THE SOUTH WEST COAST PATH 'UNLOCKING OUR HERITAGE' PROJECT: HIGH PEAK CAMP, OTTERTON, EAST DEVON

NGR SY 10342 85956

Results of Archaeological Excavation

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AC archaeology

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RESULTS OF ARCHAEOLOGICAL EXCAVATION

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Summary

Archaeological works were undertaken by AC archaeology at High Peak, near Sidmouth, Devon, during September 2012. Five trenches were excavated, both adjacent to parts of the site investigated during earlier works in the 1960s and in areas not previously examined. The project was carried out in order to gain a better understanding about how the site was used during the Neolithic and post-Roman/Early Medieval periods.

The excavation recorded further evidence for Neolithic activity across the site. Worked flint and chert numbering 1183 pieces and weighing 10,815g were recovered, including numerous flakes, cores and tools. There was also a significant amount of debitage from flint knapping. These finds indicate that people were making use of flint and chert native to High Peak itself, as well as bringing flint to the site from nearby sources. Early Neolithic pottery consisting of 39 sherds weighing 168g are from types typical of South-West England. The 2012 corpus was compared and added to the pottery from the 1960s excavations. Few Neolithic features were exposed and only a single posthole dated to this phase from which charred plant remains were recovered and identified. No new data was therefore provided regarding the possible identification of the site as a causewayed enclosure.

The post-Roman activity at High Peak comprised the occupation of the highest point of the site with associated earthworks. Trenches positioned across the earthworks recorded the inner ditch, previously investigated in the 1960s. In addition, an outer ditch was identified. The perimeter ditches measured up to 3.7m wide and 1.8m deep and were flanked by the remains of earth ramparts. These may have been furnished with timber revetting, as indicated by the presence of stake holes between the second ditch and its rampart. Eleven pottery sherds weighing a total of 43g were recovered from the fills of the post-Roman ditches. These date from the late 5th or early 6th century (c. 450-550AD), which is further supported by radiocarbon dates. Two of the sherds were probably from one of the same vessels discovered during the 1960s. The other nine sherds have a different fabric and are probably from a vessel not previously identified. The pottery is of Late Roman Amphora type, indicating continued trade between the Mediterranean and the South-West of England subsequent to Roman occupation.

1. INTRODUCTION

1.1 An archaeological investigation of High Peak Camp on the cliff top between Budleigh Salterton and Sidmouth, East Devon was carried out by AC archaeology from the 4th to the 17th September 2012. The work was commissioned by The South West Coast Path National Trail Team as part of the RDPE funded 'Unlocking Our Coastal Heritage' project.

1.2 High Peak Camp is a Neolithic and post-Roman/Early Medieval occupation site. It is sited on Triassic period sandstones with a remnant capping of mixed clay with flints. It is a Scheduled Monument (No. 100387) and lies in the Jurassic Coast World Heritage Site. The route of the South West Coast Path formally runs along the cliff edge, passing through the monument, but in recent years has been diverted inland to avoid the unstable cliff edge. Within the monument, on top of the inner earthwork in the vicinity of the OS triangulation (trig) point at a height of 157m aOD, there is visitor erosion, while the southern end of the monument has been significantly disturbed by animal burrowing. For these reasons, but more importantly the unstable cliff geology

upon which the monument is situated, High Peak Camp is on the English Heritage 'Heritage at Risk Register'.

1.3 The window of opportunity provided by the felling and ahead of afforestation allowed the work reported here and provided an opportunity for community engagement through volunteer participation and an open day allowing the public to visit the excavations in progress. Ultimately, the project has provided an opportunity to inform improved interpretation on-site and off-site through information boards.

2. ARCHAEOLOGICAL BACKGROUND

2.1 The 'Unlocking Our Coastal Heritage' project, aims to improve the visitor experience along the South West Coast Path as part of a Sustainable Rural Tourism theme. It has been awarded European grant aid through the Rural Development Programme for England (RDPE). The project was delivered through the Rural Development Agency (RDA), the South West Coast Path National Trail Team (SWCPT) and a number of local partners and landowners. The High Peak project had the support of Devon County Council (DCC), The East Devon Area of Outstanding Natural Beauty Partnership (ED AONB) and Clinton Devon Estates. A number of archaeological sites have been selected on the basis that this funding will further aid their conservation, enhancement and future management. The sites were chosen on the basis that they were on or adjacent to the South West Coast Path and that they are currently at risk of being irreparably damaged or lost, or could be made more accessible for wider audiences (Horner, DCC 2010). The site was chosen on the basis that it is currently at risk of being irreparably damaged or lost. The extant monument consists of a segment of an earthwork rampart with a ditch on the west side, and a partially surviving second smaller rampart to the north (Ministry of Works 1964). The main rampart has previously been imagined to have originally encircled the highest point of the hill with remainder of the circuit lost to cliff erosion (Pollard 1966, Fig. 13).

2.2 No traces of the earthworks are shown on the tithe map of 1844, with the site appearing to form part of a large plot recorded in the apportionment of 1843 as an area of *Furze* (rough ground) and known as *High Peak*. Both the Ordnance Survey 1st and 2nd edition 25-inch maps of 1889 and 1905 show the area surrounding High Peak as *High Peak Plantation*, with the area of High Peak Camp itself remaining treeless. This area appears to be rough ground, with the main earthwork, terrace area to the west and outer earthworks to the northwest being clearly depicted. The monument is recorded as '*Camp*' on both maps, with a trig point shown in the same location as it appears today. Sheila Pollard (1966) notes that the site was 're-afforested' in the winter of 1961-62 and its distinctive forest of pines marked out High Peak in the coastal landscape until it was clear felled in 2012.

2.3 High Peak Camp was visited in 1847 by the antiquarian Rev. R. Kirwan who excavated a layer eroding from an exposed section of the earthwork on the cliff face, which contained artefacts he considered to be pre-Roman date (DCCHER No. MDV15126, 15127 and Kirwan 1871). The antiquarian Peter Orlando Hutchinson, a resident of Sidmouth, visited the site several times and published a detailed plan along with claims to be 'the discoverer of this hill-fortress' before Kirwan in 1842 (Hutchinson 1849, 142). He also made several paintings of the hill and its earthworks (see Butler 2000 and 2010). A tumulus shown on Hutchinson's plan to the south of the rampart is believed to be the remains of a bonfire and sheep roast organised by Lord Rolle (DCCHER No. MDV15128). The site was further investigated in 1930, when George Carter undertook an excavation recovering what he claimed to be Iron

Age and Roman pottery together with ox, goat and pig bones (Carter 1930). Fox and Ravenhill (1959: 81) later concluded that the site was possibly rebuilt in Roman times, being associated with Stoke Hill signal station, some 19km to the northwest.

2.4 Sheila Pollard undertook a series of excavations at High Peak in 1961 and again in 1964 (Pollard 1966). She concluded that the site had initially been occupied during the Early Neolithic period (3830-3130BC) and was re-occupied during the post-Roman/Early Medieval period (5th-6th centuries AD).

2.5 The archaeological works at High Peak Camp reported here included a topographical survey and the subsequent excavation of targeted trenches. A large portion of the site is presumed destroyed by cliff erosion, by which it continues to be threatened, and has been further disturbed by forestry plantation, animal burrowing and visitor erosion. It was therefore selected for excavation because the loss of such a finite resource may be mitigated by the data gained through topographical survey and excavation. The results of this investigation will provide information for the future conservation, enhancement and management of the area. A proposed geophysical survey of the site was abandoned due to the density of tree stump cover.

3. AIMS

3.1 The survey and excavation of the site was to enable a clearer understanding of the monument before further losses to its integrity. The overall aim of the work was to provide a clearer understanding of the archaeological resource and help with future conservation and management issues. The excavation was undertaken in accordance to a Written Scheme of Investigation prepared by AC archaeology (James 2012).

3.2 The principal aims of the work were twofold; first, the primary aim was as a 'rescue excavation' to provide information on the importance, character, date and complexity of the archaeological features and deposits contained within and adjacent to the monument. The secondary aim was to investigate the monument and adjacent area in order to allow for a better understanding of the Neolithic and post-Roman occupation evidence and to further determine the relationship (if any) between the surviving monument and the terraces, which lie downslope. The location of the excavation trenches was informed by the results of the earthwork survey and took into consideration the position of the excavations undertaken in 1961 and 1964.

4. METHODOLOGY

4.1 Five trenches were excavated (see Fig. 1). The stumps from recently harvested trees prevented mechanical removal of topsoil and so the majority of the excavation was undertaken by hand. All features were excavated by hand. The trenches opened an area of 89.05m^2 in total.

4.2 The site was recorded in accordance with the AC archaeology pro-forma recording system, comprising written, graphic and photographic records, and in accordance with AC archaeology's *General Site Recording Manual, Version 2 (Revised August 2012)*. Overall site plans were drawn at a scale of 1:50, with detailed plans drawn at 1:20 and sections of excavated features at 1:10. All levels have been related to Ordnance Datum.

5. RESULTS

5.1 Introduction

The excavation revealed archaeological deposits in all trenches except Trench 1 and these are described below. It should be noted that it has only been possible to locate with any accuracy one of Pollard's trenches (Trench B) which was revealed in the topsoil removal of Trench 2. Disturbance from tree plantation was found to be widespread, although discrete features did survive.

5.2 Trench 1

The trench was located in the northwest area of the terrace. An area of 3 x 3m was stripped which was reduced to a 1 x 3m sondage. The topsoil (100) consisted of dark greyish brown loose friable sandy silt to a maximum depth of 0.20m. Below this was (218) a light yellowish brown friable loose silty sand with natural angular chert which was distinct from the natural subsoil of dark yellowish brown loose friable coarse sand. There were no finds or features.

5.3 Trench 2 (Plan Fig. 3a and sections Figs 3b-d; Plates 1, 6-9)

The trench was located directly adjacent and to the south of Pollard's Trench B the backfill of which was identified. An area of 4.40 x 7.00m was stripped. The topsoil (200) consisted of a mid brownish grey loose silty sand to a maximum depth of 0.49m. A ditch (F202), four postholes (F211, F213, F220 and F222), a possible rampart (218) and a probable tree throw (F216) were present in this trench.

