NY 2701407084

This is a very small scree site of elliptical shape, at the foot of site 29. It has a higher flake concentration than site 29 (and therefore is unlikely to be composed of only run-off from site 29. It is well-defined as it is a fine scree of mixed geology overlying a coarse, non hornstone scree. This is probably one of the best examples of an independent flake site on the North Scree.

Size: 7m x 5m

Concentration: 2 (5)

Flake size: Medium

34 - NY 2701607077

This scree flake site is independent of the main scree block. It is fairly well-defined because it is a geologically mixed scree with small fragments and flakes overlying a coarse non hornstone scree. The lower end of the run becomes a bit unclear, as it merges with natural.

Size: 28m x 5m

Concentration: 2 (7)

Flake size: Medium

35 - NY 2702507710

This is a rambling scree site on the West edge of the small ridge. The lower end of the run is poorly defined, but the site is better defined to the West where it overlies a coarse (non-hornstone scree) and peters out. The scree is geologically mixed, with some flakes and in general it is ill-defined.

Size: 19m x 8m

Concentration: 2 (5)

Finds: R

36 - NY 2704607068

This is a small poorly defined area of flakes emerging out of an area of turf. To the East it is edged by site 30, and on the West it is edged by a coarse scree, so it is relatively well-defined on the West and poorly on the East. Because of the general confusion and disturbance of the sites in this lower part of the North scree it is not possible to confirm that this is a separate flake site as opposed to run-off from elsewhere, but certainly the run-off of site 31 contributes to site 36. The flakes and fragments are small at the top where the site emerges from the turf cover and increase in size towards the bottom.

Size: 22m x 6m

Concentration: 1 (3)

Flake size: Small & medium

37 - NY 2703007060

This is a fine scree flake site which has coarse natural blocks immediately above the site. It lies in a shallow gully between ridges of scree on either side. The lower part of North scree is very confused because of all the merging flake sites and so this site is very poorly defined.

Size: 19m x 5m

Concentration: 2 (7)

38 - NY 2701607556

This scree lies at the end of a small ridge and is not particularly well-defined (like many of the 'sites' in this disturbed and confused lower part of North scree). There are a few flakes mixed in with many more natural fragments of hornstone.

Size: 18m x 8m

Concentration: 2 (12)

Flake size: Large

39 - NY 27020704

This scree site starts above a distinctive grassy spur and then passes to the West of it. It is joined by a small branch of flakes at NY 2700907020. The flakes are not homogeneously spread over the site; instead they are mainly to be found at the top of NY 2700907020 and near the edges. This small branch of flakes may be a separate area of flaking as it is slightly higher than the main part of the run-off. Lower still the main run-off is joined by flake site 40. There is no point at the top of site 39 that is of a higher concentration that would indicate the actual flaking area of this site.

Size: 42m x 10m

Concentration : 2 (5)

40 - NY 2701007010

This small independent flake site is just below the main part of the spur, and comprises a scree of flakes mixed with large non hornstone blocks and also hornstone lumps. This worked material overlies a more natural scree and runs off into site 39.

Size: 10m x 6m

Concentration: 2 (40)

41 - NY 2699807060

This is a small patch of flakes in an area of erosion.

Size: 2m x 2m

Concentration: 2

Flake size: Medium & large

42 - NY 2798907040

A small flake site running down from a large outcrop of rock. South of this site there is no more worked material.

Size: 10m x 5m

Concentration: 2

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-c/Prehistoric/Neolithic/
CLAU SURVEY NO. = 18-42
VISITS = Mathews J & Quartermaine J/13-18/7/1984 & //7/1985

8604 SITE NAME = PIKE OF STICKLE I

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27230735 - 27210727 HEIGHT OD = c.470m - 550m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

43 - NY 2723007355

A small flake site. The main part of this site is at NY 2723007350 which has run-off that flows round a rock. But above this is a much smaller area of flakes that runs into the main site.

Size: 12m x 2m

Concentration: 2

Flake size: Medium

44 - NY 2724007344

This is a small flake site which flows down a steep slope and spills into a dried up stream, where there are few or no flakes. It is possible the flakes continue above the surveyed site but vegetation obscures any visibility.

Size: 6m x 3m

Concentration: 2

Flake size: Small & medium

45 - NY 2722007310 - 2720707272

Flakes appear in the dried stream bed gradually increasing in concentration towards the lower end of the site (downstream). It is probable that it is run-off from a site higher up (44?). The stream bed containing worked material gets broader before eventually spilling over a substantial drop. Though the material is presently slightly below the level of the hornstone outcrop, it is likely that the material was actually worked at the level of the hornstone, and hence this is probably a type b site.

Size: 20m x 2m

Concentration: 2

Flake size: Medium

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-b/Prehistoric/Neolithic/

CLAU SURVEY NO. = 43 - 45

VISITS = Mathews J/6/7/1984

8605 SITE NAME = PIKE OF STICKLE II

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27250725 - 27210724 HEIGHT OD = c.505m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

46 - NY 2725307250 - 2721107245

This flake site is in a gully to the North-West of Central Buttress. Some of it may be run-off from Top Buttress above, because site 110 spills into a gully that leads into this gully. The top part of the site is a narrow stream which is crossed by the path. It then spills over a small drop into the main part of the gully. Here the run-off broadens and is joined by flake site 48. At the bottom the site tapers out just before the edge of a crag.

Size: 41m x 5m

Concentration: 2 (17)

Flake size: Small, medium & large

Finds: R

47 - NY 2724507248

A tiny patch of flakes, apparently independent of site 46, although it is very close to it (to the South of site 46). It is possibly run-off from Central Buttress, though it is more likely to be independent.

Size: 2m x 2m

Concentration: 2

Flake size: Small & medium

48 - NY 2723607751

Flakes emerge from vegetation forming a small poorly defined run off that spills into site 46. It is probably an independent area of flaking. The connection between the flaking area and the join with site 46 is obscured by vegetation.

Size: 5m x 2m

Concentration : 2 (18)

Flake size: Small & medium

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-c/Prehistoric/Neolithic/

CLAU SURVEY NO. = 48

VISITS = Mathews J & Quartermaine J/13/7/1984 & //7/1985

8606 SITE NAME = CENTRAL BUTTRESS

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27300724 - 27310714 HEIGHT OD = 460m - 545m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

49 - NY 2730707240

This flake site is immediately underneath the Top Buttress. The flake site has partial vegetation cover and so its definition is poor. Much of this site is likely to be run-off from the Top Buttress, but it may also be where a hornstone boulder has fallen and subsequently been worked. The run-off from this site is partly covered by site 50 which, though also ill-defined, may be another flake site.

Size: 20m x 8m

Concentration: 4 (250)

Flake size: Medium & large

Finds: R;R;R

50 - NY 2730207224

This is probably a separate flake site. It has reasonable flake concentrations at the top which is well-defined but the run-off is poor because the site is partly covered by vegetation, although at the bottom of the site there is a small stream of flakes. This site partly overlies site 49 and so the two sites become confused and difficult to discriminate at the join.

Size: 25m x 7m

Concentration: 3 (56)

Flake size: Small

51 - NY 2728307225

A flake site overlying natural scree, broadening as it descends the slope and finally petering out leaving only the natural scree.

Size: 9m x 11m

Concentration: 2 (25)

Flake size: Small & medium

52 - NY 2728007217 - 2729507152

This is a large extensive scree flake site that flows down the South slope of the Central Buttress. Much of the North-West part of the site is obscured by vegetation. The run-off narrows and at a small spur it divides into two channels. The one to the West flows into a steep gully and the other channel to the East of the spur joins with site 55.

Size: 65m x 10m

Concentration: 3 (116)
Flake size: Small, medium & large
Finds: R;R

53 - NY 2726007205

This high concentration flake site is on the South-West edge of Central Buttress. To the North-West there are two patches of highly concentrated flakes under some large boulders at NY 2725107215 and NY 2725607217.

In between the three concentrations of flakes, the area is covered with vegetation, so it is probable that this is all one site. It is one of the pure flake sites (i.e. all the material at the site is worked).

There is a 1m x 1m cut into the turf cover at the North-West edge of the main part of the site, which is indicative of an amateur excavation. The flakes here are in a pile with no vegetation cover and as there are no flakes in the 'excavation' it is possible that this pile is in part spoil from the excavation. The site overlies the coarse natural scree. The debitage appears to have a considerable depth.

Size: 20m x 6m

Concentration: 5 (800)

Flake size: Medium & large

54 - NY 2726907191

This is a small patch of flakes on the South edge of the natural scree. There are big chunks of hornstone rock in the bottom of a hole eroded through the vegetation.

Size: 2m x 2m

Concentration: 2 (11)

Flake size: Small & medium

Finds: R

55 - NY 2730707186 - 2731007140

This is a separate flake site emerging out of the vegetation. The run-off merges with site 52 to form a long run-off towards Central Scree, down a small gully on the side of Central Buttress.

Size: 40m x 4m

Concentration: 3 (35)

Flake size: Small & medium

56 - NY 2729107184

A tiny scree site in the vegetation to the East of scree site 52. It is poorly defined because of the vegetation cover around the site.

Size: 4m x 1m

Concentration: 3 (83)

Flake size: Medium & large

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-c/Prehistoric/Neolithic/

CLAU SURVEY NO. = 49 - 56

VISITS = Mathews J & Quartermaine J/10/7/1984 & /7/1985

8607 SITE NAME = CENTRAL SCREE

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 272070 HEIGHT OD = 251m - 400m

1:10000 PLAN = NY 20 NE

CLAU SURVEY NO. = 57 - 81

DESCRIPTION =

57 - NY 2729607058

A small flake site in an eroded area of heather cover, spilling into one of the main Central Scree sites (59).

Size: 4m x 2.5m

Concentration: 3 (37)
Flake size: Small & medium

58 - NY 2727807069

A small scree flake site on the same level as site 57, crossed by a sheep track. It lies at the top of the crag which looms above the main scree flake sites: 62 and 61.

Size: 6m x 1m
Concentration: 1 (2)
Flake size: Medium

59 - NY 2729207053 - 2725007020

This is a large scree flake site on the top of a spur at the East edge of Central Scree. At the top it is well-defined but towards the bottom the concentration gets lower and merges with an overall background concentration of flakes throughout the main block of Central Scree. Also towards the bottom a path confuses the general displacement of the flakes. To the West is a gully which contains site 60. The two sites merge towards the bottom and then merge into the Central Scree background flake concentration.

Size: c.40m x 10m
Concentration: 3 (28)
Flake size: Small, medium & large

60 - NY 2727807054

This is a largish flake site starting at the bottom of a cliff face, in the gully between sites 59 and 61 and is heavily obscured by vegetation. It merges with site 59 further down where a strip of vegetation obscures the union between the sites. The rest of this site merges into the Central Scree background flake concentration.

Size: c.21m x 4m
Concentration: 3
Flake size: Small & medium

61 - NY 27260706

This flake site lies on a spur and divides the high concentration sites 60 and 62. It has a low concentration of flakes and there is no obvious higher concentration indicative of the actual flaking area. It is partly covered by heather and the upper limit of the site is obscured by an eroded grass bank that abuts the rock face.

Size: 14m width
Concentration: 1 (3)
Flake size: Small, medium & large

62 - NY 2729807153

At this site there is a very high concentration of flakes at the top of a gully. It is a pure flake site, i.e. all the material is worked. On a grassy ledge beside the site were found 24 rough-outs, placed recently as the grass was still green underneath. There were also some rough-outs visible amongst the pile of flakes. The site is adjacent to a small rock face and as the flakes clearly lie underneath the turf it is probable that the flakes carry on right up to the rock face. But as there is no hornstone outcropping in the area of the Central Scree, this is not indicative of any quarrying activity. T.Clare notes that there was an illicit excavation at this site which has cut back the turf <1>. The maximum estimated depth of this excavation was 0.5m. The run-off continues down the gully before eventually merging with the background concentration of Central Scree. The unweathered, fresh appearance of the flakes contrasts with the weathered flakes of site 61.

Size: 35m x 10m
Concentration : 5 (697)
Flake size: Small & medium
Finds: Rx22; R 77,1a (8); R 77,1b (9); R 77,1c (13)

63 - NY 2723607065

This scree flake site is visible above an area of vegetation. The run-off would seem to be in evidence below the vegetation, but because it merges with site 62 here, this is not entirely clear. The site is on a slight spur, distinguishing it from the gully of site 62, though the debitage does appear to spill into the gully of site 62.

Size: 25m x 6m

Concentration : 4 (116)

Flake size: Small, medium & large

64 - NY 2727607015

A small flaking site outside the main block of Central Scree flake working. It is covered by natural scree, hence it is ill-defined and in general a doubtful site.

Size: 5m x 5m

Concentration: 1 (2)

Flake size: Medium

65 - NY 2720807019 This site is amongst an area of general background (c.f. PRN 8607 summary), and though

there are areas of concentration above the average background, this site is the only one well enough defined to justify surveying as a possible working area. It has survived the effects of erosion and is just about distinct from the background concentration all around because it is a fine scree adjacent to an area of coarse large blocks. It is nevertheless a problematic site and there is a question mark over whether axe manufacture took place here.

Size: 15m x 4m

Concentration: 2

66 - NY 2716707000

An isolated patch of fragments and flakes, which is separated from the main part of the scree.

Size: 3m x 3m

Concentration: 2

Flake size: Medium

67 - NY 2717306990

This is a possible flake site emerging from the confused background concentration of flakes in Central Scree (c.f. PRN 8607 summary). It is very poorly defined.

Size: 7m x 1m

Concentration: 2

Flake size: Small

68 - NY 2718006989

This is a possible flake site emerging from the confused background flake concentration of Central Scree (c.f. PRN 8607 summary). It is very similar to site 67 and it is also poorly defined.

Size: 6m x 1m

Concentration: 2

Flake size: Small

69 - NY 2724006994

This is a small flake site outside the main scree block. It is beside an eroded grassy bank and is surrounded by a general scree. A path crosses the lower edge of the area, flakes continue down the slope on and adjacent to the path.

Size : 10m x 3m

Concentration: 2

Flake size: Small

70 - NY 2721206983

This is a narrow scree flake site emerging from an area of vegetation.

Size: 10m x 1m

Concentration: 3

Flake size: Small, medium & large

71 - NY 2722506975

This is a narrow scree flake site outside the main scree block. It starts below a large boulder and spills between two large rock outcrops.

Size: 17m x 1.5m

Concentration: 2

72 - NY 2715806989

This scree flake site is to the West of the main scree block. The site is well-defined on its Western edge where it merges with natural scree. On its Eastern edge the site appears to spill down the slope independently of the main scree.

Size : 15m x 3m

Concentration: 3

Flake size: Small

73 - NY 2720806955

A poorly defined area of flakes partly covered by natural scree, which is situated away from the main scree. It is below the two large crags and may be partly run-off from site 71.

Size: c.8m across.

Concentration: 1

74 - NY 2720106972

This scree flake site is about 2m wide at the top but becomes broader towards the bottom. The area around the site is a relatively coarse natural scree with a moderate background flake concentration. By contrast the site is a fine scree overlying the coarse scree with a concentration not much higher than the general background. It is a poorly defined site, which is distinguished from the background partly because of the path erosion.

Size: 10m x 3m

Concentration: 2 (13)

Flake size: Small & medium

75 - NY 2718306973

This scree flake site is on top of a spur that separates it from all other sites in the Central Scree. The site is a fine scree overlying a coarse, natural, geologically mixed scree and as such is relatively well-defined. There is path erosion near the top of the site but in the main the site is relatively undisturbed.

Size: 14m x 3m

Concentration :2 (12)

Flake size: Small

76 - NY 2718906964 - 2717006930

This is a scree flake site. At the top of the site it is partly turf covered and so ill-defined; the turf is unable to get a hold on the lower scree and so it peters out. As for the main part of the site, it is a fine mixed geology site (with fair a mounts of hornstone) and is bounded by coarser screes on either side and so is fairly well-defined. At its top the site is about 3 - 4m wide but it broadens further down, and eventually the material spills down to the bottom of Central Scree.

Size: 40m x 7m

Concentration: 3 (27)

Flake size: Small & medium

77 - NY 2716406970 - 2713206939

This is a large scree flake site on the South-West edge of Central scree. Much of the central part of the site is obscured by areas of vegetation, which has the effect of confusing the interpretation of the site. Above the vegetation the area is confused with different patterns of flaking around the scree site, as if there were more than one flaking area. At first sight it would seem that the flaking above the vegetation is independent of that below but closer examination shows that it is more than likely that it is all one large flake site. The flakes increase in size towards the bottom.

Size: 48m x 17m

Concentration: 3 (32)

Flake size: Small, medium & large

78 - NY 271706950 - 2715006927

This is a scree flake site that emerges from an eroded large grassy bank and spreads to the bottom of the Central Scree, where it carries on in two small tongues. It is bounded to the East by a predominantly coarse, natural scree which is very distinct, so on this side the site is relatively well-defined. At the top of the site there are small flakes and a light vegetation covering, which thins away to nothing. The scree is of a mixed geological origin and has occasional small blocks of hornstone in the scree.

Size: 30m x 12m

Concentration: 3 (24)

Flake size: Small & medium

79 - NY 2714006922

A tiny patch of flakes separated from the main scree by vegetation. The top (working) area of the site is obscured by vegetation, and the surveyed part of the site is part of the run-off. Thus although it appears to be circular in shape, the true shape, without the vegetation cover, is likely to be more normal, i.e. a small working area fuelling a long comet shaped run-off. The site is fairly well-defined.

Size: (as surveyed) 2m x 2m

Concentration: 2 (43)

Flake size: Small, medium & large

80 - NY 2715206916

This is a small scree flake site. It is wider at the top than at the bottom. The site overlies a very coarse scree, and is fairly well-defined, despite the fact that it is partly obscured by vegetation. This is the lowest of the Central Scree sites.

Size: 10m x 4m

Concentration: 3 (37)

Flake size: Small & medium

81 - NY 2716406925

This is a small flake site below the main scree block, though there does seem to be a slight run-off contribution from site 76, as there is a very small patch of flakes (unsurveyed) between this site and the run-off of site 76. The flakes increase in size towards the bottom and are mixed in with some non hornstone elements. There are some very large rocks at the bottom of the site.

Size: 12m x 4m

Concentration: 2 (20)

Flake size: Small & medium

PRN 8607

Much of the Central Scree contains an undefinable low concentration of flakes. This background concentration is caused by many small sites which have over the years heavily eroded, and the flakes have been spread all over the expanse of scree. There are areas where concentrations rise above the background level and also areas where the concentrations are lower, but very few of these high points of concentration can be defined

as an area of working.

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-c/Prehistoric/Neolithic/

VISITS = Claris P, Mathews J & Quartermaine J/12-17/6/1984 & /9/1985

SOURCES = <1> Desc text/CLAU/Clare T//Interim note on a study of the Langdale Axe factory sites/Unpublished/

CLAU SURVEY NO. = 57 - 81

8608 SITE NAME = TOP BUTTRESS

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27350725 HEIGHT OD = c.550m - 625m

[Small, medium & large

1:10000 PLAN = NY 20 NE

CLAU SURVEY NO. = 82-112, 195-207

DESCRIPTION =

82 - NY 2740307272

This is a flake site eroding out of vegetation cover. It is separated from site 83 by a 2m wide strip of vegetation indicating the possibility that the two sites are in actuality one site. It is on a gradual slope and the site terminates about 1m from the edge of a crag, though there is a slight trickle of flakes over the edge. A sheep track crosses the deposit at its lo west edge. The site includes fragments of tuff up to 0.3m across.

Size: 7m x 2m

Concentration: 4 (334)

There is another similar patch of weathered flakes, located about 6m away to the East, on the edge of the crag. The turf is eroding back and in so doing exposing the flakes.

Size : 1m x 1m

Flake site-b

Flake size: Small, medium & large

83 - NY 2739907269

This is a flake deposit visible at the edge of eroded vegetation cover. It is below a boulder of hornstone and on a gradual slope. The lower limit is on the edge of the crag, with a trickle spilling over the edge.

Size: 3m x 2m

Concentration: 4 (244)

Flake site-b

Flake size: Small, medium & large

84 - NY 2739307271

At this site there is a flake deposit and tuff fragments at an eroding edge of vegetation. The site is c.10 metres below an outcrop of hornstone. It is on a gradual slope and its lower edge is on the edge of the crag.

Size: 4m x 4m

Concentration: 4 (224)

A further small patch of flakes emerges from an area of eroding turf c.10m west of this deposit NY 2738207271) and on the edge of the crag.

Around the area there are other isolated flakes amongst the turf.

Size: 0.5m x 0.5m

Flake site-b

Flake size: Small, medium & large

Finds: R

85a - NY 2740007261 - 2742607245

The deposit appears at the eroded edge of vegetation cover and includes very small flakes and tuff fragments (av.0.15-0.2m across). The deposit abuts the crag face at the upper limit of the area, immediately below site 83, and it is likely that part of the site is run-off from above. There is no visible evidence of quarrying, but part of the face of the hornstone outcrop is obscured by vegetation. The deposit continues down a moderate gradient, following a course round the base of a lower outcrop, where there is a concentrated deposit of flakes (sized c. 10mm across). Medium and small flakes are frequent at the lower limit where the deposit spills over a crag onto the South Scree below.

Size: 33m x 2-5m

Concentration: 5 (880)

Flake site-b

Flake size: Small, medium & large

85b - NY 2741307255 {prev: TBf

This is an area of working on the middle side terrace adjacent to the main area of run-off/working (85a). It comprises mainly large and medium flakes spilling out of an exposure through turf adjacent to a small crag. The crag forms a corner at this point and within the corner is a large block. The material extends behind the large block, so either the material is run-off from the crag above or the block came to rest after the working. The waste material is mixed in with natural scree and natural flakes. Some of the flakes are unpatinated while others are thick white patinated, indicating that some had eroded out from peat (possibly from terrace above). Much of the site may be obscured by vegetation and as there are very few small flakes within the debitage it is probable that this was not the working floor.

The site was first surveyed and recorded in June 1991.

Size: 3m x 0.5m

Concentration: 3 (80)

Flake site-b

Flake size: Large & medium

86 - NY 2743407255

A small patch of flakes on a grassy ledge below and adjacent to a tuff outcrop. It spills into the South Scree. It may be run-off from above, but because there is no site known above it, this is perhaps rather in doubt.

Size: 1m x 1m

Concentration: 5 (992)

Flake site-b

Flake size: Small & medium

87 - NY 2740707249

A mixture of natural scree and debitage visible at an eroded edge of vegetation cover. Patches of flakes of all sizes are piled up at the upper limit of the area with frequent fragments of hornstone. Concentrated patches of flakes appear exposed at other points throughout the scree. The flakes and blocks are very weathered (brown and white/grey with lichen growth). The site is located on the lower edge of a gently sloping plateau and it continues to the edge of the crag where it spills over large crag.

Size: 23m x 9m

Concentration: 3 (173)

Flake site-b

Finds: R;R

88 - NY 2740207732

This flake deposit has vegetation cover at the top and also towards the bottom, and it may be more extensive but is obscured by the vegetation. It is possibly run-off from site 91. There are scatters of flakes on the rocky ledges below, but these are likely to be run off from site 91 as well as this site. The flakes are moderately weathered.

Size: 3m x 2m

Concentration: 4 (190)

Flake site-b

Flake size: Small, medium & large

89 - NY 2739707257

This is a small flake site. A vegetated bank separates the site by about 5m from an outcrop of hornstone and is possibly run-off from a higher point. Some flakes are patinated and stained brown.

Size: 4m x 0.5m

Concentration: 4 (368)

Flake site-b

Flake size: Medium

90 - NY 2739207757

A flake deposit comprising medium flakes and larger tuff fragments emerging from an eroded area covered with vegetation. It is located directly below a small gap in the adjacent rock face and is possibly run-off from above. Some flakes are patinated and stained brown.

Size: 2.5m x 2.5m

Concentration: 3 (42)

Flake site-b

Flake size: Medium

91 - NY 2738607253 - 2739507228

A large deposit of flakes and frequent fragments of tuff visible at the edge of an eroded bilberry covered bank. The surfaces of the flakes are moderately weathered but less weathered than at site 87. The vegetated bank extends up the slope towards the rock face, possibly concealing further deposits. The deposit spreads down a moderate slope, passing round a large boulder, then falling over a cliff edge with scattered flakes continuing on small rock ledges below. Other isolated flakes are scattered on vegetation in the general vicinity of the main deposit.

Size: 14m x 30m

Concentration: 4 (180)

Flake site-b

Flake size: Small, medium & large

92 - NY 2738607261 - 2737507227

An extensive flake site abutting a rock face about 4m wide at the top. The lowest part of the site runs East around a second lower rock outcrop. The central part of the site runs to the top of this outcrop along a 13m wide spread, and spills over into site 93. At the top of the site are very frequent small flakes (c.10mm across) with frequent medium and occasional large flakes and tuff frags. (c.0.15m across). The debitage is unweathered and has a fresh blue-green appearance. There is no visible evidence of quarrying but the base of the rock outcrop is partly obscured by vegetation and debitage. The East edge merges with site 91 in places; elsewhere it is separated by a strip of bilberry and heather approx. 2.5m wide. In this bank an exposed area shows the deposit of site 92 apparently stratified below site 91. A rough-out and medium flakes were found at the lowest part of the area in the East, where the site overhangs site 93. The debitage here is slightly weathered brown but has no lichen growth. There is a heap of flakes of all sizes accumulated in the central area above the outcrop.

Size: 38m x 13m

Concentration: 4 (162)

Flake site-b

Flake size: Small, medium & large

Finds: R

93 - NY 2737607240

This is a spread of flakes along the base of the rock face and extending down the moderate slope away from the rock face. It is probable that much of the site is run-off from site 92, although it may not be entirely so, because the concentration of flakes in this site is slightly higher than at site 92. There

is no evidence of quarrying on the rock face, indeed the tuff appears unsuitable, exhibiting excessive banding and variation. Quite a high proportion of the flakes exhibit both patination and brown staining.

Size: 7m x 6m

Concentration: 4 (348)

Flake site-b

94 - NY 2737907259 - 2735507223

An extensive site with a concentrated deposit of debitage emerging at the upper edge from a vegetated bank, which is eroded to a depth of 0.5m. Patchy heather covers much of the area. At the top there are very frequent small flakes and moderate medium and large flakes and there are also frequent tuff fragments (c.0.15m across). The larger blocks are weathered whereas other debitage is predominantly unweathered. At the Western limit, about 10m below the top, the outcropping hornstone has a fresh appearance, slightly patinated with partial lichen growth and evidence of conchoidal fracturing indicating possible quarrying (at this point a large rough-out - 0.35m long, 70mm wide, and 40-50mm thick was found but not sampled). A break in the turf cover above this point reveals at least 1m depth of flakes and fragments sealed by larger blocks and vegetation. Rough-outs occur on the lower and Eastern part of the area, which flows over a rock face. The run-off below here is site 100.

Size: 22m x 10m

A rough-out of triangular section (No.31) was found near the top of the site.

Concentration: 4 (220)

Flake site-b

Flake size: Small, medium & large

Finds: R;R;R 451,1 (No.31)

95 - NY 2736607272

A small cave opening on to a grassy ledge immediately above site 98. There are expanded fissures and conchoidal fracturing on the under-side of the overhang, at the top of the cave and around the entrance, which is an indication of quarrying. The floor of the cave has a scatter of large and medium flakes. It is adjacent to caves 96 and 97, and is located in hornstone.

A square metre trench was excavated within the cave by Hinge P, on behalf of the Reading University project <1>. This demonstrated that the flake deposit was 1.7m thick, hence the cave was originally large enough to accommodate persons working within. There was evidence of freshly quarried material at the base of the deposit, but in the main the fill comprised successive tips of debitage. The upper layers comprised a deposit of axe thinning flakes. Charcoal was found in considerable concentrations at differing levels, and the character of the debitage is similar to that from the site 98 quarry excavation. Quarrying is confirmed by the excavation, with the implication that it was undertaken by fire setting.

Size: height: 0.6m, width: 1.8m, depth: 5m

Concentration: 1

Flake site-a

Flake size: Medium & large

96 - NY 2730207273

A small cave adjacent to sites 95 and 97. There is a limited amount of conchoidal fracturing around the entrance, which possibly indicates quarrying. There are only occasional flakes visible and though at present it is restricted in height, this may reflect a substantial depth of debitage, as is found at site 95.

It is located in hornstone. A modern rusty shovel was found inside the cave.

Size: 3m width.

Flake site-ab

97 - NY 2736007275

A very small cave immediately West of site 96. The floor is about 2m above the floor of site 96 and drops away from the entrance. There is little or no flakes within the cave but there is a low concentration outside the entrance. It is located in hornstone, but there are no clear signs of conchoidal fracturing and it is probably natural in formation. However it may have been used as a shelter.

Size: height: 1m, width: 1m, depth: 5m
Flake site-b

98 - NY 2736307268

This is the most important site of the Top Buttress group, showing evidence of extensive quarrying and considerable accumulation of debitage. Comparisons with a photograph taken in the late 1940's indicate that the level of the scree, adjacent to the rock face has dropped by as much as 0.5-1m, which is the result of illicit excavation. However this indicates the large depth of the worked deposit and indicates the severe threat posed by illicit excavations. The immense amount of worked material at the site and its location in a central commanding position of the crags on the South face of the Pike, make it the most visually impressive of all the Langdale sites. Flake site 98 comprises a quarried rock face and debitage extending from the face down the slope to a further outcrop. The continuing accumulation of material running down divides at this point into two long run-offs: 100 and 102 which run down over three further outcrops. The exposed face of tuff outcrop has been quarried across a width of c.13m. In the central area the face has been quarried approx. 2m deep to a height of 1m above the present upper surface of debitage, creating an overhang. On the West side of the overhang is an enlarged fissure 3.5m wide at its mouth extending further into the rock face. The hornstone would seem to have been removed as very large blocks. This is unlikely to have happened by the enlargement of naturally formed cracks because the surfaces have comparatively little patination, which is contrary to the situation when a frost fracture crack is broken open. The alternative is fire-setting, and although there is no visible discolouration of the rock, it is in the circumstances the most probable explanation. This is being tested for by the Reading University survey team (headed by R Bradley), see below. Conchoidal fracturing of the face extends in places across the full width of the outcrop. Quarried areas are blue/grey with a slight white patina; other adjacent rock faces are weathered grey/brown with lichen growth.