Ditch

F202 was a large N-S aligned ditch with a maximum depth of 1.42m and width of 4.06m. It had moderately steep sides with a possible rounded terminal end at its base. The fills are consistent across the base and do not indicate that this is a re-cut or earlier feature. The upper fill (203) consisted of a mid light brown firm sandy loam up to 0.51m thick. It appears to be the result of homogenous silting rather than a deliberate backfill. This overlay a secondary fill (204) of mid yellowish brown soft sandy loam up to 0.28m thick which also appears to represent natural silting of the ditch. The layer below this consists of three lenses (205, 208 and 215) each deposited in succession with (215) the earliest followed by (208) and then (205). Fill (205) is a mid dark greyish brown soft sandy loam up to 0.18m thick and rich in charcoal and probably represents a dump from mixed occupation debris. Fill (208) is very similar to (204) and may represent natural infilling upon which fill (205) was dumped. Fill (215) was a thin layer of re-deposited natural subsoil which appears to have fallen from the eastern lip of the ditch. The primary fill (206) of the ditch consisted of a light brownish yellow soft silty sand with a maximum thickness of 0.28m. It appeared to be a natural fill of redeposited sand. Fills (204 and 206) contained a sherd of amphora each which probably derived from the same vessel.

On the west side the ditch cut layer (217) and with layer (210) may represent upcast from ditch digging used to level the area in front of the ditch. Both layers were cut by postholes (see below) and lay directly on natural subsoil (227), perhaps indicating that the turf had been stripped for rampart building. Layer (217) consisted of mid brown firm silty sand with a maximum thickness of 0.31m and layer (210) also consisted of mid brown firm silty sand.

Overlying the ditch fills (203 and 204) on the east side of the ditch was a stoney deposit (201) set in mid brownish yellow firm clay loam which may represent rampart material which has slumped after the ditch has been filled.

Postholes

Posthole F211 was round with steep sides and a flat base. It was 0.22m in diameter with a depth of 0.12m. Its fill (212) was a dark grey friable clay loam with common charcoal.

Posthole F213 was round with near vertical sides and a flat base. It was 0.19m in diameter and 0.23m deep. Its fill (214) was a mid-dark grey soft silty sand with occasional charcoal and gravel. Eight sherds of Early Neolithic pottery made from two different fabrics were recovered from the fill. It was cut by ditch F202.

Posthole F220 was round with steep sides and a blunt pointed base. It had a diameter of 0.24m and a depth of 0.35m. The fill (221) was a dark yellowish grey soft sandy loam with occasional gravel and moderate charcoal; a single packing stone was present laying in a near vertical position hard against the side of the posthole.

Posthole F222 was round with vertical sides and a concave base. It was 0.18m in diameter and has a depth of 0.23m. Its fill (223) was a dark yellowish grey soft sandy loam with moderate charcoal flecks.

Postholes F211, F220 and F222 formed a tight cluster on the east side of ditch F202. Their fills were similar and they were all cut ditch upcast (210). Posthole F213 clearly pre-dates the ditch (F202) and was almost certainly Neolithic in date.

Possible rampart

In the western end of the trench possible rampart material was identified (218 and 224). Rampart material (218) consisted of a light brownish soft clay loam with occasional small (<0.15m) sub angular stones. It was up to 0.36m thick. The layer above this (224) consisted of light greyish yellow firm clay loam up to 0.16m thick and was also probable rampart material. Behind and upslope of the probable rampart a layer (209) of mid yellowish grey firm sandy loam had accumulated. This layer sealed the postholes F211, F220 and F222.

Tree throw

F224 was a crescent-shaped feature with irregular sides and a maximum depth of 0.24m. Its fill (216) consisted of a mid-dark brown soft silty sand containing a small amount of gravel. The feature probably had a natural origin and the shape suggested a tree throw. However, the fill contained four sherds of Early Neolithic pottery and four small pieces of worked flint. It was sealed by a buried soil (219) which consisted of a mid brown soft sandy loam with occasional small sub angular stones.

5.4 **Trench 3** (Plan Fig. 4a and sections Figs 4b-d; Plates 1, 10-12)

Trench 3 was located parallel to and approximately 2m north of Pollard's Trench F. The trench consisted of a 1.00 x 8.50m sondage with a 1.75 x 2.5m extension to the south opened to reveal the extent of F307. It contained a ditch (F302), possible rampart material (310) and a tree throw (F307). The topsoil (300) was a light to mid grey brown loosely compacted silty loam with common root disturbance and trunks from felled trees and contained large numbers of flint artefacts. The sondage was not completely excavated to the natural (309) which consisted of a brownish yellow clay, with some dark red or dark green banding and varying amounts of flint gravel.

Ditch

Ditch F302 was revealed in the eastern end of the sondage. It was only partially revealed but appeared to be following a N-S alignment. Four fills were recorded but

only two (304 and 306) were consistent across the 1.00m length of ditch excavated. The upper fill (306) consisted of mid yellow-brown with occasional patches of orange and grey soft loamy sand containing some small gravel. This appears to represent a natural filling of the ditch hollow. The basal fill (304) consisted of dark yellow and brownish grey moderately compacted mixed silty clay which appears to be redeposited natural that has fallen in from the edge and top of the ditch. In the south end of the exposed ditch the basal fill (304) was divided from a very similar fill (305) by a deposit (303) of dark blackish grey soft silty loam containing charcoal and flint artefacts. This appeared to be a deliberate dump deposit in the ditch which was already filling with weathered material from its sides.

Rampart material

To the west of ditch F302, although with no direct relationship to it, was a deposit (310) of light yellowish brown compact sandy loam with common sub angular stone of between 0.05 and 0.25m in size. It was excavated in the sondage, but not completed to its base and its surface was revealed continuing to the south in the trench extension. It was cut by tree throw F307.

Tree throw

A probable tree throw F307 had difficult to discern edges and an irregular profile. The fill (308) consisted of a mid brown-yellow soft silty clay loam with flint gravel and some flint artefacts. F307 cuts the rampart material (310) and a subsoil or buried soil deposit (301) consisting of light-mid yellow brown loamy sand with fairly common small (0.05-0.10m) flint nodules.

5.5 **Trench 4** (Plan Fig. 5a and sections Figs 5b-c; Plates 2, 12)

Trench 4 was located in the south of the terrace area. It was 7.50 x 2.80m with an extension to the west of 1.75 x 1.0m. A ditch (F402) was the only feature revealed. The topsoil (400) was a mid yellowish grey soft sandy loam which continued to a maximum depth of 0.32m. There was evidence of root and tree disturbance, particularly a patch (408) which had also disturbed the top of the ditch F402. The trench was excavated to the top of the natural subsoil (401) consisting of light yellow compact clayey sand.

Ditch

Ditch F402 was only partially exposed in the southern end of the trench. The northern edge of the ditch revealed a steep stepped side falling to a shallow concave base 1.30m deep. The fills of the ditch (403, 404, 405 and 407) all appeared to be the result of the natural infilling of a ditch which was left open when abandoned. Upper fill (405) consisted of mid brown friable sandy loam 0.47m thick. This was above fill (407) consisted of mid-light yellowish brown firm sandy clay 0.56m thick. Below this fill (404) was a mid brown friable sandy loam with common small gravels and grit. Basal fill (403) was up to 0.42m thick and consisted of mid brown soft silty sand with occasional charcoal. Worked flint and one small piece of slag came from the fills.

5.6 **Trench 5** (Plan Fig. 6a and section Fig. 6b; Plates 3-4, 13-14)

Trench 5 was placed to the north of the terrace, between Pollard's Trenches A and C, and in an area where she proposed earthworks related to an entrance into the post-Roman fort. It was orientated NW-SE and was 7.90 x 2.50m. The topsoil (500) consisted of a mid yellowish grey friable loamy sand with a maximum depth of 0.17m. The natural (501) was a clay of mixed colours with browns, yellows and greens and some dark red and dark green banding. A ditch (F502) and possible rampart material (513) were revealed in the trench.

Ditch

The ditch F502 is an NE-SW aligned ditch with a maximum width of 3.72m and depth of 1.82m. The majority was exposed for length of 1.2m with a smaller cut of 0.40cm to reach the base. The basal fills of the ditch (503 and 504) was redeposited natural derived from ditch edge erosion and weathering. Fill (504) contained nine pottery sherds from a single amphora and slag. Secondary fill (505) was a very compact mix of sandy clay with frequent stones of sandstone and flint with charcoal and some slag. This may represent collapsed rampart material. Above this, but only on the SE side of the ditch, a fill layer (506) consisted of dark greyish yellow compact sandy clay with frequent flint gravel appeared to have slumped, possibly from an internal rampart. A very small exposure of material upcast from the ditch to form the internal rampart may be represented by deposit (509) which consisted of mid brownish yellow soft sandy clay. Fill (507) consisted of a mid yellowish brown compact loamy sand with some larger stones that may indicate some further collapse of rampart material from the NW side of the ditch but for the most part was consistent with low energy filling of the ditch hollow. Fills (506 and 507) were covered by fill (508) which consisted of a mid brownish yellow friable loamy sand with some larger stones perhaps indicating further rampart erosion, but for the most part this represented a low energy fill of the ditch and contained worked flint which must be residual.

Rampart material

Deposits (511 and 513) on the NW side above the ditch may represent the remains of rampart material. Only deposit (511) was excavated with deposit (513) revealed in plan. Deposit (511) consisted of a mid grey compact loamy sand with common charcoal indicating that the material was derived from an area of occupation for use as the base for the rampart external to the ditch. It sat on top of layer (510) which was a possible buried subsoil or disturbed natural consisting of mid orange yellow soft loamy sand. Deposit (513) consisted of pale yellow grey compact loamy sand which looks like upcast from the ditch used to construct an external rampart. No finds came from the rampart material.