On the Eastern side of the face, at about 1m above the upper level of the quarried overhang, there is a possible hammerstone placed on a narrow shelf of rock. It is a grained ovoid rock c.0.16m across (This is first recorded by Mr R Tarver and a photograph of it is in the possession of CLAU). The debitage appears from eroding banks covered with heather and bilberry on either side, with scattered heather encroaching some 2m into the visible debitage on the West side. The debitage is unweathered. These deposits appear to be 100% worked, entirely composed of hornstone apart from five blocks of coarser stone near the quarried rock face (hammerstone material?). There is a concentration near the outcrop of fragments averaging 0.2m across and also a single larger block. Small flakes appear to predominate near the edges of the area. At the upper part of the site very small flakes appear to form a bedding layer with small, medium and large flakes lying on top, perhaps the result of the process of settling. The site is probably much more extensive than it presently appears because of partial vegetation cover, and it is probable that the depth of debitage obscures further signs of quarrying.

A 1m x 2m trench was excavated beside the outcrop, by the Reading University team <1>. There was a 1.5m depth of deposit, which on top of the the depth known to have been removed from earlier illicit excavations, indicates that the original depth may have been as much as 2 - 2.5m. The deposits were bedded horizontally, and comprised alternating episodes of quarrying and axe production. The lower layers comprised freshly broken blocks, with large amounts of charcoal. Then on top were levels of flaking corresponding to all stages of manufacture. Then on top there were more broken blocks and charcoal corresponding to a repeat of the process. Thus fire setting as a means of quarrying is confirmed.

Size: 13 x 13m

Concentration: 5 (1625)

Flake site-a

Flake size: Small, medium & large

Finds: R;R;H

99 - NY 2733307308 - 2733907230

This is a small cave and area of debitage located within an upper level of the hornstone outcrop. There is evidence of conchoidal fracturing and consequently there is the possibility that the cave may be the result of the enlargement of a natural fissure. All the surfaces, however, including those with conchoidal fractures, are equally heavily patinated and covered with lichen suggesting that the conchoidal fractures

are not contemporary with the flakes on the cave floor which have a lighter patination. However it is possible that the cave walls have been exposed to the elements for a longer time than the flakes on the floor, causing the difference in degree of patination. The floor of the cave is covered with flakes of all sizes and a few fragments of tuff. The debitage extends to the back of the cave, which although a very narrow space, suggests flaking at the site. No evidence of flake deposits could be found on ledges above the cave, nor was there any aperture large enough to admit material spilling down from above. Some material may have been washed out of the cave by water entering the back of the cave. 3m-2m down slope from the entrance is a deposit of flakes of all sizes, visible in an eroded area of turf. There is a moderate frequency of tuff fragments. This debitage extends down the slope adjacent to the crag before spilling over a sheer crag edge.

Size : height: 2.5m, width: 1m, depth: 2.7m

Concentration: 3 (120)

Flake site-ab

Flake size: Small, medium & large

100 - NY 2735907256 - 2734107242

An area of debitage associated with a probable quarry and including run-off material from site 98. The area is subdivided a b c d. Part a) begins at the upper level of the strip on the Eastern side of the rock outcrop which forms the lower limit of site 98. Part a) extends down the slope from this outcrop to the next outcrop running approximately South-East to the North-West; part b) continues to the next outcrop; part c) to the next outcrop; part d) finally tapers away near the edge of Top Butress.

Part a :

A section of tuff outcrop is abuted by debitage. The face of the outcrop is hollowed out at the base in the centre of the flake site, and an abundance of conchoidal fractures indicates quarrying. The depth from face to the back of the overhang is 1.2m. Debitage has accumulated against the rock-face and certainly includes run-off from site 98 above, possibly overlying quarried material. The top of the site includes very frequent small and very small flakes, with an increasing frequency of medium and large flakes from about 2m away from the rock-face, and a moderate frequency of blocks of tuff averaging 0.1-0.2m across. A large rough-out of 0.28m length is located here. This site is very similar to site 98 and the fact that the overhang is only 0.25m above the surface of the debitage, suggests that there is also a large depth of deposit. The site appears to be largely undisturbed. There is hammerstone material within the debitage.

Parts b,c,d

This is the continuation of run-off from the part a) debitage and some material running in from the Western part of site 94 at part b). There is no further evidence of quarrying at the other rock outcrops, and the other parts of this site appear to be entirely run-off from higher sites. The lowest limit of part d) terminates about 3m away from a sheer drop. Cf site 102 which also comprises debitage from site 98 running parallel to site 100 down the slope also in parts a)-d).

Size: 35m x 4m

Concentration: 4 (212)

Flake site-a

Flake size: Small, medium & large

Finds: R

101 - NY 2738707229 {prev: new TB

A small possibly working site on the lower terrace (below 91). The top of the site is adjacent to small crag and may be the location of the working floor. The top of the site is disturbed by a sheep path. The waste material spills over a small crag.

It was first surveyed in June 1991.

Size: 4m x 1.7m

102 - NY 2735507258

A long strip of debitage, probably entirely run-off from site 98. The material spills down the slope in four parts - a,b,c,d. Each part is delimited by intersecting outcrops of tuff running approx. South-East to North-West.

Part a :

This begins at the top as a narrow strip of flakes 0.5m wide, spilling over a rock ledge and broadening to over 2m. Medium flakes (average 0.1 - 0.12 m across) predominate at the top of the area with larger flakes and fragments of tuff (average 0.2m across) occurring in the centre of this part.

Parts B, C & D:

Part B is an extensive area of debitage, which is slightly raised in the middle, indicating that there is a large volume of worked material. However this deposit is fed by only a low trickle of flakes from part a. Hence though this is in part run off, it also incorporates a large degree of working in situ. Though there are some patches of very small flakes (10-20mm across), generally there are small flakes at the top of each part with larger flakes accumulating at the bottom of each part on ledges. C.f. site 100 which is also in 4 parts: a-d, and is parallel to this site.

Part E: {prev. 101

A scatter of mainly medium flakes on a ledge (NY 2734007751), which is run-off from part B. A possible rough-out was found here.

Size: 1m x 1m; Concentration : 3

Size: 39m x 6m

Concentration: 3 (95)

Flake site-b

Flake size: Small, medium & large

Finds: R

103 - NY 2734507274

An extensive area of debitage abutting a rock face of hornstone. The outcrop is a continuation of that at site 98. There are some conchoidal fractures on the face at the top Eastern part of the area, at NY 2734407276 and also sporadically along the entire length of the adjacent outcrop. Hence there is the implication that quarrying took place here. However there is no indication of any undercutting or any large scale quarrying and in the main the source was probably naturally detached blocks. Some debitage also emerges from a heather and bilberry covered bank. On the East side the flakes tend to be large (0.12-0.16 m across) and unweathered, while very small flakes (10-20 mm across) are concentrated at the top of the site, and appear to continue down the slope as a bedded layer overlain by an increasing frequency of medium and large flakes. The material at this point appears 100% worked. Outcrops of hornstone averaging 3m high flank the area of flake deposit. The site then spills over a crag edge at the lower limit of the area in to site 104. There is worked material on ledges in between sites 103 and 104.

Size: 20m x 10m

Concentration: 5 (880)

Flake site-ab

Flake size: Small, medium & large

104 - NY 2732607258

This is a strip of debitage which at least in part is run-off from site 103. The top of this site abuts a rock face, but there is no sign of quarrying. There is an accumulation of medium and large flakes (which are patinated and stained brown) and fragments of hornstone over 0.15 m long. At the top East point of the area a wooden shovel handle was found which matches the rest of the shovel found in cave site 96.

Size: 8m x 3m

Concentration: 3 (75)

Flake site-b

Flake size: Medium & large

Finds: R 460,2 (No. 36)

105 - NY 2733607275

A small strip of exposed flakes 1m wide emerging out of an area of vegetation. The site is 2m below an outcrop of hornstone and the flakes may possibly extend under the vegetation right up to the outcrop. The flakes and fragments of hornstone occur in all sizes and is possibly material washed down from above, but

there is a possibility that independent flaking is represented. The site runs down the slope into site 106. The flakes have much brown staining and patination.

Size: 4m x 1m

Concentration: 3 (50)

Flake site-b

Flake size: Small, medium & large

106 - NY 2732707275

An extensive area of debitage and a small quarry. An outcrop of hornstone is quarried at its base to a height of 0.2m above the level of debitage which fills in the overhang. The width of the overhang is 0.5m. There is evidence of conchoidal fracturing on the underside of the overhang and other areas and also there is only light weathering in these places on an otherwise weathered rock face. The fact that the overhang is only 0.2m above the level of the debitage, is reminiscent of the situation at site 98 before any excavation ever took place. Hence there is a possibility that there is also a large deposit of debitage adjacent to this quarry face. The deposit has accumulated against the outcrop and spreads down the slope. The flakes are of all sizes and the fragments of tuff are on average about 0.15m across. The smaller flakes tend to be at the most Westerly side of the site. There are also several fragments of coarser grained rock which may be hammerstone material. It is possible that there is an accumulation of washed down debitage on top of material worked at this site. The lower part of the debitage divides into two streams of flakes, both of which run over the edge of the crag and fall on to Central Butress directly below, probably contributing to the deposits of site 49. There is a rough-out in the lower part of the debitage.

Size: 20m x 6m

Concentration: 5 (611)

Flake site-a

Flake size: Small, medium & large

Finds: R

107 - NY 2732007260

This is a small deposit of medium flakes adjacent to a rock face, which is independent of other sites. It runs along a ridge then spills into a gully and from there on to Central Butress. The site is probably more extensive but there is vegetation cover around the site which hides any further evidence of flaking. The flakes are patinated and stained brown.

Size: 3m x 3m

Concentration: 3 (94)

Flake site-b

Flake size: Medium

108 - NY 2731307268

A very small flake site spilling over the crag on to Central Butress below. There is an exposed section through the vegetation beside the site in which there are some flakes, indicating to a limited extent that the site is partly obscured by vegetation. The flakes have brown staining and are patinated.

Size: 5m x 1.5m

Concentration: 3 (80)

Flake site-b

109a - NY 2732907284

This is a small exposed strip of flakes, which is probably material washed down from above. The rock face, about 5m away, has possibly been quarried as it displays slight evidence of conchoidal fracturing. There are frequent small and medium flakes and some fragments of tuff, with the smaller flakes towards the top end of the spread. The lower end of the strip trickles over a rock ledge, some flakes scattering on to a sheep track below (see footnote to site 106).

Size: 10m x 0.5m

Concentration: 2 (37)

Flake site-b

Flake size: Small & medium

109b - NY 2731707280

The lower end of the the 109a strip trickles over a rock ledge; the run-off below the crag is part b. It comprises some flakes exposed by a sheep track, which is about 0.4m wide; the track runs adjacent to the line of the crag and the material extends about 8m. The length of the exposure is about 8m. There is a small patch of flakes on a small ledge half way up the crag, which is a further deposit of run-off. The material appears to be entirely run-off from above; there is no evidence of any independant working.

Size: c.8m x 0.4m

110 - NY 2729307290

A wide area with thin deposits of flakes and washed down material at the head of the slope and with increasing quantities at the lower levels. The area divides into two strips in erosion channels with run-offs passing to each side of a slight spur. The debitage emerges from the eroding vegetation.

Southern strip: The flakes here fall over the crag edge above Central Buttress.

Northern strip: Here there are medium and large flakes with some tuff fragments accumulated in the channel which is 1.5m wide at the bottom. The flakes spill into the gully below, and there is a slight trickle of flakes in this gully down to its terminus North of Central Buttress.

Size: 13m x 4m and 22m x 4m

Concentration: 3

Flake site-b

Flake size: Small, medium & large

Finds: R

111 - NY 2730607290 {prev: 216

July 1990: Since 1985 extensive erosion of the turf cover has exposed an extensive axe factory site; the exposed area does not correspond to the line of a path and the cause of the localised erosion is not clear.

It comprises large concentrations of small to large flakes; there is no obvious size sorting reflecting its recent exposure. The extent shown on the plan corresponds to the edge of the vegetation and no limit of the flake deposit was observed.

Size: visible extent: length 11.5m width 7m

Flake site-b

Flake size: Small, medium and large

112 - NY 2742907284 - 2749007277 {prev: TBe

This is a long spillage of flakes on the eastern side of the top terrace, which has been exposed by a narrow stream. The top part of the site is adjacent to a large block and is extensively obscured by vegetation.

Although the working floor is obscured, the highest part of the site comprises mainly small and medium flakes mixed in with natural, indicating that the working floor is not far away, possibly by the nearby crags. Five metres above the highest part of the site there are occasional flakes protruding from the turf implying that the deposits extend up-slope. The concentration at the top is relatively small and there are higher concentrations below, indicating that either there was a working floor below or there has been substantial erosion.

The site is adjacent to an area of very coarse, natural scree.

The site was first surveyed and recorded in June 1991.

Size: 14.8m x 1.4m

Flake site-b

Flake size: Small & medium

Concentration: 2 (12)

195 - NY 2739707291 {prev: 218

On top of a large crag, on the north side of the upper Top- Buttress bench is a small working site which is extensively obscured by vegetation. The run-off has collected at the bottom of the crag and to a lesser extent within a small natural cave below the site. The concentration of the flakes is relatively low and there is no evidence of any in-situ working at the bottom of the crag. The cave would have provided

adequate shelter from the elements, yet there is only a low concentration flake deposit adjacent to a crack, where they have fallen from above. In the course of the 1991 season it was used as shelter during heavy rain and was not found to be very dry, owing to a number of persistent drips; it may have also proved to be less than ideal during the neolithic period.

Surveyed and recorded 1990.

Flake-site-b

Flake size: Small & medium

196 - NY 2735107286

There are two small areas of flake material amongst the vegetation on a gently sloping edge below tuff outcrops. Site 196 is the largest of these; it comprises medium and large flakes and fragments of tuff (average 0.15m across), several rough-outs and a broken hammerstone. A rock face is about 8m away from the top of the deposit, but shows no evidence of quarrying, though the base of the outcrop is obscured by vegetation. There is a small cave immediately above this point but it contained no flakes and is too small for shelter. About 9m East of site 196 is a small patch of flakes (about 3m from the terrace edge). Other flake deposits may be concealed beneath turf and bilberry cover on this terrace.

Size: 4m x 2.5m ; 0.5m x 0.5m

Flake site-b

Flake size: Medium & large

Finds: R;R;H

197 - NY 2736907270 {prev: TBc

These are three small exposures through turf near the edge of a substantial crag; each contains flakes and they are probably parts of a single site. They contain mainly small and medium flakes and possibly indicate the presence of a working floor in the locality.

Site surveyed and recorded June 1991.

Size: (extent of site, not erosion patches) c. 4.3m x 1.9m

Flake site-b

Flake size: Small & medium

198a - NY 2741007275 {prev: 217

A recently exposed working floor on the upper Top-Buttress bench; it extends down-slope from a small tuff-crag, which did not appear to have been worked. The extent shown on the 1:1000 plan are the edges of the vegetation not the limits of the working site. It comprises a high concentration of lightly patinated, small and medium flakes.

Surveyed 1990.

Size: length 4.5m width 3.5m

Concentration: 3 (75)

Flake site-b

Flake size: Small, medium and large

198b - NY 2741707276 {prev: TBd

An exposure through peat/turf vegetation adjacent to a large in-situ block; the flakes are small to medium (occasional large) in size and are white patinated (acidic soils). The site was not observed during the 1990 survey and would appear to be a very recent exposure. The extent of the site shown on the 1:2500 plan defines the limit of flakes on top of turf cover which are presumably a product of recent run-off. The flakes appear to be within peat and therefore indicates that the axe manufacture after the initiation of peat formation in this area. In the exposed section there is a visible depth of 70mm of worked material and there is probably a significant proportion of the site still exposed by peat.

Surveyed and recorded June 1991.

Size: 5.8m x 2.8m

Concentration: 3 (70)

Flake site-b

Flake size: mainly Small & medium

199 - NY 2744307309

The flakes are located in a small cave formed by large detached blocks. At the back there is a high concentration of small/very small flakes covered with moss except at the centre of the site. Towards the front there are medium and large flakes in addition, partly covered by grass and bilberry. The flakes in the cave are not patinated, yet the flakes at the entrance and at the sides are patinated, especially the ones that have fallen into a cavity on the West edge. There appears to be very little scattering of flakes out of the mouth of the cave, i.e. downslope, and generally the flakes would appear to be heaped at the back of the cave though the cave floor is relatively flat. The rock forming the cave is a coarse welded tuff (not hornstone), so it would seem likely that the cave was used for shelter and the source material was brought to the cave to enable sheltered knapping.

Size: 2m x 1m

Concentration: 4 (240)

Flake site-bd

Flake size: Small, medium & large

200 - NY 2744407305

There are two parts to this site a) and b):

a) This is a cave type formation that has been produced by a large leaning block. Where this block abuts a large boulder at right angles there is a concentration of mainly medium sized flakes, covered by a flat rock. This main concentration is on the East edge and spills down and across the back of this cavity. The rock covering is a welded tuff (not hornstone). The front of the 'cave' is vegetated and covered with peat, but on the surface there are a number of small flakes. The flakes appear to be heavily weathered green/brown except those exposed in the weathered peat.

Size: 0.5m x 0.5m

Concentration: 2 (21)

b) This site is exposed by the erosion of the turf bank at the top of the site and consequentially there are flakes exposed in the section. The upper half of the site consists of mainly small flakes on the eroded peat/soil surface while the lower half of the spread consists of larger flakes lying on grass. The scatter continues over a precipitous edge in to South Scree. The flakes are unpatinated with the exception of one chalky white flake.

Size: 3m x 2m

Concentration: 3/4 (160)

Flake site-b

Flake size: Small, medium & large

201 - NY 2744207298

The site comprises flakes spread evenly on the East half of a flat topped boulder on the edge of South Scree gully. The flakes are heavily weathered and covered with lichen. On the East edge the peat has eroded exposing medium sized less patinated flakes. Vegetation cover on this edge is bilberry. On small ledges below there are concentrations of flakes that have fallen down from this site.

Size: 1m x 1m

Concentration: 2 (10)

Flake site-b

Flake size: Medium & large

202 - NY 2742407238

An elongated site flowing down the natural slope. Part of it may be material spilled down from site 87, which is directly above it, but judging by the flake concentrations here there is also some independent flaking. The flakes are mainly medium in size with brown staining present on some. Vegetation obscures some of the site as flakes can be seen in peat sections. The site is at the base of a large outcrop but there is no evidence of quarrying. Flakes spill over the lower crag down on to South Scree. The main area of the site (about 2m in width) is on a grassy plateau between two outcrops. The route/path from South Scree cave on to Top Buttress passes through this site, so it would be the site most liable to human erosion if the

area became under greater visitor pressure than at present.

Size: 10m x 5m Concentration: 3 (92)

Flake site-b

Flake size: Small, medium & large

203 - NY 2738407204

This site was surveyed and described by Mark Edmonds of Reading University and here follows his description:

'This site below top buttress is not a simple result of overspill from the scree sites above (I did check).

The flakes appear to conform to all of the size categories, but there are no rough-outs. No evidence for quarrying could be seen, but the scatter did disappear under vegetation, so who knows?'

The site was surveyed without a theodolite so the accuracy is not necessarily of the same order as for the rest of the sites. If the position of the site is correct it is far below Top Buttress and consequentially far below the level of the band of hornstone so there is no question of quarrying. The size of the spread has not been recorded.

Flake size: Small, medium & large

204 - NY 2740507251 {prev: TBb

A very high concentration flake site visible in a recent exposure through the vegetation cover and much of the site is still obscured by patches of vegetation. It has been drawn with dashed lines because the edges represent the extent of the 1991 vegetation cover not the edge of the site. All the visible material is worked and the working floor is probably fairly close; however because of the obscuring vegetation its precise location is not known.

Surveyed and recorded in June 1991.

Size: (1991 vegetation exposure) 3.5m x 2.2m

Flake site-b

Concentration: 5

Flake size: Mainly Small & medium

205 - NY 2742507251 {prev: TB new site

A small exposure of flakes adjacent to a crag outcrop; the flakes spill over the crag onto the lowest of the eastern terraces.

The site was surveyed in June 1991.

Size: 3.4m x 0.7m

206 - NY 2935007291 {prev: TBa

A small cave (height c.1m) in the crag above the upper terrace; the only access is by an easy scramble up a gentle sloping section of crag. It is possible to shelter within the crag however it is a bit of a squeeze.

There is a humic deposit on the floor of the cave which contains 20 to 30 small to medium flakes; knapping would appear to have taken place within the cave.

Surveyed and recorded June 1991.

Size: 1m x 0.8m x 1m

Flake site-b

Concentration: 1 (8)

Flake size: Small & medium

207 - NY 2730507308

A scatter of flakes mostly on top of turf at the foot of a large crag on a natural bench; flakes are also revealed in limited exposures throughout the extent of the bench. The site includes a run-off element from site 99 above; however there is a significant concentration of flakes in a tiny cave set into the base of the crag and this may reflect an in-situ working deposit. The cave is a natural fissure and there is moss cover obscuring the flakes. There is a slight overhang, but it is not evident whether it has been artificially expanded; there is no evidence of any conchoidal fractures on the rock.

The flakes are spread over a fairly large area and the definition of the site is poor because of the vegetation cover.

Size: 7.1m x 5.6m
Flake site-b
Concentration: 2 (30)
Flake size: Small, medium and large

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM =

Flake site-ab/Prehistoric/Neolithic/

CLAU SURVEY NO. = 82-112, 195-207

VISITS = Claris P, Claris F & Quartermaine J/7-9/8/1984

Hindle C, Robinson K, Quartermaine J & Edmonds M/8/8/1985

Quartermaine J//6/1990;

Quartermaine J//6/1991

Quartermaine J//8/1992

SOURCES =

<1> Desc. text/CLAU (JQ)/Bradley R & Edmonds M/1987/Fieldwork at Great Langdale, Cumbria 1985-87:

Preliminary report/Unpublished interim.

Photo/CLAU/1984/11;40;NW/

8609 SITE NAME = SOUTH SCREE

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27460730 HEIGHT OD = 250m - 600m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

113 - NY 2745307280

The general area of South Scree is very disturbed by erosion but amongst the background concentration of exsitu flakes there are areas where the concentrations are significantly higher. This site is just such an area and comprises flakes spilling down the Western side of the gully. However this is not necessarily indicative of an area of working, and may be no more than a flake deposit which has survived the extreme erosion. There is a large boulder of hornstone above the flake area and this would have provided a limited amount of protection from erosion and so, in part, explaining the better survival.

Size: 10m x 2m

Concentration: 4 (244)

Flake site-b

Flake size: Medium

114 - NY 2746507281

At this site there are very large concentrations of tiny flakes in a section exposed at the East end of the boulder choke. The scree has dropped in level by as much as 2m due to erosion, leaving a 0.75m thick section of flakes, which is protected by some large boulders. Amongst these many thousands of tiny flakes there are no medium flakes, a possible indication that the finishing stage of axe manufacture took place in this area.

Concentration: 5 (600)

Flake site-b

Flake size: Small

115 - NY 2745407256

This area has a very high flake concentration, partly protected by some boulders to the North. In the vicinity of the boulders the flakes are mainly small, and lower down the scree there are larger flakes. Some of the boulders are hornstone. This is probably one of the best survivals of flake deposit on the South scree and also there were found a large number of Rough outs here. It is probably a flake site but owing to the extreme erosion in the area it is an uneasy conclusion. It is directly opposite the cave, and in this area the overall ratio of debitage to scree appears to increase. It is sectioned along its Western edge by erosion.

Size: 20m x 5m

Concentration: 5 (600)

Flake site-b

Finds: R 12 (1); R 8 (2); R 11 (3); R 13 (4); R 15 (5)

116 - NY 2744007256

This is the South scree cave (compare with sites 95, 96, 97 and 99 on Top Buttress). The South end is a natural fissure but the Northern end appears to have been enlarged. The roof of the cave is at the division between geological strata. The cave is cut into hornstone and around the entrance there are conchoidally fractured surfaces which have a light patina of similar thickness to the worked flakes, and these are probably indicative of quarrying. But these indications of working do not cover the sides of the cave and are mainly found on the floor to the South of the entrance and on the South side of the entrance. The presence of thick patina over most of the cave, by contrast with the entrance, may reflect differences in the amount of exposure of the surfaces to the elements. The lower parts of the cave are likely to have been covered by soil deposits and hence a lighter patination has developed. The extent of quarrying in this cave remains very unclear. There is an abundance of flakes on the floor of the cave, which as noted by Clare Fell could have come in from the scree outside when it was at a higher level. She has excavated in a small trench and found flakes down to the bedrock <1>.

There is a lot of worked rock outside and immediately to the North of the cave, and a great deal of it is conchoidally fractured. This may represent in places limited neolithic quarrying though parts of it look as if they may be the result of recent geological sampling.

There is a small track leading from the cave up to the Top Buttress, which was probably used by the Neolithic workers as there are very few routes that allow access to the Top Buttress.

Size: 5m x 2.5m

Flake site-a

117 - NY 2743507227

This is an accumulation on the West side of the gully of a high flake concentration. It is near to a distinctive large boulder. The flake concentration has been partly covered by the mobile scree that is brought down by walkers and scree runners. Thus this is the survival of a flake concentration and not necessarily a flake site. There are large quantities of very small flakes at the top of the accumulation and larger flakes at the bottom.

Size: 20m x 3m

Concentration: 5 (1000)

Flake site-bc

Flake size: Small

Finds: R 24

118 - NY 2746007140

The Middle and East gullies combine to form a single gully, which joins the South Scree gully at this site. The source of the hornstone for this site is probably boulders that originally came from either Middle or East gullies. The site is narrow and separated from the main part of the South Scree by an area of natural scree. The site splits up into two channels towards the bottom, the lower one going down a dry stream bed where there was no evidence of flakes. By comparison with the rest of South Scree this site has survived fairly well.

Size: 40m x 5m

Concentration: 3

Flake site-c

Flake size: Medium & large

119 - NY 27350695

This is an artificial tongue of material that was not present in 1948 when Clare Fell first visited the site. It is entirely caused by scree running and is the redistribution of material from the main South Scree workings. The tongue is on average 1.15m thick, has a volume of about 2300 cubic metres and by estimation weighs about 5,300 tons. The worked material comprises between 9% and 11% of the whole or about 450 metric tons. This indicates the vast amount of redistribution, and also the extent of axe manufacture

at South Scree. The material overlies a natural undisturbed base of boulder scree and turf.

Size: 190m x 9m

Concentration: 3

Finds: R

120 - NY 2744207124 {prev: 197}

An area of flakes partly covered by a natural scree. It may be independent of site 118 or alternatively it may be a spread of flakes from site 118 (the latter is perhaps more probable).

Size: 1.5m x 2m

Concentration: 1

Flake site-c

121 - NY 27370691 {prev: 120 & 121}

A) a tongue of material that is created by a path. The material has been redistributed down from the main area of South Scree by scree running. To the South of this path the scree is natural and so this line marks the lower end of the South Scree in the East fork.

Concentration: 3

Flake site-c

B) This is a run-off of waste material from the end of the tongue (a), but it is in lower concentrations than the tongue. It is not a flake site, but an artificial spread of flakes brought down the slope by scree running.

Concentration: 2

122 - NY 2735406874

This may be an independent flake site as there is no evidence of any flakes above the site. Below the site there is a very thin scatter of worked material almost down to the bottom of the East fork. As most sites are found grouped together, this working floor is unusual in terms of its isolation.

Size : 22m x 4m

Concentration: 3

Flake site-c

PRN 8609

The South Scree has a very high concentration background count which is greatest in concentration opposite the cave and which decreases towards the bottom of the gully. This situation has arisen because of the severe erosion from walkers and scree runners which has destroyed almost all of the sites and spread the flake material down the gully. Amongst this general high count of flakes there are a small number of areas where the concentration is significantly higher and it is possible that these represent working areas but equally possibly these may represent islands of flake deposit which have suffered less from the erosion. At the top of the South-scree, above the boulder choke, is an area of flakes which represents the top of the South scree background concentration. Although the erosion has severely damaged the deposits it is possible that axe production took place in this area. A few flakes and fragments protrude from a section of soil and vegetation at the base of the rock at this point above the boulder choke. The run-off stays close to the sides of the gully (where the erosion is least). It is probable that before the mid 1950's the top of the South Scree workings was on a line in between areas 112 and 114, but because of the erosion a large 'V' shaped area of predominantly natural scree now defines the top of the South Scree background flake concentration. Any flake deposits immediately above the boulder choke are likely to be better preserved (though covered), than elsewhere because the boulder choke has afforded some protection against erosion.

Concentration: 3 (134) {prev: 112}

Flake site-b

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-abc/Prehistoric/Neolithic/

CLAU SURVEY NO. = 113 - 122

VISITS = Claris P & Quartermaine J/25-30/5/1984

SOURCES =

8610 SITE NAME = MIDDLE GULLY

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27530731 - 27500721 HEIGHT OD = c.590m - 650m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

124 - NY 2753807314

This is an exposed area of scree with some fragments of hornstone and very occasional brown stained flakes. The site is poorly defined and is located 2m away from an outcrop.

Size: 5m x 3m

Concentration: 1

Flake site-b

Flake size: Medium

125 - NY 2752407300

This is a scree flake site where the flakes emerge out of an eroded area of turf to the East of, and about 0.5m away from, a small outcrop of hornstone. The site is split into two streams by a small rock outcrop about 5m from the top of the site. These streams spill the flakes into site 130. The flakes are patinated and stained brown.