6. THE FINDS by Naomi Payne with contributions from Henrietta Quinnell, Maria Duggan and Roger Taylor

6.1 Introduction and methodology

All finds recovered on site during the excavation were retained, cleaned and marked where appropriate. They were then quantified according to material type within each context and the assemblage was scanned to extract information regarding the range, nature and date of artefacts represented.

Sizeable assemblages of worked flint and prehistoric pottery were recovered, as well as a small but significant group of post-Roman/Early Medieval sherds and small quantities of slag, animal bone, shell and a possible ceramic building material fragment. Other finds included a group of beach cobbles and pebbles which must have been brought to the site. A few of these are in the size range expected for sling stones.

No bone from a secure context was recovered.

The finds are summarised in Tables 1 and 2, below.

6.2 **Prehistoric pottery** by Henrietta Quinnell with petrographic comment by Roger Taylor

Introduction

The assemblage consists of 39 sherds weighing 168g (see Table 3). Only two contexts with pottery are interpreted as Neolithic, (214) fill of posthole F213 with eight sherds, and (216) fill of tree throw F224 with four sherds. The remainder of the material appears to have been redeposited. The mean sherd weight of the assemblage is 4.3g with that from the Neolithic features only slightly different at 4.8g.

Abrasion

Sherds are generally fairly fresh although a few edges and faces appear to have been damaged by bioturbation. There is no noticeable difference between abrasion on the majority of sherds presumed to be redeposited and on the small number from Neolithic contexts (214 and 216).

Cont -ext	Context Description	Worked Flint/Chert		Prehistoric pottery		Post-Roman pottery		CBM	
		No	Wt	No	Wt	No	Wt	No	Wt
100	Topsoil	35	277						
101	Stony layer	12	158						
200	Topsoil	147	2120						
201	Slumped rampart material	59	397						
203	Upper fill of ditch F202	73	515	9	5				
204	Fill of ditch F202	245	1790	11	30	1	3		
205	Fill of ditch F202	33	464	1	3				
206	Basal fill of ditch F202					1	6		
209	Layer	19	114	3	16				
212	Fill of posthole F211			2	4				
214	Fill of posthole F213	4	34	8	22				
216	Fill of tree throw F224	2	6	4	38				
218	?rampart material	22	189	3	29				
219	Buried soil	31	318	5	23				
300	Topsoil	116	1456						
301	Subsoil	91	1134						
303	Fill of ditch F302	9	24						
305	Third fill of ditch F302	9	86						
308	Fill of possible tree throw	10	37						
400	Topsoil	22	387						
403	Basal fill of ditch F402	1	23						
404	Fill of ditch F402	9	67						
405	Upper fill of ditch F402	7	30						
407	Fill of ditch F402	2	1						
500	Topsoil	6	128						
504	Fill of ditch F502					9	34		
505	Fill of ditch F502	17	147					1	3
508	Upper fill of ditch F502	17	232						
511	?rampart material	3	31						
Totals		1001	10165	46	170	11	43	1	3

Table 1. Summary of worked flint and ceramic finds by context (weights in grams)

Fabrics

The sherds are generally fired reduced and 5YR 5/4 dark grey though there are some oxidised patches on exterior surfaces, 5YR 5/6 yellowish red. They appear to

be well made. They are in two fabrics, Fabric 1 sparse/moderate crushed vein quartz inclusions and smaller inclusions of other materials in a fairly smooth clay, and Fabric 2 as Fabric 1 but without vein quartz. The inclusions of vein quartz are generally very coarse and range in quantity from sparse to moderate. Five examples of Fabric 1, which appeared to have considerable variation, including the three illustrated vessels (see Fig. 5), and one example of Fabric 2 were examined microscopically by Roger Taylor.

Cont-ext	Context Description	Cobbles and pebbles		Animal Bone		Slag		Burnt flint		Shell	
		No	Wt	No	Wt	No	Wt	No	Wt	No	Wt
101	Stony layer	1	346								
200	Topsoil	1	33					1	20	1	1
203	Upper fill of ditch F202							2	147		
204	Fill of ditch F202	1	560							1	1
205	Fill of ditch F202	1	89								
209	Layer	2	83								
218	?rampart material	1	10								
219	Buried soil	2	66								
300	Topsoil	3	201					1	73		
301	Subsoil	1	28	1	1						
305	Fill of ditch F302	3	157								
306	Upper fill of ditch F302	1	1646								
400	Topsoil							1	34		
407	Fill of ditch F402					1	6				
500	Topsoil	1	90								
505	Fill of ditch F502	1	10			1	5	2	188		
506	Fill of ditch F502					1	379				
507	Fill of ditch F502	1	1950								
508	Upper fill of ditch F502	1	45								
511	?rampart material	1	36								
Totals		22	5350	1	1	3	390	7	462	2	2

Table 2. Summary of other finds by context (weights in grams)

Fabric 1 P1 (218) *Vein quartz* – transparent colourless to translucent white, sharply angular to sub-angular grains, 0.5-3mm: *quartz* – transparent to translucent angular and some rounded grains up to 0.3mm: *mica* – muscovite, cleavage flakes with abraded edges up to 0.1mm: *sandstone* – sparse white silicified sub-angular fragments, 0.2-1.2mm: *shale* – a scatter of dark laminated tabular fragments and empty cavities 2-3mm long: *tourmaline* – rare black vitreous grains, 0.2mm: *matrix* – clay with fine quartz sand. *Comment*. An Upper Greensand derived fabric with the shale fragments indicating clay sourced from the Lias.

Fabric 1 P2 (204) *Vein quartz* – translucent to white opaque angular grains, 0.5-1.5mm: *quartz* – transparent to translucent angular and some well-rounded and polished grains, 0.1-1.6mm: *sandstone* – mainly white silicified and chalcedonic fragments merging into chert, 0.5-2mm: *chert* – sparse grey translucent sub-angular and angular fragments, 0.8 and 2mm: *tourmaline* – rare black vitreous sub-rounded

grains, 0.2mm: *gypsum* – rare translucent elongated fibrous grains, 1.1mm: *matrix* – clay with fine quartz sand. *Comment*. Upper Greensand derived fabric with Lias clay and probable added vein quartz.

Fabric 1 P3 (219) *Vein quartz* – a scatter of translucent white angular grains, irregularly distributed, 0.5-3.5mm: *quartz* – transparent to translucent angular to sub-angular and rare polished grains, 0.05-0.3mm: *sandstone* – white silicified fragments, 0.8-1.5mm: *chert* – translucent grey white mottled and brown chalcedonic angular fragments, 0.2-3.5mm: *matrix* – finely sandy clay. *Comment*. An Upper Greensand derived fabric with substantial amounts of chert and added vein quartz.

Fabric 2 (218) *Quartz* – transparent to translucent colourless angular to rounded and some polished grains,0.1- 1.5 mm: *sandstone* – sparse white silicified angular fragments, 2.5mm: *chert* – grey and white tabular angular fragments, 2 & 3.5mm: *tourmaline* – a scatter of black vitreous rounded and some polished grains, 0.1-0.3mm, rarely 1.1mm: *limonite* - soft brown sub-rounded grains1-4mm: *matrix* – silty clay. *Comment*. An Upper Greensand derived fabric.

General comment

The sherd group all demonstrate their local origin by their mineral content derived from the Upper Greensand. Both P1 and P2, Fabric 1, have features which indicate a probable clay source from the Lower Lias nearby to the east, and the general character of the other sherds is consistent with this. Clay appears to have been brought into the area of the site and mixed with inclusions such as sandstone, quartz sand and chert derived from the Upper Greensand. The more plentiful Fabric 1 also has added crushed vein quartz which was probably sourced from cobbles on a local beach. Only the addition of vein quartz distinguishes Fabric 1 from Fabric 2.

Illustrated vessels (Fig. 5)

P1 From (218) possible rampart material Fabric 1. Rim, internal diameter *c.* 220mm, rounded, with slight outer beading, from curved neck of carinated bowl. The outer surface, although not shiny, has been well burnished so that few of the vein quartz inclusions are visible.

P2 From (204) fill of post-Roman ditch F202 Fabric 1. Part of angle of carinated bowl, well burnished exterior.

P3 From (219) buried soil under post-Roman rampart Fabric 1. Rim, internal diameter *c.* 210mm, pointed top, from straight-sided open bowl. Surface finished as P1.

Non-illustrated vessels

Fill (204) contained a scrap from a rim as P1 but in Fabric 2, and fill (205) a rim from a small bowl with a flattened top Fabric 2 and a sherd from the angle of a carinated bowl Fabric 1. The fill (216) of a probable tree throw contained a rim as P3 in Fabric 1, and probable post-Roman rampart material (218) contained a rim as P3 in Fabric 2.

Comment on the assemblages from 1961-4 and 2012

To assist the understanding of the assemblage, the material from the 1961-4 (Pollard 1966, 44-5) excavations held by the Royal Albert Memorial Museum, Exeter, was re-examined by the authors. This consisted of *c.* 125 sherds: no weights were published, but on the data from 2012 would have weighed *c.* 540g. The two assemblages together consist of 164 sherds perhaps weighing *c.* 700g.