Size: 15m x 4m

Concentration: 3 (25)

Flake site-b

Flake size: Small & medium

126 - NY 2750307288

This is a turf covered hollow. It is oval in shape and has a slight bank on the Southern and Eastern edges. In the centre there are about 6 small blocks of hornstone, which are perhaps derived from an outcrop of hornstone about 4m away. There are no flakes visible in the hollow but there is a flake site (127) only a few metres away. This site was partly excavated by M Davies-Shiel. It was first described by R Plint who mistook it for a hut circle <1>, because the shape of the site was that of a depression surrounded by a large prominent bank. It may be better interpreted as a quarry pit with the corresponding upcast all around the area of working. Davies-Shiel's excavation is unpublished however he asserts that he caused only limited damage to the site <2>, and so it would appear to be more or less in its original condition. He removed some rough-outs which are now in the Kendal Museum. The site has parallels with the Dungeon Ghyll hollows 148 & 149. G Plint records that when he saw it, prior to the excavation, there was a very long rough-out in the middle of the hollow <1>.

Size: 4m x 4m

Flake site-a

127 - NY 2750807284

An exposed area of flakes and fragments of hornstone on the East side of a large ridge. The flakes appear to continue under the vegetation suggesting that the hollow and this site may be connected. The flakes are patinated.

Size: 5m x 5m

Concentration: 3 (120)

Flake site-b

Flake size: Medium & large

128 - NY 2749407270

This is a small exposure at the top of the ridge of the Middle gully, which has the debitage spilling into the South Scree gully. It is a narrow site, emerging from beneath vegetation, but the flakes are very concentrated. Flakes have been found below the area and elsewhere on ledges above the South Scree gully,

which are run-off from this and perhaps other unknown sites. Some flakes display brown staining.

Size: 4m x 1m

Concentration: 4 (167)

Finds: R

129 - NY 2751307283

An exposure of frequent flakes running down the slope to feed into gully site 130. This may represent the run-off of site 127 as it appears immediately below it and is separated by about 3m of turf covered ground. The flakes are patinated.

Size: 7m x 1m

Concentration: 3 (150)

Flake site-b

Flake size: Small & medium

130 - NY 2752507283

In the main this is an area of run-off fed by sites 125, 129, 131 and 132, but there may also be independent flaking obscured by tourist erosion. This is the main area of flakes in the Middle Gully. The material spills down the gully towards a turf covered, large outcrop, which divides the run-off into two streams. The West stream goes over a vertical drop and then carries on for another 25m down the gully before petering out. The other stream has a very low concentration and is augmented by material from the East side of the gully.

Size: 70m x 10m

Concentration: 3 (80)

Flake site-b

Flake size: Small, medium & large

Finds: R 185 (11)

131 - NY 2751007266

A small flaking site spilling East from the West side of the gully. It extends from the base of the crag across a grass/bilberry covered ledge before trickling down into the main site (130). Much of the site is covered by vegetation.

Size: 7m x 2m

Concentration: 3 (114)

Flake site-b

Flake size: Small & medium

132 - NY 2753507254

This is an area of many small flake patches on the East side of Middle Gully, near the bottom of the ridge. The site is patchy partly because much of the area is covered by vegetation, and there are only limited exposures through it, and also because the outcrops of rocks have split up the flakes into small streams. The flakes are patinated and stained brown.

Size: 10m x 5m

Concentration: 3 (62)

Flake site-c

Flake size: Small & medium

133 - NY 2754007234

A small exposure of flakes near the top of the ridge that divides Middle and East gullies. It is poorly defined because of partial vegetation cover.

Size: c.3m x 3m

Concentration: 2

Flake site-b

134 - NY 2753507235

A flake site near the top of the ridge on the East side of Middle Gully. At the top are small to medium flakes which probably represent the actual area of flaking. The site extends down the slope before spilling over a vertical cliff and eventually trickling into site 130 (East channel).

Size: 8m x 6m

Concentration: 3

Flake site-b

Flake size: Small, medium & large

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-b Flake site-ab/Prehistoric/Neolithic/

CLAU SURVEY NO. = 124-134

VISITS = Claris P/28-29/6/1984

Robinson K & Hindle/29/7/1985

SOURCES =

<1> Pers. comm//G Plint/1986//

<2> Pers. comm//M Davies Shiel/1988//

8611 SITE NAME = EAST GULLY

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27550725 HEIGHT OD = c.580m - 650m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

135 - NY 2754807241

On the first visit (Quartermaine J) it was thought that this was one long poorly defined site, but on the second visit (Hindle C and Robinson K) it was thought that the site was split into two. The reason for the confusion is that there is thick vegetation cover which obscures much of the site, and in the period between the visits there has been differential erosion. There is an outcrop of hornstone about 4m away. The site starts at the top of the ridge and then spills towards the East gully.

Size: 15m x 4m

Flake site-b

Flake size: Small & medium

136 - NY 2755807268

This is a small flake site which has some flakes emerging from an eroded area of turf. It then fans out before spilling over a rock outcrop into a tiny gully where flake site 137 starts.

Size: 4m x 3m

Concentration: 2

Flake site-b

Flake size: Small & medium

137 - NY 2755407257

This long flake site starts inside a small gully partly fed by site 136, it spills down the slope to the bottom of the East gully where it joins the main run-off (site 140). At the bottom it broadens and appears to split into two channels around an area of vegetation. Some of the flakes are patinated.

Size: 35m x 4m

Concentration: 3 (25)

Flake site-b

Flake size: Medium

138 - NY 2756007270

This is a small exposed area of natural scree. The upper half has a relatively high concentration of flakes overlying the natural scree. About half way down the scree exposure the flake concentration peters out leaving just the natural coarse scree, and the occasional flake. The top half is partly covered by vegetation and some of the flakes are patinated.

Size: 5m x 4m

Concentration: 3 (107)
Flake size: Small & medium

139 - NY 2757607268

The top of this site is a narrow run of flakes, down a gully between two small crag outcrops. The site broadens and at NY 2756407257 there is evidence of the rock being worked, in the form of a rock cut groove approx. 1m wide and 1m deep. On the underside of this small undercut, there are a few conchoidal fractures, and some of the hornstone is almost entirely devoid of patination. There is a reasonable case for limited quarrying at this site. However, though the debitage of the site extends up to this area of worked outcrop, there is no substantial deposit of debitage immediately adjacent as there are at other quarries. Below the level of the 'working' the site diminishes into a small trickle before joining site 140 at the bottom of the gully. The flakes increase in size towards the bottom.

Size: 35m x 5m
Concentration: 3 (165)
Flake site-ab
Flake size: Small & medium

140 - NY 27580724

This is the run-off of scree at the bottom of the gully, fed by sites 137 and 139. There is no evidence to indicate that there was any independent flaking here, but on the other hand the possibility cannot be completely dismissed. The site spills down to the very narrow bottleneck of the gorge with a very steep drop following it. Although worked material clearly falls over the edge there is only a small amount of flakes at the bottom. The site comprises much natural scree with only a small concentration of flakes.

Size: 40m x 5m
Concentration: 2 (6)
Flake site-c

141 - NY 2758607276

Flake site at the head of the gully. It spills down the gully before petering out. The area between sites 141 and 140 has very few flakes so site 141 will not be feeding site 140 to any great extent. The flakes are mainly medium and large with a few small ones.

Size: 20m x 4m
Concentration: 3 (65)
Flake site-b
Flake size: Small, medium & large
Finds: R 202 (14)

142 - NY 2757807270

A tiny ill-defined flake site, comprehensively covered by vegetation.

Size: 3m x 1m
Concentration: 2 (6)
Flake site-b
Flake size: Medium

239 - NY 2756507271

June 1990: A recent exposure of a small, working site adjacent to a large block/crag. Some of the material runs-off over the crag edge towards site 139.

Size: length 4.5m Width 2.5m
Flake site-b

240 - NY 2756907283 {prev: 238}

A flake deposit overlain by coarse scree. There is a localised concentration of flakes in the centre of the triangular area of coarse scree, and isolated flakes are visible beneath coarse blocks in the rest of the

scree. The extent of the working site is not known.
Flake site-b

CLAU SURVEY NO. = 135-142, 239-240
VISITS = Claris P & Mathews J/2/7/1984
Quartermaine J, Hindle C & Robinson K/29/7/1985
Quartermaine J//6/1990

8612 SITE NAME = THUNACAR KNOTT

LOCAL AUTHORITY = ALLERDALE PARISH = BORROWDALE

NGR = NY 27400814

Small, medium & large Rx19

1:10000 PLAN = NY 20 NE

DESCRIPTION =

143 - NY 27400814

This site was originally found by Mr P Johnson in 1966 and it was then the subject of excavations undertaken by T McK Clough in 1969 and 1970 <1>. The following description is from the excavation report: 'The chipping site is in a shallow scoop in the fellside where a saucer of peat which once formed over the archaeological material is now eroding and spilling downhill to expose at its base an extensive bed of chippings.'

In the course of the excavation no definite structural features were found. There was, however a small amount of scattered charcoal which was sent for carbon dating, and produced a date of 2524+- 52 BC. There were found two main concentrations of flakes; one concentration comprised large flakes and rough outs, while the other in a separate trench 10m from the first comprised no rough outs and very small flakes (<50mm). This would seem to imply that the coarse roughing and the trimming stages of manufacture were conducted in different places.

Size of main trench: 8m x 4.5m

The site was located by T.Clough in c. 1989 and was surveyed in August 1992.

LUAU description - 1992:

A semi-circular peat hag, with an exposed, 0.9m deep section of peat lying on top of mineral soil. Flakes are scattered around the edge of the section and there is also a concentration of flakes within the middle of the hag. The flakes are all located on the mineral soil and peat formation clearly post-dated axe manufacture. The precise location of the 1969 trench is not obvious from the present surface evidence, but appears to have extended across the floor of the peat hag. The flakes have moderate patination.

To the west of the main hag is a small square of thin grass (2.5mx2.0m); it has appearance of a former trench, however the only trench recorded by T.Clough was 3m across, and 10m to the north-west of the main trench, whereas this is only about 3m to the west of the main trench. Within the centre of the square is a moderate concentration of medium and large flakes (the concentration for the site was counted from this area). There are also some more flakes exposed to the west of the square.

There is a small hag to the north-west of the main trench which was probably the location of the small trench reported by Clough, however there was no obvious trench. A limited number of medium and large flakes were observed at the base of the trench.

Flake site-d

Flake size: mainly medium and large

Concentration: 3 (56)

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-d/Prehistoric/Neolithic/

CLAU SURVEY NO. = 143

VISITS = McK Clough T//1969 & 1970; Quartermaine J/August/1992

SOURCES =

<1>Desc text/UL/McK Clough T/1973/Excavations on a Langdale chipping site in 1969 and 1970/CW2 1973

8613 SITE NAME = LOFT CRAG

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 278071 HEIGHT OD = 560m - 670m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

144 - NY 2776107116

A scree site 19m long which is exposed only by a narrow path 1m wide which winds its way up the slope, and much of the site is covered by turf. There is an outcrop of fine-tuff at the top of the site which has conchoidal fracture scars and may have been quarried. There are flakes on the path for much of its length down the slope and there is an implication that this is a tiny exposure of a very large site and may be comparable to the quarry sites of Harrison east or Top Buttress. There are large chunks of unworked hornstone around the site, and there is a concentration of small and medium flakes just below the rock band.

Size: 19m x ?m

Concentration: 2 (55)

144a: Above and to the North of 144 is a small patch of flakes exposed by the path. Medium sized flakes .

Size: c 0.5m across

Concentration: 2 (5)

Flake site-ab

Flake size: Small, medium & large

Finds: R

145 - NY 2782007089

A small flake site that spills down a narrow gully on a steep rock face, on the Eastern edge of Loft crag. A small patch of flakes at the bottom of the crag marks the lower limit of the run-off.

Size: 20m x 1m

Concentration: 2

Flake site-b

Flake size: Medium & large

146 - NY 2779407066

The main part of this flake site is on a gently sloping terrace just below Loft Crag. It is a 4m x 4m area of flaking comprising many small flakes. There are signs of working at the crag by this site. There is a slight overhang and there are some conchoidal fractures on around the outcrop. The rock is suitable for working and the patination is markedly thin on the overhang area by comparison with elsewhere on the rock face. It probably represents limited quarrying, however, if so it is on a very low scale.

From here there is a narrow run-off which spills over a cliff edge. At the bottom the run-off splits into two streams, the main one heading South-West and then passing over a sharp drop. From here there is a narrow stream of flakes down the steep crag side, to the East of the main gully. Half way down, before the stream of flakes spills into the main gully, the flake concentration diminishes almost to nothing and then slightly further down there is a very distinct increase in the concentration. This area of increased concentration (146a at NY 2780807028) is located on a small terrace just below a sharp break of slope and suggests that the site comprises run-off augmented by additional flaking.

In the main gully the flakes are found on the West side, just below where the gully and the site join, they then become more integrated with blocks of natural hornstone. The flakes here are slightly patinated and are small to large in size.

Size: 80m x 4m

Concentration: 4 (360)

Flake site-ab

Flake size: Small, medium & large

147 - NY 2782407074

At the top of this site there are many medium flakes. The site then runs off in a 1.75m wide, well-defined stream, which splits off into two small streams of flakes before spilling over a cliff face into a gully.

The Easterly of the two streams spills down the crags for quite a way before petering out. The lowest part of the site is in an eroded channel and apparently separated from the rest of the site by vegetation cover.

The flakes are partly patinated .
Size: 55m x 6m
Concentration: 5 (396)
Flake site-b
Flake size: Small, medium & large

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-b/Prehistoric/Neolithic/
CLAU SURVEY NO. = 144 - 147
VISITS = Claris P, Gale D & Quartermaine J/3/7/1984 & 18-19/7/1984

8614 SITE NAME = DUNGEON GHYLL FORCE

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27950723 HEIGHT OD = c.630m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

148 - NY 2794007220

This is a depression in an otherwise fairly level area. The 2m deep hollow is turf covered so any flake scatter would be obscured. The rock that the depression cuts into is hornstone, and there are chunks of hornstone and other coarser tuffs in the bottom. The depression looks to be artificial and is a neolithic quarry pit for the exploitation of hornstone. Houlder C H believes these hollows are similar in appearance to the workings at Mynydd Rhyw, before they were excavated. Another example of this type of site is to be found on the ridge between South Scree and Middle Gully, site 126.

Size: c.4m diam.

Flake site-a

149 - NY 2793907231

This is a hollow very similar to site 148, except that it is smaller. Like site 148, it is a neolithic quarry pit. Half of the hollow was excavated by Thomas J, on behalf of the Reading University project <1>. This revealed a large pit with worked outcrops of hornstone at the bottom. There was no sign of any burning and the rock appears to have been extracted by the enlargement of existing cracks. The large pit was filled by large amounts of debitage and fractured blocks of hornstone. A later pit was cut into the earlier, and it is this later earthwork which is broadly represented by the surface hollow.

Size: 3m diam.

Flake site-a

150 - NY 2794707225

The flake site has many large chunks of hornstone intermixed with some flakes. The worked material spills over the cliff edge into the Dungeon Ghyll force gully. Hornstone outcrops very close to this site.

Size: 11m x 6m

Concentration: 2 (54)

Flake site-b

Flake size: Small, medium & large

151 - NY 2794407232

This is a flake site which merges with site 150, but which has larger flake concentrations than 150. It spills over the cliff into the Dungeon Ghyll force gully. The debitage appears weathered and the flakes are mainly small.

Size: 6m x 4m

Concentration: 4 (256)

151b: At NY 2794307231 a 1m x 1m section was excavated by the Reading University research team in September 1986. Flakes were found at the bottom and this almost certainly reflects a continuation of site 151.