Con-text	Description	Fabric 1	Fabric 2	Totals
203	Upper fill post-Roman ditch [202]	4/5 + crumbs		4/5
204	Below (203) in [202]	1/12 **P2,** 7/15	2/2	10/29
205	Below (203) in [205]	1/2	1/2	2/4
209	Rampart material	3/15		3/15
212	Posthole cut in post-Roman rampart	1/5		1/5
214	Fill of post-hole [213]	6/17	2/3	8/20
216	Fill of tree throw	3/21	1/17	4/38
218	Possible rampart material	1/21 **P1**, 1/1	1/7	3/29
219	Buried soil under post-Roman rampart	1/13 **P3**, 2/7	1/3	4/23
Totals		31/134	8/34	39/168

Table 3: Details of pottery by sherd numbers and weight in grams

Twelve sherds had been identified as similar to 'f' ware from Hembury: the subsequent work of Peacock (1969) demonstrated that 'f' ware was gabbroic, originating in the Lizard in Cornwall. Five sherds were confirmed by us as gabbroic, (Pollard 1966, Fig. 9, Nos 1, 2, 3, 5 and one unillustrated piece): the remaining sherds are likely to have been finely made examples of local fabrics. This means that the percentage of the assemblage which is gabbroic on current data is around 3%. This may be compared with percentages of the gabbroic component in the Early Neolithic assemblages at Hembury of 10%, at Haldon and Hazard Hill of between 5% and 10% and at the Raddon causewayed enclosure of 6%: these figures come from a reworking of the assemblages in the late 1990s (Quinnell and Taylor 1999, 96-7). Other Early Neolithic assemblages in East Devon containing gabbroic sherds are Seaton, with nearly all of a small assemblage (Smith 1981a) and Wayland's, Tiverton, with a single sherd (Leverett and Quinnell 2010, 4). A sherd has also been identified in a pit group at Hayes Farm near Exeter (Quinnell 2012).

Also previously identified in the 1960s assemblage were 'a small number' of sherds with 'some mineral inclusions apparently derived from the granite'. A single sherd appeared to us to be broadly granite derived and was examined microscopically, providing the following description: *Quartz* – transparent to translucent angular to sub-rounded grains, 0.1-1mm: *feldspar* – soft white altered sub-angular grains, 0.1-1.5mm and less altered greyish cleaved grains 0.1-1mm; *mica* – biotite, a scatter of dark brown cleavage flakes, 0.1-0.5mm: *tourmaline* – sparse black vitreous sub-angular grains, 0.2-0.5mm: *rock fragments* – micaceous slate, sparse silvery buff tabular fragments, 0.5-1.5mm, rarely 3mm: *matrix* – finely micaceous slightly silty clay. *Comment*. A granite derived fabric sourced outside the granite margin. The abraded state of many grains points to a stream sediment source. The fine-grained sand temper suggests some degree of preparation. The review in the late 1990s referred to above identifies small numbers of sherds in a variety of granitic derived fabrics at Hembury, Haldon, Hazard Hill and Raddon (Quinnell and Taylor 1999, 98).

The remainder of the 1961-4 assemblage was reported as containing angular vein quartz, sand and occasionally flint. There were also a few sherds reported as 'vesicular'. All the inclusions except vein quartz may derive from the Upper Greensand. Upper Greensand itself does not weather to clay and the material used for inclusions could have been deposited in clays some distance from the Upper Greensand itself. The clay body is smooth and is probably Lias Clay from broadly the Lyme Regis area. One or two pieces have small limestone inclusions which support this source. Here the 'vesicular' sherds identified by Pollard are of interest. Their clay body is much the same as the other sherds. It is difficult to be certain what inclusions have leached out, but some have a flattish tabular shape, suggestive of gypsum. Gypsum forms on clays as limestone decays and tends to be liable to leaching. The

presence of gypsum in some of the clay confirms the broad clay source as Lias on the Devon/Dorset border. This identification of gypsum is supported by the actual gypsum identified in a 2012 sherd (see above). Most of the 1961-4 assemblage contains crushed vein quartz, and, as in the 2012 assemblage, is likely to have come from vein quartz cobbles on East Devon beaches.

The use of Lias clay mixed with Upper Greensand inclusions has previously been identified in a small assemblage of Early and Middle Neolithic date at the Donkey Sanctuary, Salcombe Regis (Quinnell and Taylor 2012): there vein quartz was not added. Inclusions of chert and flint deriving from the Upper Greensand occur regularly in the sizeable assemblage from Membury (Raymond 2006) and in the pit group from Long Range (Laidlaw 1999): vein quartz was not found on either of these sites. Chert and flint inclusions have also been noted by one of us (RT) in a rapid review of the Hembury assemblage, again in sherds which do not contain vein quartz. It is apparent that Upper Greensand derived inclusions are common in Early Neolithic assemblages in East Devon. Whether their mixing with Lias clay was only coastal, at the Donkey Sanctuary and High Peak, or more frequent, must await re-examination of the clay matrices from the inland East Devon sites.

The eight vessels present in the 2012 assemblage are either carinated bowls or simple open bowls. The simple plain forms and lack of decoration, both of the 2012 vessels and of the 1961-4 assemblage, are entirely typical of Early Neolithic Hembury or South Western Bowl pottery: the most extensive range of illustrated forms is provided by the report on the Carn Brea, Cornwall, assemblage (Smith 1981b). The forms present at High Peak are carinated bowls and a range of open or neutral straight-sided bowls with pointed or slightly flattened rims, all forms of which occur regularly on sites in Devon and Cornwall. There is a long standing discussion as to whether carinated bowls represent the earliest form present in most of Britain (see Sheridan *et al.* 2008), but carinated bowls occur in assemblages in the South West which have radiocarbon dates for the whole period from the 39th to the 34th centuries cal BC (Whittle *et al.* 2011, 771). The single radiocarbon date from High Peak (4810 ± 150 BP BM-214), on bulk charcoal from the buried land surface beneath a post-Roman rampart in the 1960s (Pollard 1967), calibrates to 3960-3120 BC (95% probability): Bayesian modelling indicates a posterior density estimate of *3945-3515 cal BC* (Whittle *et al.* 2011, Table 10.5). The small High Peak assemblage appears entirely typical of Early Neolithic ceramics in Devon and Cornwall.

6.3 Post-Roman ceramics *by Maria Duggan*

Introduction and methodology

As part of the analyses of the of 11 bodysherds of Late Roman amphora with a combined weight of 43g recovered from the excavations a re-assessment of the High Peak post-Roman ceramic assemblage held at the Royal Albert Memorial Museum, Exeter (hereafter RAMM) was carried out. Despite the difficulties in the material, the fact that pottery from High Peak had been deposited at RAMM since the first antiquarian investigations presented a unique opportunity to view nearly all of the sherds collected for over a century and a half.

The pottery was quantified by sherd count and by weight. The absence of any diagnostic elements prevented quantification by estimated vessel equivalent (EVE). However an estimate of the minimum number of vessels represented by the sherds was also made (ENV).

Fabric descriptions were based on visual study at x20 magnification, but unfortunately, it was not always possible to form these based on fresh breaks. Colours were described by Munsell number and colour name, although due to depositional conditions the colour of the sherds from the same vessel could differ significantly.

Few obvious new joins could be identified within the collection, especially as the surfaces of many of the sherds were rather worn. Although it is possible that an extended period devoted to re-fitting sherds might prove fruitful, any new joins seem likely to come from the 1960s excavations (and from within the same areas of the site) and would therefore make limited difference to the interpretation of the assemblage.

The most recent full assessment of the High Peak pottery (Pollard 1966, 52-5) provided a breakdown of sherd quantities by type for each phase of investigation, but did not propose an estimate for how many vessels the overall assemblage represented. Although such an estimate is important for interpreting the assemblage and for allowing comparisons to other sites, it must be stressed that the nature of the assemblage caused difficulties in arriving at a figure. In general, the sherds are relatively small, are often abraded and there are no diagnostic sherds such as handles or rims. As a result, this estimate of the number of vessels was based on general similarities of fabric and surface treatment, and should be considered as an approximate minimum rather than a fixed, precise total. Similar sherds were assigned to fabric groups irrespective of the date or location of their recovery (where this was known). These fabric groups may indeed represent individual vessels, but it is also possible that they represent sherds from numerous vessels with similar fabric.

It should be noted that although the pottery is all post-Roman in date in a British context, the label 'Late Roman' is applied to the types as this is the context of their manufacture in late Roman world of the Mediterranean.

Origins of the RAMM assemblage

Artefacts from High Peak, Sidmouth have been of interest since the mid-19th century, and pottery has been recovered from the site intermittently.

'Antiquarian' investigations

Many of the details of mid-nineteenth century investigations are recorded in the accounts of Sidmouth antiquarian and diarist P.O Hutchinson (1810-97). These diaries have recently been digitised by the Devon Record Office for the 'In the Footsteps of Peter Orlando Hutchinson Project' and are available online.

In a paper of 1871 the Rev. R. Kirwan describes High Peak, recognising that much had been lost to the sea, and notes a charcoal layer 'below the crest of the rampart' from which (presumably not long previously) he had recovered a number of bones, flints, rounded pebbles and 'numerous fragments of pottery' which are described in considerable detail:

'…a pale buff or burnt umber colour, while occasionally it is of a darker tint, varying from a dull red to a yellowish brown. The whole of it is coarse, unglazed and of the simplest description….The decorations present considerable diversity: some of the fragments are plain, others are ornamented by incised lines made with a toothed instrument, others by circular indented lines and bands impressed upon the soft clay; and others by raised hoop-like marks or ridges formed either by the hand or the wheel. From the diversity of patterns presented by these fragments it may be

presumed that they represent a considerable number of specimens' (Kirwan 1871, 651).

Kirwan went on to suggest that the pottery collected at the site was probably pre-Roman and represented vessels used for boiling food (1871, 652-3).

Hutchinson's diary entry for Saturday 2nd September 1871 includes a printed account of a visit made to High Peak by the Exeter Naturalist's Club. The visit was led by Rev. R. Kirwan, who, accompanied by W.S.M. D'Urban, the first curator of Exeter museum (RAMM 2012), seems to have dug out further bones, pottery and charcoal.

The account records that the same evening Kirwan read a version of his paper for the club members at the London Hotel, Sidmouth, and exhibited various sherds found at the site. Following this reading Hutchinson produced a box with 'charcoal and similar bones' which he had 'extracted from the bank' and retained for 23 years, before offering apologies to Kirwan that he had not followed up this original discovery (Hutchinson 1871). Although Hutchinson does not mention pottery at this point, his diaries do record him discovering bones, charcoal and pottery at High Peak prior to 1871 (see Hutchinson May 7th 1859).