Flake site-b

Flake size: Small, medium & large

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM =

Flake site-ab/Prehistoric/Neolithic/

CLAU SURVEY NO. = 148 - 151

VISITS = Mathews J & Gale D/19/7/1984

SOURCES =

<1> Desc text/CLAU (JQ)/Bradley R & Edmonds M/1987/Fieldwork at Great Langdale, Cumbria 1985-87:
Preliminary report/ Unpublished interim/

8615 SITE NAME = DUNGEON GHYLL FORCE

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27980727 HEIGHT OD = c.620m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

152 - NY 2798007270

A flake site beside Dungeon Ghyll force, exposed by a footpath which has eroded the peat cover and damaged the site. It seems to be a single layer of flakes on relatively flat ground. The flakes have a thick chalky white patina. Sites 152 and 153 in the 1984 season were planned as two independent sites but as a result of further erosion around the sites it became clear in the 1985 season that the two sites are in fact one (the two concentrations of flakes merge into each other).

Size: 6m across.

Concentration: 2 (30)

152b & 152c : At NY 2797307277 & NY 2796907270 there were 1m x 1m sample sections excavated by the

Reading

University research team in Sept. 1986. Flakes were found in both sections either this is all one large site (>15m across) or these are separate sites, the former is perhaps the more likely.

Flake size: Medium & large

153 - NY 2799107270

A thin flake scatter which merges with site 152. The site has been exposed by the path and consequently the site is heavily disturbed and generally ill-defined. The flakes have a thick chalky white patina, c.f. site 152.

Size: c.5m across.

Concentration: 1

Flake size: Small & medium

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-b/Prehistoric/Neolithic/

CLAU SURVEY NO. = 152 & 153

VISITS = Mathews J & Gale D/20/7/1984

8616 SITE NAME = HARRISON STICKLE

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 28100725 - 28190723 HEIGHT OD = 600m - 630m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

154 - NY 2810007267

A long narrow deposit of flakes that runs from near the base of Harrison Stickle rock face down to the Dungeon Ghyll force path and consists of patchy exposures of high flake concentrations. Below the path the flake deposit peters out. The flake size increases towards the bottom.

Size: 22m x 1m

Concentration: 4 (232)

Flake site-b

Flake size: Small, medium & large

155 - NY 2810607267

This flake site adjoins a large outcrop of hornstone, with very large concentrations of flakes at this point. There is no obvious working of the rock but quarrying cannot be completely discounted. The site adjoins another larger site (156) which may have quarrying. The two sites are separated by a vegetated ridge of peat and so the division of the flaking in this area into two sites may be artificial discrimination. The two sites spill down the slope independently for 14m before forming a single area of run-off. This site has a flake concentration higher than that of site 156.

Size: 24m x 5m

Concentration: 5 (312)

Flake site-b

Flake size: Small, medium & large

156 - NY 2811207267

The top of the site is a patch of flakes on a raised buttress. This spills down in a narrow stream to the main part of the site where there is a large concentration of small and medium flakes. This spills down over a small rock face, before forming a single run-off with site 155 down to the path. Just below the main buttress, half way down site 156 there is a small side run-off that flows down towards the East. Below the path the run-off continues down the steep slope towards the Dungeon Ghyll force in lower concentrations. It is partly covered by vegetation and is mixed with large chunks of naturally fractured hornstone. There are signs of working on the outcrops around the main part of the site, but this is not systematic. The flakes are mainly medium and are unevenly patinated as are the large worked blocks that lie around the site, c.f. site 161 for implication.

Size: 34m x 10m

Concentration: 4 (80)

Flake site-a

Flake size: Small, medium & large

157 - NY 2821607238

This is a possible worked rock, lying flat in an area of working. It is dubious and may be natural as a consequence it has been omitted from the inked archive plan.

Size: 1m x 1m

158 - NY 2813207231

This is an extensive, though very ill defined, site. It is exposed by the main Harrison path and there are flakes on the path and to a lesser extent in the exposed peat section. The vegetation in the area is scanty and it is possible to detect signs of the site above and below the path. The site seems to peter out before reaching the bottom of the Dungeon Ghyll force gully. The flakes are mainly small with some medium.

Size: 25m x 12m

Concentration: 3 (144)

Flake site-b

Flake size: Small & medium

Finds: R 345,1 (22)

159 - NY 2812607199

A small scree site near the bottom of the Dungeon Force gully located on a steep slope, merging into a natural scree. It is an independent flake site as there is no evidence of run-off from above.

Size: 8m x 4m

Concentration: 2

Flake site-c

Flake size: Small & medium

160 - NY 2814807242

A small independent flake site to the West of the main quarry sites (161 & 162). In the 1984 season it was observed that on the North side the flakes appeared from under vegetation, indicating that part of the site

was obscured. In the 1985 Season this was confirmed because subsequent erosion had revealed flakes leading up to a nearby outcrop.

Size: 7m x 4m

Concentration: 4 (197)

Flake site-b/Prehistoric/Neolithic/

Flake size: Medium

161 - NY 2816707244

This flake site is adjacent to the large site 162. The top of the site is beside a hornstone buttress, which shows distinct signs of quarrying on the North side. The rock is distinctly undercut and has only a slight patina, but the amount of working is less than at site 162. The two sites appear to be independent as they are divided by a strip of grass covered ground and despite their proximity the two sites have separate quarry sources. The flakes are mainly small with some medium at the top of the site, with a general increase in size towards the bottom. There are frequent tuff fragments in the debitage and the flakes are unequally weathered, some faces have a fairly thick patina while other faces have almost no patina. This may indicate that the flakes were knapped from naturally detached blocks that had been exposed to the elements for a large amount of time before the neolithic workers got to the site. If the site was largely the result of quarrying the flakes would be almost entirely without the thick patination because the amount of surface area on the outcrop exposed to the elements, with respect to the total volume of the rock detached, would have been small. It would appear therefore by this interpretation, that in the main the debitage at this site is the result of working naturally detached blocks from a blockfield as opposed to quarrying.

M Davies Shiel reports that he undertook an excavation at sites 161/162 in the 1950's <1>. He states that it was properly recorded, however the results have not been published. It is not known precisely where the excavation cut was and may include the working areas of both 161 & 162 or just part of one of these sites. However it would appear to have been adjacent to the outcrop.

Size: 15m x 4m

Concentration: 5 (328)

Flake site-a

Flake size: Small, medium & large

162 - NY 2817207242

A flake site exhibiting very convincing evidence for quarrying, with heavy undercutting at the main outcrop. The southern end of this outcrop is quite weathered on the undercut, however at the Northern end the patina is very light and the case for neolithic quarrying here is quite strong. There are many lumps of fractured hornstone and flakes with irregular weathering, and they are generally much more weathered (brown with lichen) than site 161. There are nearby blockfields with relatively little flaking, c.f. site 161.

There was an excavation excavated in the vicinity of sites 161 & 162 by M Davies Shiel, c.f. site 161 description.

Size: 18m x 5m

Concentration: 4 (220)

Flake site-a

Flake size: Small, medium & large

163 - NY 2817607234

An area of natural scree covering an area of flakes which is partly exposed by a sheep track. A thin strip of vegetated natural scree separates this site from site 162. The size and shape of this site cannot be precisely defined.

Concentration: 3 (18)

Flake site-b

Flake size: Small, medium & large

164 - NY 2818007237

An independent flake site overlain by a natural scree that contains many hornstone blocks. The

concentration of flakes at this site is localised. Though to the North the edge is obscured by turf.

Size: 3m x 3m

Concentration: 4 (220)

Flake site-b

Flake size: Medium

165 - NY 2818907236

This site is similar to site 164. The flake site is partly covered by a natural scree, and at the North edge the site is obscured by vegetation. The flakes are concentrated at the vegetation/scree interface and they are sized medium and large, some are patinated and the scree includes some blocks of hornstone.

Size: 3m x 4m

Concentration: 3

Flake site-b

Flake size: Medium & large

249 - NY 2819707244

A scatter of moderately patinated flakes extending underneath a large block. The flakes are both on and partly obscured by coarse scree, indicating that frost fractured scree formation has continued since the neolithic period. The scree includes both fine tuff and other coarse grained rock types. Turf also partly obscures the debitage and the precise location of the working floor is unclear; the definition is generally unclear. The patination of the flakes is irregular over the site reflecting the variable exposure to the elements over time.

Size: 2.5m x 0.5m

Flake site-b

Concentration: 2 (20)

Flake size: Medium and large

250 - NY 2816307215

A scatter of mainly small and medium flakes spilling out from beneath turf, which is itself capped by coarse scree; the coarse scree has evidently come to rest subsequent to the neolithic period. There is turf cover over much of site and the flakes are revealed through sporadic exposures; because of the scree/turf overburden the location of the working floor is uncertain and the definition of the site is poor. The flake material is on a fairly steep slope (c.45 deg.) and the material spills over a series of small crags onto the modern path at the bottom. The flakes are mixed in with a fine non-hornstone scree.

Size: 6m x 5.2m

Flake site-b

Concentration: 2 (28)

Flake size: Small and medium

251 - NY 2817707223

A poorly defined flake scatter spread down a moderately steep slope between a few small crags. There is some in-situ material in sections through the turf, mainly at the top of the site, but most of the material is non-earthfast and essentially run-off. There are some very large flakes at the top of the site. There is a sheep trod across the site and there is a risk of increasing erosion as a result of animal/human activity.

Size: 2.6m x 2.5m

Flake site-b

Concentration: 2 (18)

Flake size: Small and medium

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-abc/Prehistoric/Neolithic/

CLAU SURVEY NO. = 154-165 &

VISITS = Quartermaine J, Mathews J, Gale D & Claris/20-23/7/1984

SOURCES =

8617 SITE NAME = HARRISON CENTRAL

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 28250726 HEIGHT OD = 630m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

166 - NY 2823407273

An area of natural scree, of large boulders with occasional large flakes under the scree.

Size: 12m x 6m

Concentration : 2

Flake site-b

Flake size: Large

167 - NY 2625307245

This is a small area of worked flakes, covered by an area of natural, non hornstone scree. It is of indeterminate size and shape.

Concentration: 1

Flake site-b

Finds: R 352 (25)

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-b/Prehistoric/Neolithic/

CLAU SURVEY NO. = 166 - 167

VISITS = Claris P & Mathews J/23/7/1984

8618 SITE NAME = HARRISON PATH

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 28290713 - 28480708 HEIGHT OD = 540m - 490m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

168 - NY 2829007137

A spread of mainly small and medium but occasionally large flakes visible in an eroded area of vegetation and peat. The site is partly exposed by a footpath and hence there is a spread of flakes down the path. Because the path does not pass all the way through the site the total size of the site is not known. The flakes are heavily patinated and display brown staining.

June 1990: Despite extensively searching the area of the site it could not be located; it has either been completely destroyed or any remaining flakes are turf covered.

Concentration: 2 (20)

Flake size: Small, medium & large

169 - NY 2830807130

An area of heavily patinated medium flakes spreading along the modern footpath and the site appears seriously damaged by the path erosion. Some of the flakes display brown staining.

Size: 3m across

Concentration: 2 (9)

Flake size: Medium

170 - NY 2831307129

This is a small patch of mainly small but occasional medium flakes just beside and to the North of the path in eroded areas of vegetation. Surprisingly the site does not appear to be too disturbed, suggesting that it has only recently been exposed. The flakes are heavily patinated and display brown staining.

Size: 1.5m x 1.5m

Concentration: 2 (6)

Flake size: Small & medium

171 - NY 2831707126

A spread of medium and large flakes heavily disturbed by a modern path. The flakes are heavily patinated and display a light brown staining.

June 1990: An excavation was undertaken of the lower part of the site in advance of footpath repair.

Summary of trench 3 (sized 1.50m x 5m);

The trench was located in order to investigate a small flake deposit in an exposed section at NY 2831807123. Underneath the turf and loose scree there were peaty layers containing some worked material with a marked concentration in the middle of the trench extending into the south-facing section. It can reasonably be assumed that the limits of this site had been defined by this excavation.

A further trench was excavated in 1991 in advance of stepping the path.

Trench 4: (2m x 1m)

Only a small area of stratigraphy remained in situ on the west side of the trench. There was also only a very small quantity of worked material in the dark peaty layer and the brown loam below. Beneath the scree in the middle of the trench was natural subsoil.

Size: 6m x 4m

Concentration: 2 (9)

Flake size: Medium & large

172 - NY 2833007130

A small strip of mainly small and medium but also occasional large flakes exposed quite recently by a modern footpath which has almost completely cut through the site, forming a small gully at this point. The flakes are patinated, the larger ones particularly so, and many display a light brown staining.

As a result of path repair work in the summer of 1990 the site has been covered by turf.

Size: 2m x 2m

Concentration: 2 (43)

Flake size: Small, medium & large

173 - NY 2833507124

This is a small flake site exposed by path erosion. It lies between two areas of bad path erosion. The flakes are mainly medium but occasionally large and are heavily patinated/brown stained.

The site was excavated by the Reading University research project in 1987 <1>. The debitage had accumulated in a small, natural hollow and included numerous retouch flakes, associated directly with charcoal.

Size: 4m x 2.5m

Concentration: 2 (10)

Flake size: Medium & large

174 - NY 2836507115

This is the largest of the Harrison Path flake sites. It is exposed by two stretches of the path and in between the paths it is obscured by vegetation cover. There is a spread of flakes down the path and the site is heavily damaged as a result of the tourist traffic. The flakes are patinated a chalky white and are of a 'rough' texture; they are mainly small and medium with the occasional large flake.

Immediately North of the surveyed site, the Reading University research project, has undertaken the excavation of three 2m x 2m trenches in Sept. 1987 <1>. The trenches exposed a site which is presumably the same as the one that was surveyed. This demonstrated the presence of a platform in the hillside and a large concentration of retouched flakes in association with charcoal deposits.

May/June 1990: two trenches (1 & 4) were excavated on the lower part of the site.

Summary of trench 1 (sized 3m x 2m):

Turf cover survived only on the north side of the trench beneath which there was a thin layer of peat almost devoid of worked material. Below the peat there appeared to be two distinct layers containing large quantities of worked material. The upper of these was also humic while the underlying one was more clay-like and continued underneath the loose scree and gravel that existed where the turf had been eroded. At the west end of the trench there were dense patches of extremely small flakes possibly

indicative of a fine working floor, whereas towards the east end the scatter of worked material was less dense and there were fewer small flakes.

Summary of trench 4 (sized 2m x 1m):

Because the full extent of the site was still unknown, another trench (4) was excavated to the west of the first. It had a similar stratigraphic sequence and again there was a wealth of worked material across the whole trench, more dense in some areas than others. A large, relatively flat stone (at least 0.90m by 0.50m) protruded from the east and south facing sections at the west end of the trench. There were a few dense scatters of small worked flakes around and partly covering the stone which may indicate that it was used either as an anvil stone or a seat.

Despite the excavation of two trenches, neither a southern or western limit to site 174 has been discovered; it does however confirm original suspicions that the site was considerably larger than was apparent from the surface scatter.