Kirwan's work at the site re-ignited Hutchinson's interest, who returned to visit the site a number of times over the next fortnight. On September 9th he returned to the same spot, and, criticising the 'hurry-skurry' of the previous Saturday and the general hurried nature of Kirwan's excavations, 'made a careful drawing of the section of the deposit, to show the order in which the objects lay' (Hutchinson 1871). On Monday 11th September he returned to record another section and found further bones, charcoal and pottery (although he does not mention whether he collected these). His diary records further discoveries on Monday 18th September, and on 29th September he posted a letter that he had published in the *Exeter Gazette* on the recent discoveries. Here, Hutchinson confirmed Kirwan's interpretation that the finds had not been deposited in a clear 'chronological succession' and suggested that the layer contained mixed, redeposited material (Hutchinson 1871). He then provided another detailed description of the sherds:

'Besides fragments of plain pottery, Mr Kirwan produced at the meeting a variety of specimens exhibiting no less than fourteen different patterns, to which I can add two more. These sixteen patterns, though dissimilar in themselves, all resemble each other in style. They were evidently made by the same tribe at about the same period…. The whole of the ornamentation consists uniformly in rings, which have been produced by holding a tool or the end of a stick against the outside of the vessel whilst it was revolving on the wheel. Some of these rings lap over another like the planks of a boat; others consist of narrow bands or half rounds, with undulating irregular, ogee like, or broad flat bands between them; and others of several square indented or ploughed-out small channels placed close together. In all the cases the patterns have been obtained in the same way, the only difference being in the size and shape of the point of the tool. Some of the fragments are so flat, or are, in other words, segments of such large circles, as to appear to have belonged rather to dishes than to vases…. In some of the specimens the clay is red, and in others of a light ochre or buff colour, and made, very likely, at no great distance from the spot.' (Hutchinson 1871)

As both men had only seen small bodysherds, it would not be clear that the sherds belonged to large, closed vessels. The 'patterns' referred to are actually the characteristically ribbed, ridged or combed walls of Late Roman amphorae.

Although Kirwan decided that the pottery must all be pre-Roman, Hutchinson's letter published in the *Exeter Gazette* concluded that it was either Roman or Saxon, but 'apparently the latter' (Hutchinson 1871). A letter describing the findings that was sent by Hutchinson to C. Knight Watson at the Society of Antiquaries records the pottery as Saxon (Butler 2010, 10-12). Within the RAMM collection there is one sherd with a handwritten stamp (possibly written by Hutchinson) bearing the note 'From High Peak - said by Llewellin [*sic*] Jewitt Esq to be Romano-British' and in a second hand 'Saxon?'. Llewellynn Jewitt was an antiquarian from Yorkshire, who is most noted for writing *The Ceramic Art of Great Britain*, and died in 1886 (Wroth 2004). Although he spent most of his life in Derbyshire he was the chief librarian at Plymouth Public Library between 1849 and 1853, at which time he was elected as a Fellow of the Society of Antiquaries (Wroth 2004). Although it is not clear that Hutchinson had any contact with Jewitt it is possible that this sherd was one of those found by Hutchinson (either before or after the events of 1871) and shown to him for advice. At some point the original identification of 'Romano-British' seems to have been amended to 'Saxon?' and the label amended accordingly.

In total, 15 sherds within the RAMM collections have paper stamps bearing 'High Peak' and underneath the initials 'RK'. It seems likely that these are some of the sherds found by Kirwan around 1871. However, as Hutchinson's diary records Kirwan exhibiting 14 'patterned' sherds as well as plain sherds, it might be that further sherds held at RAMM were also found by the Rector. At some point, Hutchinson made a detailed illustration of 9 sherds from High Peak, although some of these bear 'RK' stamps. Therefore, at some date Hutchinson had access to a significant proportion, if not all, of the sherds, including Kirwan's finds. Whether the High Peak material arrived at the museum through Hutchinson is unclear, although his later diaries record him depositing bones from the site (Hutchinson July 16th 1872). Likewise, it is not clear whether Hutchinson's illustration includes the two additional 'patterned' sherds found by him and referred to in the *Exeter Gazette* (Hutchinson 1871).

Two sherds in the collection are catalogued as 'excavated by D'Urban'. As D'Urban was present at Kirwan's 'hurried' excavation at High Peak, it might be that these two were indeed found by him. These two sherds have paper stamps that are the same as Kirwan's but without the 'High Peak', and, in fact, may be the same stamp with the initials simply snipped off.

Overall, the sherds recovered during these antiquarian investigations are all small bodysherds. Their condition ranges from abraded to good. The pottery is almost entirely comprised of sherds of Late Roman amphora.

G.E.L. Carter 1929

In Pollard's 1966 report, Charles Thomas assigned 12 sherds to Carter's 1929 excavation (1966, 53). However, the two sherds assigned to Carter that were illustrated in the report (Pollard 1966, Fig. 12.3 and 12.10) both have original 'RK' stamps and were presumably deposited at RAMM in the 19th century. At the time of Thomas' assessment, the sherds illustrated by Hutchinson (Pollard describes them as 'Hutchinson's finds') could not be located in RAMM; instead these were described and quantified from the illustration alone (Pollard 1966, 35). The quantity assigned by Thomas to Hutchinson is nine, which is the number of sherds in the 19th century

illustration. It seems that Thomas was led to believe that the sherds that could actually be located in the museum belonged to Carter's excavation rather than representing additional 'antiquarian' finds. This suggests that Thomas did not, in fact, assess any sherds from Carter's excavations. The role of Kirwan in collecting the bulk of the pottery from High Peak seems to have been overlooked.

RAMM holds a box with artefacts recovered during Carter's excavation but this only contains flint and a small amount of prehistoric pottery. If Carter did retain any other sherds they must either be unmarked within the RAMM material or be deposited elsewhere.

Carter's 1930 report mentions the discovery of 'Iron Age pottery' at the 'foot of the vallum under an accumulation of debris' and 'Romano-British ware' which 'must have reached the position in which it was found at a time when the silting of the ditch had already commenced' (Carter 1930, 119). He goes on to note that 'The remains of the Romano-British period are very slight and do not include any of the finer wares'. The pottery seems to have been shown to Harold St George Gray (Curator of the Somerset Museum 1901-49, Webster and Mayberry 2007) by a young C.A. Ralegh Radford who commented that 'the whole of the pottery might be accounted for by a slight occupation in the second half of the first century AD' (Carter 1930, 119).

Radford went on to conduct the excavations at Tintagel, Cornwall in the 1930s, which led to the first extensive report on amphorae imported to early medieval Britain (Ralegh Radford 1956). However, although Hutchinson presented the High Peak sherds found in the 19th century as potentially Saxon, there is a strong possibility that in 1929 any post-Roman sherds might have been identified as Roman coarse-ware and not considered worth retaining.

Pollard 1961-4

As it must be assumed that Thomas did not see any pottery recovered by Carter, the quantification of the sherds by type that is presented in Pollard's report (1966, 53) cannot be taken as correct.

Pollard's report of the excavations conducted between 1961-4 (Pollard 1966) records that amphora sherds were recovered from four features across trenches A, B and G: the ditch, outer rampart and two separate 'occupation deposits'.

Although the sherds recovered from Pollard's excavation are generally marked with the trench letter, the feature within the trench is not specified. The context of discovery is not noted in the ceramic report. In addition, only 54 of the sherds are accounted for in the section covering the 'Dark Age' features, out of an original published site total of 63 (Pollard 1966, 42-4, 53). As a result many of the sherds at RAMM cannot be assigned with certainty to a specific feature.

The sherds recovered between 1961 and 1964 are all bodysherds; again there are no diagnostic sherds, such as handles or rims. However, in general they are more abraded than the antiquarian finds. A number of the sherds do not have ridging/ribbing but considered overall the entire assemblage seems to be sherds of Late Roman amphorae. Many of the sherds are very small. A number have been glued together, and some of these have been illustrated as a group (Pollard 1966, Fig. 12.5, for example, is a composite illustration of glued, joining sherds). For this revised quantification every scrap was counted even if it had been glued together, which has raised the overall sherd count to 97 (339g) from the original 63 (Pollard 1966, 53). It might be that some of the sherds have broken since the excavation, but

it was impossible to be sure of this, or whether it was only the larger sherds that were originally quantified. It is quite possible that further refits or joins could be made within this group but this would take considerable time as the edges of the sherds are quite worn.

The High Peak pottery at RAMM

The current RAMM Assemblage comprises 128 sherds with a combined weight of 793g.

This can be broken down as:

Sherds with 'RK' stamps	15
Sherds illustrated by Hutchinson (nine shown in the illustration)	4 (Four can be clearly identified, a further three are less certain and carry 'RK' stamps, two could not be located)
Sherds catalogued as 'excavated by D'Urban'	2
Unassigned 'antiquarian' sherds	7 (includes 1 handwritten stamp)
Unassigned sherds	3
Sherds excavated by Pollard	97

It was possible to match four of the sherds at RAMM directly to Hutchinson's illustrations (H1, H2, H6 and H9). A further three seem to be possible matches but also bear 'RK' stamps (H3, H7 and H8). The sherds found prior to 1966 can therefore not be definitively matched to individual collectors or locations. It is also clear that some of Hutchinson's illustrations were not exactly to scale, and over-emphasised certain features such as inclusions or surface treatment. It also seems possible that a number of the illustrated sherds have been worn or broken since they were originally illustrated (including some of the more recent finds, such as Pollard 1966, Fig. 12.2)

Of the unassigned sherds, six are marked in red ink, suggested to be an early method at RAMM (J. Durrant pers. comm.) and are also catalogued with the accession number A1285 (i.e. not from Pollard's excavations). A further sherd bears a handwritten stamp (discussed above). These seven are therefore likely to have been 'antiquarian finds' and have been quantified as such in Tables 4 and 5. Three sherds could not be matched to a specific phase of investigation and have been quantified as 'unassigned sherds'.