Size: 12m x 2m

Concentration: 3

Flake size: Small, medium & large

Finds: R 363,1 (23)

224 - NY 2847707088 {prev: 206

This site has been exposed by a path, but was not visible in 1984 and 1985 and it would seem to be a comparatively recent exposure. The main concentration is at NY 2847500789 which is at the North-Western

end

of the site, and this is presumably where the flaking took place. The flakes have subsequently been carried downhill by foot and water erosion, so that there is now a large spread of flakes. Because the flake material has been spread over a large area it has a fairly low concentration. The flakes have a thin white patina.

Size: 9m x 2m

Concentration: 2 (8)

Flake size: Small & medium

225 - NY 2839207116 {prev: 205

The site has a low concentration of lightly patinated flakes exposed by the path, although some of the flakes have a thick white patina. The site was not visible in 1984, and was first located by the Reading University team in 1984, so it is a comparatively recent exposure. It is generally a poor site which is ill defined because of its low concentration.

June 1990: The site was found to contain very occasional flakes and there were none visible in exposed section.

As a result of path repair work in the summer of 1990 the site has been covered by turf.

Size: 3.5m x 2m

Concentration: 2 (6)

Flake size: Medium & large

226 - NY 2832907115

June 1990: A small site exposed as a result of path erosion; it was excavated by P.Tostevin in advance of path repair. Prior to excavation there was a low concentration of large and medium flakes, which were not in-situ on the eroded mineral-soil surface and one large flake in the exposed section.

Summary of excavation; trench 2 (5m x 1.5m) The working floor was severely damaged by path erosion; only a small amount of in situ material remained underneath the turf at the edge of the site. Some of the unstratified material found in the surface scree might have been run off from another site. Almost all of the surviving elements of the working floor were within the confines of the trench, however the small remaining part outside the trench will probably be completely destroyed by path consolidation work.

Size: length 4.5m Width 2.2m

Concentration: 2 (12)

Flake size: Large and medium

Flake site-c

227 - NY 2837507113

June 1990: A small site exposed by footpath erosion; there are some small flakes in the exposed section and occasional flakes on the path. The level of the path is 0.25m below the exposed flakes, and it is clear that all the flakes on the path are run-off from the exposed section.

As a result of path repair work in the summer of 1990 the site has been covered by turf.

Size: length 2.3m width 1.1m

228 - NY 2839807112

June 1990: A small site exposed by footpath erosion since 1985. It comprises occasional medium flakes on the exposed mineral soil of the path but none in the exposed section.

As a result of path repair work in the summer of 1990 the site has been covered by turf.

Size: length 1.05m width 0.9m

Concentration: 2 (9)

Flake site-c

Flake size: Medium

229 - NY 2837207098

A small flake site below the main Harrison Path, in a small peat exposure. It comprises occasional small to large flakes mixed in with fine scree.

The extent shown on the 1:250 plan corresponds to the edge of exposed vegetation not the limits of the site.

Size: extent of visible site; length 1.3m width 0.6m

Concentration: 1 (6)

Flake site-c

Flake size: Small, medium and large

230 - NY 2841507028

A small site in a limited exposure through turf; discovered by Bob Wilson (NT). It comprises five flakes and some unworked fine-grained tuff. It is possibly run-off from a larger site upslope.

Concentration: 1 (4)

Flake site-c

Flake size: Small and medium

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-c/Prehistoric/Neolithic/

CLAU SURVEY NO. = 168-174, 224-230 168-174, 224-230

VISITS = Mathews J & Robinson K/24/7/1984 & 1/10/1985

Edmonds M & Quartermaine J/30/5/1986

Quartermaine J & Tostevin P//6/1990

SOURCES =

<1> Desc. text/CLAU (JQ)/Bradley R & Edmonds M/1987/Fieldwork at Great Langdale, Cumbria. 1985-87: Preliminary report./Unpublished interim.

8619 SITE NAME = HARRISON EAST

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 28310730 - 28410730 HEIGHT OD = 570m - 610m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

175 - NY 2831507308

A scree flake site overlying part of an extensive area of natural scree. Some flakes are coming out of the vegetation at a sheep path. The site is most concentrated at its highest exposure near the Western edge.

Size: 8m x 5m

Concentration: 2 (10)

Flake size: Medium & large

176 - NY 2834107316

The scree flake site overlies the top of a large natural scree. At the top part of the site there is a triangular shaped area of vegetation cover. The flakes are concentrated along the scree/vegetation interface, especially at the top of the scree spurs. Above this main part of the site a sheep path has exposed two small areas of flakes, which are probably parts of the same flake site.

Size: 15m x 14m

Concentration: 4 (282)

Flake size: Medium

177 - NY 2835307322

A small patch of flakes protruding from vegetation a few metres from a rock outcrop.

Size: 1m x 1m

Concentration: 1 (6)

Flake size: Medium & large

178 - NY 2863807310

An area of flakes amongst a natural scree. The concentration is low and the size of the site is unclear.

Just below and to the South is another scree site (180) which appears to be distinct from site 178, as it peters out above site 180.

Size: 9m x 6m

Concentration: 1

179 - NY 2836107301

A small patch of flakes with natural scree on top, that is possibly run-off from site 176.

Size: 1m across.

Concentration: 1 (3)

Flake size: Small & medium

180 - NY 2836807304

A scree flake site amongst a natural scree. It appears to peter out above site 181 suggesting that the two sites are independent.

Size: 15m x 17m

Concentration: 4 (216)

Flake size: Small, medium & large

181 - NY 2837607298

A scree flake site that comprises two independent areas of flaking, divided by a strip of vegetation, which merge downslope to form a single run-off. At the top of the Western most flake area there are relatively high concentrations of small and medium flakes which decrease in number and become larger in size before merging with the other area. The run-off starts as a narrow stream then broadens towards the bottom (as is typical for a scree site). The Easternmost area follows the same pattern.

Size: 19m x 8m

Concentration: 3 (86)

Flake size: Small & medium

183 - NY 2838707299

This is a scree flake site. It comprises a small tongue of flakes that peters out into the natural scree.

Size: 10m x 1m

Concentration: 2 (5)

Flake size: Small & medium

184 - NY 28390731

A large area of natural scree in which there are occasional flakes intermingled with blocks of hornstone.

Within this large scree there are sporadic areas/patches where the concentration increases significantly, i.e. 185, and a small area to the North East (NY 2840807328). At the North-West edge there is a small exposure of medium flakes beside an area of eroding turf. There is a marked decrease in concentration towards the bottom. This large scree site lies only 10m away from a large outcrop of hornstone, however there is no evidence of quarrying. The scree composition is mainly naturally fractured hornstone, representing an exploitable source of raw material.

Size: 39m x 28m

Concentration: 2

Flake size: Medium & large

Finds: H 381 (24)

185 - NY 2839307314

An independent scree flake site within the larger area of scree (site 184).

Size: 7m x 4m

Concentration: 3 (120)

Flake size: Medium

186 - NY 2842807394

A small isolated flake site, which spills down a steep slope and around the base of a small buttress. A few of the flakes are brown stained.

Size: 19m x 3m

Concentration: 2 (12)

Flake size: Small & medium

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-b/Prehistoric/Neolithic/

CLAU SURVEY NO. = 175 - 186

VISITS = Quartermaine J, Mathews J, Claris P & Gale D/4/8/1984 & 26/7/1984

8620 SITE NAME = THORN CRAG

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 28090687 - 28150685 HEIGHT OD = 505m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

187 - NY 2809606870

This is a flake site on fairly level ground exposed by a path and a tiny streamlet (running North/South).

The tourist traffic has caused damage to both the flakes and the site. The unequal erosion of the turf cover is the cause of the unorthodox shape of the site. The flakes are mainly small though there are some medium sized ones.

Size: 7m x 5m

Concentration: 4 (175)

The floor was excavated by L.U.A.U in summer 1991. Two trenches were excavated along the line of the path to record any archaeological stratigraphy prior to National Trust path repair.

Trench 1: (5m x 1.5m)

The surface layers comprised turf, topsoil and loose gravelly scree above a compact gravelly loam which was limited to the area of the path erosion. Beneath these was a layer of fine dark peat which contained a number of flakes, particularly at the north-west end of the trench. The main concentration of worked material was contained within a layer of brown loam below the peat. The majority of the flakes were small (mainly between 5mm and 20mm across). In the north-west corner of the trench was a shallow but distinct layer of silty loam which also contained a small number of flakes.

Trench 2: (5m x 1.5m)

It was excavated one metre to the south-east of Trench 1 to establish the extent of site 187 along the proposed course of the path. The surface layers were similar to those observed in Trench 1 and comprised turf and topsoil and run-off from the main path consisting of loose scree. Beneath the scree in the north east corner was a layer of compacted gravelly loam which contained a small quantity of

redeposited flakes. Below these horizons was a layer of dark peaty loam which contained a significant quantity of flakes especially in the south-east corner. The greatest quantity of worked material was within the layer of brown loam below the peat with the highest concentrations found at either end of the trench. A small quantity of charcoal was found sealed beneath the lower layer of worked flakes and there was no evidence of any localised disturbance. A sample was taken (4.5g), which it is hoped will be acceptable for an accelerator date.

The excavation of trenches 1 and 2 did not define a limit to site 187 on the south or south-east side but confirmed that it was much greater than the extent of the surface scatter.

187b: At NY 2810006842 there is a tiny exposure of flakes (187a). This is probably run-off from 187 and is only exposed as a result of animal disturbance.

Size: c.0.3m x 0.3m

Flake size: Small & medium

Finds: R 208 (15)

188 - NY 2812006868

This is a site 8m across which has been exposed by a path 0.5m in width, so that only a small portion of the site is exposed. The flakes are patinated almost white.

Size: 8m x ?

Concentration: 4 (97)

Flake size: Small & medium

189 - NY 2815006850

A flake site on relatively level ground exposed by a path, and is flanked on its Western edge by a streamlet. The flakes are heavily patinated white, and there are occasionally larger flakes at the upper edge.

Size: 6m x 7m

Concentration: 2

Flake size: Small & medium

Finds: R 211.1 (16)

The floor was excavated by L.U.A.U in summer 1991. Two trenches were excavated along the line of the path to record any archaeological stratigraphy prior to National Trust path repair.

Trench 3: (2m x 1m)

The surface horizon comprised dark peaty loam; it contained between 50% and 60% of medium sized pebbles and also a very small quantity of flakes. At the north-west end of the trench, beneath the topsoil, was a layer of brown loam similar to that found in trenches 1 and 2; it contained a very small quantity of worked material.

The results of this excavation suggest that considerable erosion has already taken place, destroying the majority of in situ material.

231 - NY 2838606694 {prev: 198

Flakes were found in a small stream that lies beside the path. The concentration is low and it is probable that this does not represent the site so much as flakes brought down by the stream from a site obscured by peat further up the slope. H Mayoh reports a site about 30m up slope from here which may have been the source of the material. However we have not been able to locate this site and it is probable that the site is now obscured by peat.

Size: 4m x 0.5m Concentration: 1 (5)

Flake size: Medium & large

232 - NY 2810806865

A small site exposed by path erosion since 1984. It comprises a generally low concentration of flakes, however there is a slightly higher concentration in the north-eastern part of the exposure which was probably the working floor. There is a very limited amount of run-off down-slope from the floor.

Size: length 1.9m width (visible extent) 1.6m

Concentration: 2 (10)
Flake site-c
Flake size: Small and medium

233 - NY 2814006834

June 1990: an earlier alignment of the path caused limited amounts of erosion and exposed a small site. It comprises mainly medium and large flakes, some of which are in the exposed section.

Size: length 1.7m width c.1m

Concentration: 2 (32)

Flake site-c

Flake size: Medium and large

234 - NY 2816506822

June 1990: An earlier alignment of the path caused limited amounts of erosion and exposed a small site. The area is now well grassed over, however medium and large flakes were visible in two exposed sections; one adjacent to a large boulder. The site is near to a walkers cairn which includes some large flakes.

Flake site-c

Flake size: medium and large

235 - NY 2819406831

Footpath erosion has exposed a small site since 1984. It comprises a low concentration of mainly medium flakes on the mineral soil.

Size: Visible extent: length 2.7m width 1.7m

Concentration: 1 (5)

Flake site-c

Flake size: medium

236 - STONE BANKS - NY 28190687

A pair of converging alignments of medium and large stones; there is only limited evidence for associated banks but the number and regularity of the stones indicates that these are artificial features. They possibly represent limited amounts of stone clearance deposited against former boundaries and may relate to the nearby enclosure (195) rather than the axe factories.

Size: A) length 11.8m width 0.6m

B) length 36.8m width 0.6m

237 - ENCLOSURE - NY 2810506727

A decayed structure constructed against a straight crag in a steep, sided craggy gully. The northern side of the structure was not visible and the eastern side was very decayed and ill-defined. There was little evidence for internal terracing and it was probably a collapsed field.

Size: length 7m width 3m

238 - NY 2810006888 {prev: 195

A rectangular building of dry stone walling with three sides abutting on to a rock face on the fourth side. Internally there is a single short wall. The walls have angular blocks and a rubble core, they stand 1m to 1.5m high and are about 1m thick. At its South-East corner it has a 5m long stub of external wall. There is an area of collapsed wall material around the site. It is probably not of great antiquity, and may be the remains of a sheepfold or shieling.

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-c/Prehistoric/Neolithic/

CLAU SURVEY NO. = 187-189, 231-238

VISITS = Claris P & Gale D/4/7/1984 Quartermaine J//6/1990

8621 SITE NAME = STICKLE PATH

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 28500748 - 28590748 HEIGHT OD = 480M - 520m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

190 - NY 2850007475

A flake site exposed by paths. The central part of the site is covered by turf, and two parts of the same path have exposed the South and North edges of the site. The flakes are heavily patinated and lightly stained brown, and are mainly medium with occasional large flakes. The flakes are found strewn down a modern footpath and thus the site can be considered to be heavily damaged.

Size: c.6m width

Concentration: 2 (9)

Flake site-c

Flake size: Medium & large

191 - NY 2858407485

An area of medium flakes lying amidst gravel 4m North of the modern path. The site lies close to site 192. The flakes are heavily patinated and display light brown staining.

Size: 4m x 4m

Concentration: 2 (10)

Flake site-c

Flake size: Medium

192 - NY 2859207482

This is a small area of mainly medium and occasional small flakes in an eroded area of peat. The flakes are heavily patinated and some are stained light brown. The site probably represents the working of a single rough-out. The site is partly exposed by a modern footpath and thus is heavily damaged.

Size: 2m x 2m

Concentration: 2 (5)

Flake site-c

Flake size: Small & medium

CLAU SURVEY NO. = 190 - 192

VISITS = Quartermaine J & Robinson K/25/7/1984 & 1/10/1985

8622 SITE NAME = STICKLE TARN

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 2862307788 & 2886807694 HEIGHT OD = 470m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

193 - NY 2862307788

This is a flake site of mainly medium but also some small and large flakes lying submerged in about half a metre of water on the bed of Stickle tarn, near the shore line. It is located amongst a number of large boulders and it begins at the shore and extends about 2m into the tarn. The site is partly obscured by a growth of aquatic mosses. The flakes are lightly patinated and smoothed by water action.

Concentration: 3 (40)

Flake site-d

Flake size: Medium

194 - NY 2886807694

A small flake site lying on the bed of Stickle tarn in about a third of a metre of water, close to the shore line. The flakes are heavily covered by aquatic mosses and the site is difficult to find. The flakes are lightly patinated and smoothed by water action. No size is given because the limits are not known. The site was discovered by H Mayoh <1>.

Concentration: 3 (24)

Flake site-d

Flake size: Medium

PRN 8623

There is no visible local source material for the sites, but the main hornstone band may possibly extend into the Stickle Tarn area, where it would be obscured by the water. The source material for these sites is unlikely to be frost fractured hornstone because it is too far away from the nearest known outcrop for boulders to roll down to this spot. The other possibilities are either that the source material was carried down by the neolithic workers or that it was carried to the site by glacial action. The cwm that the tarn lies in was formed by glacial action and it is conceivable that this action transported the source material.

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-d/Prehistoric/Neolithic/

CLAU SURVEY NO. = 193 & 194

VISITS = Quartermaine J & Robinson K/7/6/1984 & 1/10/1985

SOURCES =

<1>Desc text//Mayoh H/Undergraduate thesis/1976/University of Birmingham

8623 SITE NAME = Harrison Combe 1

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 275074 HEIGHT OD = 650m - 660m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

123 - NY 2756107380

Almost all the site is exposed by path erosion. The flakes have been covered by peat and so have a thick white patina on them. There is a small streamlet now running through the centre of the site. There is outcropping hornstone in the area (about 6m away), and its presence apparently much higher than the main band may be an indication of a another independant hornstone band, however without a precise geological survey such conclusions must be tentative. The site is now under serious threat of destruction from erosion by walkers.

Size: 9m x 7m

Concentration: 4 (230)

123b: At NY 2755107387 a 1m x 1m sample section was excavated by the Reading University research team in September 1986. Flakes were found at the bottom of the section, so either this is part of site 123 which would have to be larger than 15m accross, or this section has exposed a new site.

Flake site-b

Flake size: Small & medium

208 - NY 2748707429

This is an area of mineral soil which has been exposed by peat erosion. On top of the soil there are occasional flakes exposed, and to judge by the low concentration here it would seem probable that this was not the centre of the working floor. The flakes are small to medium in size. There are no lumps of hornstone around and there is no sign of outcrop in the immediate vicinity.

When the site was revisited in July 1990 a very low scatter of flakes was observed on top of the exposed peat and there were a very small number protruding from the peat section. It is possible that the site post-dates the start of peat formation in this area.

Size: 5m x 4m

Concentration: 1

Flake site-bd

209 - NY 2749707403

This is an area of mineral soil that has been exposed as a result of peat erosion. There are occasional flakes over the exposed area but a slightly higher concentration at NY 2749807403. The flakes are very few in number, small in size and this is not necesarrily the centre of the working floor. There is no sign of outcropping hornstone in the immediate area. There are some flakes exposed in the lower parts of the peat

section and they are all white patinated.

Size: 4m x 1m

Concentration: 1

Flake site-bd

210 - NY 2752207379

This is a tiny area of flaking which has been exposed by the erosion of the path. It comprises very occasional small flakes that are washing out of the exposed section and subsequently spilling down the path.

Size: 0.8m x 0.8m

Concentration: 1

Flake site-b

211 - NY 2751107388

This is a 1m x 1m trial square excavated by the Reading University research project in 1986. It produced a low concentration of flakes.

Flake site-b

212 - NY 2791907204

This is a 1m x 1m trial square excavated by the Reading University research team in 1986. It produced a high concentration of flakes.

Flake site-b

213 - NY 2784007193

This is a 1m x 1m trial square excavated by the Reading University research team in 1986. It produced a low concentration of flakes.

Flake site-bd

214 - NY 2768907357

This is a small, but very concentrated flake site, which has been partly exposed as a result of path erosion. It was excavated by the Reading University research project <1> and shown to be a scatter of flakes only about 0.6m across, but which contained about 200 - 300 flakes of all sizes. Mark Edmonds believes that this was a dump of flake material, and not a working floor because the size of the scatter is not consistent with normal working practices. There is no sign of outcropping hornstone in the area and it is isolated from any known working sites.

215 - AVAILABLE

216 - NY 2747707375 {prev: 111

a) A small exposure due to erosion of the peat at the top of the South Scree and which is obscured by peat to the North. The site has very low flake concentrations; however it may represent the working of rock from an upper band of hornstone (c.f. site 123).

Size of exposure: 4m x 1m

Concentration: 1 (1)

When the site was visited in 1990, there were observed two areas of very low flake concentration spreading out from the peat section; adjacent to each flakes were observed in the exposed face of the peat. The area to the east was larger and contained slightly greater quantities of flakes. These two areas probably represent differential erosion of a single site which is predominantly covered by the peat to the north.

Concentration of eastern area of flakes: 1 (3)

111b: At NY 2747907378 a 1m x 1m sample section was excavated by the Reading University research team in September 1986. Flakes were found which would imply that the size of this site (111) is greater than 5m.

Flake site-bd

217 - NY 2758107307 {prev: 224

July 1990: path erosion has exposed a narrow section through part of a substantial working site; turf obscures the northern, eastern and southern edges of the site. At the eastern edge of the exposure the path continues over the turf, however there is another small exposure (sized 0.1m x 0.1m) of the site further along the path. The flakes are white patinated and are small and medium in size. The concentration of flakes is uniform throughout the exposure and therefore provides no indication of where the working floor was.

Size: Maximum visible length 3.6m

Concentration: 2 (15)

Flake site-b

Flake size: Small and medium

218 - NY 2760307293 {prev: 225

A very low concentration flake scatter on a broad exposure of mineral soil, as a result of path erosion.

The flakes are white patinated and small and medium in size; there are however larger quantities of small flakes at the top (south-east) of the site which may be an indication of the location of the working floor.

The flakes are mixed in with natural scree.

Size: length c.3m width 1.6m

Concentration: 1 (5)

Flake site-b

Flake size: Small and medium

219 - NY 2748707371

A well preserved, discrete, compact scatter of mainly small and some medium flakes. It has been exposed by path erosion but at the time of recording July 1990) it had not been significantly disturbed. It lies on mineral soil but was covered by peat and as a result the flakes are white patinated.

It has a classic flake distribution; a large concentration of flakes in the centre which decreases uniformly outwards.

After photographing the sites, stones were placed around the site to protect it from walkers.

Size: diameter c.0.9m

Concentration: 3 (35)

Flake site-b

Flake size: Small and medium

220 - NY 2748907367

A loose scatter of flakes exposed by path erosion, lying on mineral soil. The scatter is relatively discrete and appears to have been exposed only a short time (recorded 6/1990); it was not observed during the original survey in 1984. The flakes are mainly small in size with some medium sized.

Size: length 1.9m width 1.2m

Concentration: 2 (11)

Flake site-b

Flake size: Small and medium

221 - NY 2747007384

A site in an exposed peat section, comprising a small, low scatter of flakes, extending outwards from the north section of the peat cutting. The main part of the site is probably still covered by the peat. There are two large boulders adjacent to the site.

Size: length 2.4m width 1.2m

Concentration 2 (c.10)

Flake site-b

Flake size: Medium

222 - NY 2754507335

There are two exposures of this site; a narrow section to the north-east exposed by a narrow foot path and a larger area of peat erosion to the south of the path. The flakes are grey / moderately patinated and are

mainly small and medium in size with the occasional large flake. The peat exposure continues for c.1.5m further than the southernmost extent of the flakes, hence the southern edge of the site is exposed.

Size: (maximum visible extent) length 3.4m width 1.4m

Concentration: 3 (45)

Flake site-b

Flake size: Small, medium and large

223 - NY 2756907316

July 1990: There are two exposures of the site on the foot path. The largest concentration is in the north-western exposure, however this is not necessarily the location of the working floor as much of the site is presently obscured by peat. It comprises heavily patinated small, medium and large flakes.

Size: maximum visible length: 6.2m

Concentration: 2 (32)

Flake site-b

Flake size: Small, medium and large

TYPE/PERIOD-GEN/PERIOD-SPEC/Form = Flake site-b/Prehistoric/Neolithic/

CLAU SURVEY NO. = 123, 208-223

VISITS = Quartermaine J & Edmonds M/1/10/1986; Quartermaine J//6/1990

SOURCES =

<1> Desc. text/CLAU (JQ)/Bradley R & Edmonds M/1987/Fieldwork at Great Langdale, Cumbria. 1985-87: Preliminary report./Unpublished interim/

8624 SITE NAME = Harrison Shoulder

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 2864007278 HEIGHT OD = c.475m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

241 - NY 2864007278

A small flake site exposed by footpath erosion; most flakes are on the upslope part of the path and there c.5 flakes in the exposed section. The smallest flakes are in this upper section which may have been the working floor. There is a limited amount of run-off of larger flakes on the lower part of the path and below the path.

Size: length 3.5m width 3m

Concentration: 2

Flake site-c

Flake size: Small and medium

TYPE/PERIOD-GEN/PERIOD-SPEC/Form = Flake site-c/Prehistoric/Neolithic/

CLAU SURVEY NO. = 241

VISITS = Quartermaine J//6/1990

8625 SITE NAME = LOFT CRAG

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 2793807084 HEIGHT OD = 625m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

242 - NY 2793807084 This site was found and described by M Edmonds of Reading University and here follows

his description. 'The site is similar to site 111, and would seem to be one of the sites recently exposed by peat erosion.' The following spring (May 1986) the site was searched for but to no avail because the peat has subsequently covered up the site. Until confirmed this site will be left off the inked archive plans.

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site?/Prehistoric/Neolithic/
CLAU SURVEY NO. = 242
VISITS = Edmonds M & Quartermaine J/28/5/86

8626 SITE NAME = HARRISON STICKLE PATH
LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES
NGR = NY 2859007024 - 2861307057 HEIGHT OD = 460m
1:10000 PLAN = NY 20 NE
DESCRIPTION =

243 - WALL - NY 2859007024 - 2861307057 {prev: 207

This is a length of wall on a gently sloping area of the Harrison shoulder. It is heavily tumbled and is visible as a linear bank of medium, rounded earthfast stones. The West end terminates a long way before the Dungeon Ghyll force. There are no other archaeological features associated with it, and thus no obvious purpose for this intermittent stretch of wall. The path crosses it near the Western end.

Size: length : 40m width : 2.5m - 1.5m height : 0.2m

244 - NY 2841007122, 2841307116 & 2840207116

Three small flake exposures exposed by National Trust turf cutting during the repair of the adjacent Harrison Path.

244a (NY 2841007122)

A seemingly small site with is a small concentration of thick patinated small to medium flakes at the north-eastern corner of the rectilinear exposure. The flakes are within peat rather than upon the underlying mineral soil and there are flakes within the peat in the eastern section. There is an adjacent large, flat topped boulder which could have been used as a seat in antiquity during the working of the axes.

Size: 1.4m x 0.7m (visible extent)

Concentration: 2 (12)

Flake size: Small & medium

244b (NY 2841307116)

Within the exposure is a high flake concentration and comprises thick white patinated flakes within peat. There are large to medium stones in association with the flakes, and combined they extend throughout the limited exposure. The extent of the site is evidently far greater in size than that of this turf cut trench.

Size: 0.7m x 0.4m (extent of exposure)

Concentration: 3 (70)

Flake size: Small, medium and a few large

244c (NY 2840207116)

An exposure of a much larger site; however the concentration is low and does not extent uniformly over the whole exposure; there is a small area seemingly devoid of flakes at the north-western end of the exposure. The flakes are moderately patinated and are mixed with non hornstone scree.

Size: 0.8m x 0.5m (extent of exposure)

Concentration: 1 (5)

Flake size: Small, medium and a few large

245 - NY 2835007128

A small site exposed as a result of turf cutting by National Trust path repair team working on the adjacent Harrison Path. The exposure has revealed a coarse scree which includes a relatively low, scattered flake concentration. The flakes are mainly large in size and are moderately patinated. The flakes are both on and within the scree and are capped by peat/turf. The flakes are concentrated within the north-western side of the exposure but the nearby site 174 excavation trench (Reading University) is on the south-east side, hence this is probably not a part of 174.

Size: 2m x 1.4m (visible extent)

Concentration: 2 (12)

Flake size: Medium and large

246 - NY 2834107132

The flakes extend throughout almost all of an exposure caused by National Trust turf cutting for the adjacent Harrison Path. The flakes are moderately patinated (though some are white patinated) and are on a light to coarse natural scree. The flakes are concentrated within the north-western part of the area. It is a fairly low concentration of flakes. There is another exposure between sites 245 and 246 which contains no flakes, hence they do not appear to be parts of the same site.

Size: 3.2m x 2m (visible extent)

Concentration: 2 (19)

Flake size: Medium and large

247 - NY 2841307171

A small, localised, well-preserved site exposed by National Trust turf cutting for the adjacent Harrison path. It is located on the top of a flat topped promontory, above the main Harrison Path sites. A lot of turf been cut from the surrounding area and have not revealed flakes. The site is therefore relatively isolated and is not a part of more extensive workings. The flakes have light to moderate patination and there are also some thick white patinated flakes; the site was covered by thin peat/turf cover and the flakes are on mineral soil. There is a well-defined edge of the flake deposit towards the east and the site is on fairly flat ground; it would appear to be a small working floor. The flakes are of all sizes, although there is a significant concentration of smaller flakes on the eastern side of the site, which may hint at a division of the manufacturing process; coarse working and trimming stages undertaken by different individuals. There is a large flat topped stone by the flakes which may have been used as a seat.

Size: 2.8m across

Concentration: 3 (110)

Flake size: Small, medium and large

248 - NY 2837107173

A low concentration flake site partly exposed by National Trust turf cutting for the adjacent Harrison Path. The flakes are on mineral soil capped by thin peat; the flakes are white patinated. The site is adjacent to an area of very coarse scree. Two nearby turf cuttings, each no more than 3m away did not reveal flakes, therefore the extent of the site is localised.

Size: 2.4m x 1.0m (visible extent)

Concentration: 1 (6)

Flake size: medium

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Wall/// Flake site-c/Prehistoric/neolithic

CLAU SURVEY NO. = 243-248

VISITS = Quartermaine J/30/5/1985 & 20/8/1992

8627 SITE NAME = MIDDLE FELL FARM TRACK

LOCAL AUTHORITY = SOUTH LAKELAND PARISH = LAKES

NGR = NY 27640616 HEIGHT OD = c.130m

1:10000 PLAN = NY 20 NE

DESCRIPTION =

252 - NY 27640616 {prev: 215

This is a site reported by C A Ellwood. Despite searching, only 3 fairly dubious, isolated flakes were found and also an occasional lump of hornstone type rock, so the location of the site cannot be confirmed. If there was a site it will have been covered by the reconsolidation of the track. The coordinates are obtained from C A Ellwood's description and as the site has not been confirmed it is not marked on the archive plan. Here follows a summary of his description: - 'The site I found years ago and showed to Tom Clare has now been hidden by the reconsolidation of the road. There are a few chips on the side of the road now and also a few larger fragments with white patina'.

TYPE/PERIOD-GEN/PERIOD-SPEC/FORM = Flake site-cd/Prehistoric/Neolithic/
CLAU SURVEY NO. = 244
VISITS = Ellwood C A//