Fabric Groups (each representing an estimated minimum of one vessel)

Late Roman 1 amphorae (LRA1) Bii (Thomas 1959), Class 44 (Peacock and Williams 1986)

Amphorae within this broad class were produced in the east Mediterranean from the later 4th to the first half of the 7th century (Williams 2005, 159). Until recently, the generally agreed date for their importation to Britain and Ireland has been the period *c.* AD 475-550 (Fulford 1989, 4). LRA1 are typified by an 'ovoid body with rounded base, broad neck with thickened rim, and thick stumpy, grooved handles' (Williams 2005, 159). The walls are relatively thin, with 'widely-spaced ridging at the mid-point of the body, gradually narrowing at the shoulder and base' (Peacock and Williams

1986, 186) and ‘distinctive grooves on the inside of the vessel’ (Williams 2005, 159). Production has been identified at a number of sites in the north-east Mediterranean, principally southern Turkey (particularly Cilicia), Rhodes and Cyprus (including Paphos) (Williams 2005, 160-1). Although wine seems increasingly likely as the main content of east Mediterranean imports to Britain, olive-oil remains a possibility for LRA1 (Bonifay and Raynaud 2007, 100).

Group 1
Soft, sandy fabric with abundant, ill-sorted, fine to medium black sand and grey rock inclusions. Frequent, irregular voids (probably from limestone), moderate sub-rounded white quartzite. The fabric seems relatively coarse although many of the sherds have very abraded surfaces. Some variation in colour, though most sherds reddish yellow (5YR 6/6 to 7.5YR 7/6).

This group includes:
36 sherds with a combined weight of 144g, wall thickness varying between 7 and 9mm.
All were recovered during Pollard’s excavations in ‘Area B’ (marked as ‘B2’) and include Pollard 1966, Fig. 12.8 and possibly Fig. 12.6 (although the bottom part of this sherd is now missing). Many have traces of narrow-spaced ribbing or wider, ‘clapboard ridging’ on the exterior surfaces, representing, respectively, sherds from the top and bottom, or from the central section of the body of the amphora. It is likely that these were among or comprised the 23 sherds recovered from Trench B in a patch of blackened sand labelled ‘cooking area 1’ (Pollard 1966, 44).

A further sherd bearing an ‘RK’ stamp (4g) as well as two ‘unassigned’ scraps (1g) have similar fabrics.

The large bodysherd illustrated by Hutchinson (H1, and also Pollard Fig. 12.4) also has a similar fabric although there are fine to coarse limestone inclusions rather than voids. The larger inclusions are sparse and certainly smaller than illustrated by Hutchinson or indicated in Pollard (1966, 53). The sherd is reddish yellow (5YR 6/6) with a slightly darker exterior, light reddish brown (5YR 6/4). Weight 86g, wall thickness 7-10mm. In addition, two sherds recovered in 2012 by AC Archaeology have very similar fabric and may be from the same vessel (see below).

Group 2
Soft, sandy fabric; similar to Group 1. Frequent, fine to medium, sub-rounded voids, moderate, fine to medium sand and white quartz. Sherds mostly reddish yellow (7.5YR 7/6).

This group comprises:
38 sherds with a combined weight of 98g, wall thickness between 7 and 9 mm, all from Pollard’s Area A. 28 of these sherds, weighing 88g, are marked ‘A2’ and were from the ‘Dark-Age ditch’ (although one of these was recovered from the spoil-heap), while 10 sherds, weighing 10g, were from Pollard’s ‘Trench A outer rampart clay-with-flint-level’.

Again, many of the sherds are very abraded although a number have traces of ribbing or ridging. A number have been glued together, for example those illustrated in Pollard, which have widely spaced ridging and, as indicated by Thomas (Pollard 1966, 53, Fig.12.5) are from the central section of a LRA1 amphora.

Group 3
Soft, sandy fabric with abundant, fine to medium limestone and moderate, medium black sand and sparse fine quartz and grey rock inclusions. Colour varies between pink (5YR 7/4), reddish yellow (5YR 7/6) and light reddish brown (2.5YR 7/4), but many sherds have a distinctive, paler 'speckled' appearance to the exterior surface, similar to Fabric 3 as described at Bantham (Bidwell *et al.* 2011, 94).

This group comprises:
15 sherds with a combined weight of 159g, wall thickness between 6 and 10mm.
Of these, three may have been illustrated by Hutchinson (H3- also Pollard Fig. 12.10, H6- also Pollard 1966, Fig. 12.7 and H8). In total, six bear 'RK' stamps while one is accessioned as 'excavated by D'Urban' and has a stamp that only states 'High Peak'. Apart from one 'unassigned' sherd all can be linked to 'antiquarian' investigations, including one which was viewed by Llewellyn Jewitt (as described above).

A number of these sherds have traces of the 'clapboard ridging' characteristic of LRA1 or distinctive raised ridges, some of which seem to have been smudged or flattened before the vessel was fired (as in Pollard 1966, Fig 12.10). It is possible that all these sherds were from the same vessel although only one join was observed.

A further six sherds (four of which join), with a combined weight of 51g, from Pollard's excavations have similar fabric. All are from Area G (and marked G2 or GA2) and have very widely spaced 'clapboard ridging' from the central section of a LRA1 amphora. One sherd was illustrated by Pollard (1966, Fig 12.9).

Group 4
Soft, sandy fabric with frequent fine voids or limestone and frequent fine, well-sorted, black sand. Also moderate, medium rounded grey rock inclusions and sparse fine red ironstone. Pink (5 YR 7/4) to reddish yellow (7.5 YR 8/4) but noticeably paler at exterior, very pale brown (10YR 8/4).

Three sherds with a combined weight of 34g, wall thickness between 5 and 8mm. One of these was illustrated by Hutchinson (H9), one may have been illustrated by him (H7) but also has an 'RK' stamp. The third has an 'RK' stamp.

The sherds have closely spaced ribbing on the exterior, rather than the combing suggested in Hutchinson's illustration (H9) which might have indicated LRA2. One sherd (which may be Hutchinson's H7) has ridging characteristic of LRA1.

Group 5
9 joining sherds of a LRA1 amphora recovered by AC archaeology in 2012 (see below)

Overall, there is a high degree of variation in the fabrics of the LRA1 vessels from the High Peak assemblage. This is similar to Bantham (Reed *et al.* 2011) and Mothecombe (Agate *et al.* 2013), suggesting a range of production sources for the vessels arriving at these sites (Campbell 2007, 19).

LRA1 'Bantham- type' amphora
The excavations at Bantham, South Devon produced sherds from six vessels recorded as a variant of the Late Roman 1 amphora (Bidwell *et al.* 2011, 97-9). The distinguishing features of these amphorae included an unusual pale cream, uniform, powdery fabric and distinctive handles. There is ribbing across the exterior of the

bodies, but at the neck an effect of ribbing had been created by a 'flat-ended implement' (Bidwell *et al.* 2011, 99).

Group 6
A hard, smooth, close grained fabric with frequent, fine voids, moderate, fine, well-sorted dark sand and sparse, fine gold-mica. Very pale brown (10YR 8/3).

A total of three bodysherds (two of which join) with a total weight of 14g, wall thickness 6 to 8mm. Two of these are joining sherds, and although abraded, show traces of squared, horizontal grooving which seems to have been made with a flat implement. These are marked as from Pollard's Area B ('B1'). The third sherd, likely to be from the same vessel, is also from Pollard's excavation but is marked 'HP 2A' or possibly 'HP BA'. This was illustrated by Pollard (1966, Fig. 12.2) (although part of the sherd is now missing) and described by Thomas as being from a 'buff coloured' LRA1 amphora with 'stylus grooving' (Pollard 1966, 53-4). The marking on the latter is not clear and it was in a box with an incorrect accession number. As Pollard only refers to 13 'reddish' amphora sherds being found in Area A it is likely that these 'Group 6' sherds are the two 'buff amphora' sherds recovered from the 'stone level' and 'blackened sand' layers within the ditch in Trench B.

The report on the pottery from Bantham (Bidwell *et al.* 2011, 99) noted the presence of two body sherds within the High Peak assemblage in the same fabric as this LRA1 'type', but reported a lack of obvious parallels from other British sites. However, although these 'Group 6' sherds have similar fabric and grooving, the absence of any rims or handles from High Peak prevents more definite association with the Bantham vessels.

LRA2 amphora Bi (Thomas 1959), Class 43 (Peacock and Williams 1986)
This globular amphora is distinguished by 'a short conical neck with a high everted rim and bowed handles' with deep, horizontal grooving on the upper part of the body (Peacock and Williams 1986, 182). The fabric is generally hard, fine-grained and smooth (Peacock and Williams 1986, 184). Again, the period of importation to Britain has been generally considered to be *c.* AD 475-550 (Campbell 2007, 19). Production sites for LRA2 have been identified on the Aegean island of Chios and at Cnidus (on the coast of present-day Turkey) and in the Argolid region of Greece, although a more widespread origin is possible (University of Southampton 2005). As with LRA1, wine or olive oil are potential contents.

Group 7
Hard, sandy fabric with abundant fine to medium sub-angular voids, fine, rounded black sand, sparse sub-rounded quartz, and very sparse gold mica. Colour is reddish yellow (7.5YR 7/6).

One, abraded bodysherd, weight 24g, wall thickness 8mm, bearing an 'RK' stamp.

Although it was illustrated by Pollard (1966, Fig. 12.3) this sherd was mistakenly assigned to Carter's excavation. The sherd is identified as Bi (LRA2) by Thomas and described as relatively light and thin (Pollard 1966, 53). There are three closely-set, thin and shallow grooves on the exterior of the sherd which seem scratched, rather than deeply combed. The end of the sherd with the fourth groove visible in the 1966 illustration is now missing. The hard fabric and grooving suggests LRA2 but as this is a small bodysherd, this cannot be classified with certainty.

Group 8
Fine grained, hard fabric, with moderate, very ill-sorted, sub-rounded, medium to coarse quartzite, rare very fine gold mica and fine limestone. The fabric is light red (2.5YR 6/6) but the exterior is paler, pink (5YR 7/3) and possibly slipped.

A single bodysherd, weight 11g, wall thickness 7mm with horizontal, squared grooves on part of the exterior and traces of ridges on the interior. The sherd was illustrated by Hutchinson (H2) and by (Pollard 1966, Fig. 12.1) at which point it was identified by Thomas as *Bi* (LRA2) and described as having 'stylus grooving' (Pollard 1966, 53). Again a tentative identification of LRA2 is possible.

There is a further, small, 'unassigned antiquarian' bodysherd in a similar, though more micaceous, fabric in the RAMM assemblage with a trace of a possible ridge on the exterior. Weight 4g, wall thickness 8-9mm.

Unidentified Late Roman amphora (UnID LRA)
These groups could not be matched with certainty to a specific type of Late Roman amphora due to a lack of diagnostic elements. Following Campbell (2007, 19), LRA is used rather than 'Biii' or 'Bmisc'.

Group 9
Hard, but crumbly fabric with very rough feel. Abundant, ill-sorted fine to medium quartz. Light brown to brown (7.5YR 6/4 to 5/4).

A total of 14 sherds, with a combined weight of 32g, wall thickness 7-8mm, all from Pollard's excavation. Three of these are glued, joining bodysherds, one of which is marked G2. Another two bodysherds marked G2 join separately. Nine scraps with no obvious joins but assumed to come from the same vessel are marked G2. One of these has a very faint trace of ribbing and it might be that these sherds belong to a Late Roman 1 amphora, possibly to one of the other groups. The sherds are very worn and may have been exposed to heat.

Group 10
Hard, very smooth, close grained fabric. Very fine inclusions, abundant very fine, well-sorted sand and sparse mica. Pale colour; light grey (2.5Y 7/2) to pale brown (2.5Y 8/3).

A total of four sherds with a combined weight of 96g, wall thickness 5-7mm. One of these has a stamp bearing 'High Peak' but no initials and is catalogued by RAMM as excavated by D'Urban. This thin sherd has very faint, very shallow, raised ridges on exterior surface and a faint groove on interior. A second, larger sherd with an 'RK' stamp has wide, horizontal, shallow grooves on the exterior as well as a diagonally scratched groove made with a rounded implement prior to firing. Either of these might be the 'large buff sherd of thin hard fabric' (not illustrated) assigned by Thomas to his class Biii and attributed at the time to Carter's excavation (Pollard 1966, 53). The remaining two sherds also have 'RK' stamps; one of these has no ribbing but seems to be from towards the shoulder of an amphora while the other has a faint groove on the exterior.

It is not certain that these sherds are from the same vessel.

A further bodysherd, 20g, wall thickness 7mm, bearing an 'RK' stamp could not be confidently matched to another group due to abrasion, but seemed to have an uneven exterior surface.

Unidentified sherd (UnID)
Group 11
Hard, coarse fabric with rough feel and uneven fracture. Frequent, coarse dark and light grey coarse sub-rounded rock inclusions, medium angular white quartzite and red ironstone. Pink (7.5YR 7/4).

One distinctive bodysherd in a coarse fabric, 15g, wall thickness 10mm. No ribbing on exterior, interior surface very worn. Possibly also from an amphora, but if so, from a thicker vessel in a distinctive coarse fabric.

Collection	LRA1 (*Bii*)	LRA1 'Bantham-type'	LRA2 (*Bi*)	UnID LRA	UnID	Total
R Kirwan stamps	8	0	1	5	1	15
Illustrated by P.O. Hutchinson without 'RK' stamps	2	0	1	1	0	4
D'Urban?	1	0	0	1	0	2
Unassigned 'Antiquarian'	6	0	0	1	0	7
'Antiquarian' Subtotal	17	0	2	8	1	28
Pollard 1966	80	3	0	14	0	97
Unassigned	3	0	0	0	0	3
AC Archaeology 2012	11	0	0	0	0	11
Totals	111	3	2	22	1	139

Table 4: Sherd counts of post-Roman pottery by collection and fabric

Collection	LRA1 (*Bii*)	LRA1 'Bantham-type'	LR2 (*Bi*)	UnID LRA	UnID	Total
R Kirwan stamps	110	0	24	106	15	255
Illustrated by P.O. Hutchinson without 'RK' stamps	93	0	11	4	0	108
D'Urban?	18	0	0	23	0	41
Unassigned 'Antiquarian'	39	0	0	4	0	43
'Antiquarian' Subtotal	260	0	35	137	15	447
Pollard 1966	293	14	0	32	0	339
Unassigned	7	0	0	0	0	7
AC archaeology 2012	43	0	0	0	0	43
Site Totals	603	14	35	169	15	836

Table 5: Weight (g) of post-Roman pottery by collection and fabric

LRA1	LRA1 'Bantham Type'	LR2	UnID LRA	UnID	Total
4/5+	1	2?	2+?	1	10/11+

Table 6: the High Peak assemblage, by estimated number of vessels (ENV, minimum estimate) for all previous investigations

AC archaeology 2012
Excavations in 2012 produced a total of 11 bodysherds of Late Roman amphora with a combined weight of 43g.

These can be summarised as:

Fill 204 of ditch F202
One very abraded small body sherd, 3g, with faint traces of ridging (Fig. 6a). This is likely to be from the same vessel as the sherd from Context 206. Wall thickness 7mm.

Fill 206 of ditch F202
One abraded body sherd, 6g, of a late Roman 1 amphora (LRA1), with traces of ridging suggesting that the sherd is from toward the central section of the vessel (Fig. 6b). Wall thickness 7-8mm.

Both sherds are reddish yellow (5YR 6/6) and have a soft, sandy fabric with ill-sorted inclusions. Frequent, fine to medium sub-rounded voids (presumably from limestone inclusions). Abundant, fine, black sand, moderate, fine, red ironstone and fine, sub-angular, quartz and white quartzite.

Both of these sherds are likely to belong to the same vessel as a Late Roman 1 amphora partially recovered by Pollard during excavations in the 1960s ('Group 1' within the main site collection) which may have been recovered from Trench B in a patch of blackened sand labelled 'Dark Age Cooking Area II' (Pollard 1966, 44).

Fill (504) of ditch F502
Nine joining sherds, 34g, of a vessel with fairly closely spaced, rounded, horizontal ribbing on the exterior (Fig. 6c). Wall thickness 7mm.

The fabric and ribbing suggest that these sherds are from a Late Roman 1 amphora. As the ribbing is quite narrowly-spaced, the sherds are probably from towards the top or bottom of the vessel, which is also indicated by the curvature of the sherd and the angle of the ribbing.

Soft, close-grained fabric with a smooth, powdery feel and fine inclusions. The sherds are very abraded. Moderate, sub-rounded voids, sparse, fine limestone and very fine gold mica. The fabric is reminiscent of the Bantham 'LRA1 type' fabric (Bidwell *et al.* 2011, 97-9) although the sherds are slightly more 'yellowish' in colour, (very pale brown - 10YR 8/4).

These sherds do not appear to match to any within the earlier collections held at RAMM, and have been assigned as 'Group 5' within the wider site assemblage.

Therefore, the 2012 excavations produced 11 sherds which probably represent no more than two amphorae, one of which is 'new' to the site, whereas one was also partially recovered in in the 1960s.

Discussion
With the eleven sherds excavated in 2012, the overall total sherd count for the site is 139 with a total weight of 836g. A full quantification of the sherds by type and investigation phase is provided in Table 4, and a minimum estimate of the total number of vessels represented by the bodysherds in Table 6.

The sherds recovered by Pollard come from approximately five vessels, all of which have been classified as LRA1, LRA1 'Bantham-type' or unidentified LRA. It is possible, however, that a few sherds of all but one of these vessels (the 'Bantham type'/'Group 6') were also collected in the 19th century. In contrast, the lower number of 19th century, 'antiquarian' finds represents a greater variety of vessels (approximately seven); again, mostly LRA1 or unidentified LRA, but also possibly LRA2. The sherds recovered in 2012 seem to represent one Late Roman 1 amphora that is 'new to the site' and two sherds from one of the same vessels partially recovered by Pollard.

Apart from one unidentified sherd, the entire post-Roman ceramic assemblage seems to be made up of 'Late Roman amphora' sherds. However, unlike Bantham there are no obvious sherds of Gazan amphorae or North African amphorae (Bidwell *et al.* 2011, 100-102). Nevertheless there remain a significant number of sherds that could not be classified, due to a lack of diagnostic elements and non-distinctive fabric. Further identifications, however, may be possible, potentially through forms of scientific analysis. Again, unlike Bantham there were no sherds of Red Slip fineware, no 'E ware' and no obvious sherds of post-Roman pottery produced in Britain (Bidwell *et al.* 2011, 106-8). The range of pottery represented by the High Peak sherds is more limited. The High Peak sherds provide evidence of the transport of vessels in which imported, exotic commodities were brought to the site, but not of the other wares attested at many other post-Roman sites with imported amphorae.

Although a minimum number of ten or eleven vessels was estimated for the site, this is broadly comparable with the estimates for other, significant post-Roman sites in the South-West with imported amphorae (a comparative table of sherd and vessel quantities is provided in Reed *et al.* 2011 and Agate *et al.* 2013). However, this might also reflect the various methodologies used and the varying condition and nature of the assemblages. The number of vessels at High Peak is significantly less than Tintagel, Cornwall, where a conservative estimate of 150 amphorae was suggested (Barrowman *et al.* 2007, 329) and Bantham, with approximately 52 amphorae (Reed *et al.* 2011).

The focus on Late Roman 1 amphora at High Peak is similar to Bantham (Reed *et al.* 2011) and Mothecombe (Agate *et al.* 2013), in contrast to Tintagel, which is dominated by LRA2 (Barrowman *et al.* 2007). This might suggest a pattern in the distribution of amphorae in the region or an emerging pattern in the wider research on these imports. The recently studied large assemblage from the site at Vigo in north-west Spain shows a similar focus on LRA1 (Fernández Fernández 2010, 234-5). Such parallels could suggest the transport of amphorae along the Atlantic coast (Agate *et al.* 2013).

The prevalence of small, worn, undiagnostic bodysherds within the High Peak collection contrasts with the recently excavated assemblage from Bantham (Reed *et al.* 2011). This contained significant numbers of large sherds, including handles and rims, many of which were in good condition (Bidwell *et al.* 2011, 93). This might indicate that the sherds from High Peak were redeposited, or exposed to adverse conditions after the original vessels were broken, or reflect differences in the consumption and disposal of the vessels between the sites.

Thomas' assessment of the High Peak assemblage suggests a date for the importation of the amphorae in the late fifth or sixth century (Pollard 1966, 53). This date has changed little, and the imports to Britain are still largely placed between *c.* AD 475 and 550 (Campbell 2007, 19), although radiocarbon dates from Tintagel have suggested imports might have arrived from *c.* AD 450 (Thorpe 2007, 245), and a similar date is suggested for the earliest imports at Bantham (Bidwell *et al.* 2011, 109). The chronology for the imported amphorae is principally based on their discovery in association with Red Slip fineware (Campbell 2007, 19), dated typologies for which have been established in the Mediterranean and are largely based on Hayes' *Late Roman Pottery* (1972). The absence of finewares at High Peak prevents a more precise dating for the material. Similarly, although changes in the forms within the broad 'Late Roman amphora' types have increasingly been used to refine the dating of these in France and the Mediterranean, such comparisons are prevented at High Peak by the absence of diagnostic sherds.

6.4 Flint and chert *by Henrietta Quinnell*

Introduction

The assemblage came from two contexts in Trench 1, eleven in Trench 2, five in Trench 3, five in Trench 4 and six in Trench 5. With the exception of fill (214) of posthole F213 and possibly fill (216) of a tree throw, both in Trench 2, features which may be Neolithic, all contexts are post-Roman or more recent. (213) and (216) contain only eight and four small pieces respectively. For this report the assemblage is treated as a single unit. It contains no piece which need be of any date other than Early Neolithic.

The assemblage consists of 1183 pieces weighing 10,815g. Of this 435 pieces, 3485g, are of pale grey flint, 36.8% on numbers, 32.2% on weight: 309 pieces, 2219g, are of dark grey flint, 26.1% on numbers, 20.5% on weight: 462 pieces, 5146g, are of chert, 39.0% on numbers and 47.6% on weight.

	Pale grey flint		Dark grey flint		Chert		Totals		
Category	No	Wt	No	Wt	No	Wt	No	Wt	Notes
Core trimming pieces	137	1626	64	642	321	4397	512	6665	1 burnt, 4 use wear, 1 retouch
Cores	9	842	5	438	3	350	17	1630	2 burnt
Core rejuvenation	0	0	3	115	0	0	3	115	2 use wear
Flakes	37	211	17	85	1	21	55	317	
Flakes, usewear	20	113	23	176	1	13	44	302	
Flakes, retouch	9	155	6	78	0	0	15	233	1 burnt
Broken flakes	86	165	44	106.5	22	69	149	316.5	
Broken flakes, usewear	18	40	15	54.5	4	59	37	143.5	2 burnt
Broken flakes, retouch	4	18.5	2	19	0	0	6	36.5	
Blades	3	4.5	9	32	2	8	14	44.5	
Blades, usewear	4	12	22	130	1	34	27	176	
Blades, retouch	1	4	5	22	0	0	6	26	
Broken blades	14	30	33	45.5	15	125	62	200.5	
Broken blades, usewear	21	40	31	103.5	0	0	52	143.5	1 burnt
Broken blades, retouch	3	7.5	6	17.5	2	41	11	66	
Chips	55	13.5	10	3	89	17	144	33.5	
Tools	13	203	14	152	1	12	29	367	
Totals	435	3485	309	2219.5	462	5146	1183	10815.5	

Table 7: The composition of the lithic assemblage

The assemblage published from the 1961-4 excavations had obviously been studied selectively as this consisted of 797 finished tools, cores and struck flakes, 16 pieces of brown chert, 2 pieces of Portland chert and 5 retouched or utilised flakes detached by frost fracture. There is no reference to core trimming pieces or to chips (Pollard 1966, 48) which together form about half of the 2012 assemblage. Furthermore it seems likely that only pieces perceived as well-made were selected, the cores for example lacking the poorly worked specimens present in 2012. This provides some

difficulties in comparing the two reports. It may be presumed, particularly in the light of the much more extensive area excavated in 1961-4, that that assemblage represented the better worked material selected from an assemblage much larger than that from 2012. It should be remembered that modern methods of studying lithics were only beginning to be devised in the 1960s.

Although the 2012 assemblage may appear sizeable it comes from redeposited contexts on a very small percentage of the site. Detailed statistical analysis is not therefore appropriate.

The term blade indicates a flake of which the length is two or more times its breadth.

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Raw materials

There are three principal materials. A mottled pale grey flint of mixed quality occurs in the clay-with-flints on the site and is referred to as pale grey flint; this has its original chalk cortex modified to varying degrees by water and rolling, with the cortex on a few pieces, *c.* 10%, indicating that it had been collected as beach cobbles/pebbles. This pale grey flint was that most frequently found in the assemblage. A dark grey flint is of better quality and all of this has cortex which is water-worn to varying degrees indicating a probable beach cobble/pebble origin. This dark grey flint was the second most frequently used material and Table 7 indicates that it supplied the greatest number of tools and blades. The third material is chert, generally a pale brownish/yellow; this has cortex which indicates its derivation from the local clay-with-flints. In small pieces the two types of flint can be difficult to distinguish and the pale grey flint has patches of apparent chert within it on occasion which means that small pieces can be difficult to distinguish. All three materials originate from the site or from the beach close to it.

The pale grey flint was also that most frequently used in the 1961-4 assemblage. A ‘local semi-translucent brown flint’ is also described for that assemblage but was not recognised among the 2012 material: the same is true for Portland chert. A dark grey flint ‘derived from the deposits at Beer’ was also found in 1961-4 but no reference is made to the cortex being waterworn. A small quantity of local worked chert is also referred to. Overall the raw materials used are similar in the two assemblages, with the originally larger early assemblage containing a rather wider range of raw

materials. The emphasis was obviously on locally obtained materials which were then worked on or near the site.

	No cortex	1-25%	26-50%	51-75%	75-100%	Totals
Pale grey flint	95	105	57	39	25	321
Dark grey flint	8	13	13	11	9	54
Chert	91	37	7	2	0	137
Totals	194	155	77	52	34	512

Table 8: Details of cortex for core preparation/trimming pieces given in quartiles of the dorsal surface.

Core preparation/trimming flakes

512 examples weighing 6,665g, of which 137/1626 are chert, 54/642 are dark grey flint and 321/4397 are local grey flint. Chert forms 26.8% by pieces, 24.4% by weight, dark grey flint 10.4% by pieces, 9.6% by weight, local grey flint forms 63% by pieces, 66% by weight. It is evident from the number and size of this material that nodules of the three raw materials were worked down to form usable cores on site. This makes the situation different from, for example, Raddon causewayed enclosure, where most raw material appears to have been brought onto the site as prepared blocks and where core trimming material was rare (Tingle 1999).

Table 8 indicates the amount of cortex present on the core trimming flakes and Table 9 that present on all complete pieces. These figures provide further evidence for the working of locally obtained flint and chert blocks on the site.

	No cortex	1-25%	26-50%	51-75%	75-100%	Totals
Pale grey flint	33	36	6	6	2	83
Dark grey flint	33	41	11	5	3	93
Chert	4	2	0	0	0	6
Totals	70	79	17	11	5	182

Table 9: Details of cortex for complete tools, flakes and blades (including those with retouch and usewear) given in quartiles of the dorsal surface.

The working of flint and chert

The cores (Table 10) are generally in the range which would be expected of an Early Neolithic site (e.g. Saville 1981). Most of them have been abandoned at an early stage, reflecting the abundance of raw material on the site and attempts at selecting the best material for working. The surviving detachments reflect the range of flakes and blades found (Tables 11-12). Both lengths and breadths are broadly in accordance with those recorded by Pollard (1966, Fig. 11). The shapes (Tables 13-14) are also in broad accordance. Table 14 records the breadth to length values in the way usual in the 1960s and enables direct comparison with Pollard's material: Table 15 reflects current usage (e.g. Saville 2008). All the data for the struck pieces is in broad accordance with that found on Early Neolithic sites, with shapes narrower than would be expected in subsequent periods.

Most of the removals appear to have used a hard hammer and core platforms show little preparation, beyond some retouch to remove the platform lip: note that the core scrapers referred to by Pollard (1966, 48) are cores with edges retouched to facilitate further removals.

Context	Weight	Material	Clark	Comment
100	44g	Pale grey flint	C	Two opposed platforms, one at right angles, blade detachments hampered by problems with material
101	42g	Dark grey flint	D	Discoidal core with centripetal blade and bladelet detachments
200	318g	Pale grey flint	B1	Two opposed platforms semi- pyramidal, blade detachment, abandoned because of problems with materials
200	305g	Chert		'Test piece', two thermal detachments and one blade detachment
203	144g	Pale grey flint		Burnt: classification uncertain
204	22g	Pale grey flint	D	Discoidal core, one face with centripetal short flake detachments, second face parallel flaked with bladelet and tiny flake detachments
205	209g	Dark grey flint	B1	One of two platforms cortical, unsuccessful flake detachments
219	19g	Dark grey flint	B3	One possible flake detachment
300	118g	Dark grey flint	B1	Two opposed platforms semi-pyramidal, one cortical, bladelet and broad blade detachments
300	33g	Pale grey flint	B2	Principal platform seven bladelet detachments
300	21g	Chert	A1	One flake detachment
300	24	Chert		Exhausted core; most detachments probably unsuccessful
400	34g	Pale grey flint	A1	Mainly bladelet detachments, one flake, burnt
400	66g	Pale grey flint	B1	Blade detachments
500	14g	Pale grey flint		Exhausted core with evidence of bladelet detachments
505	50g	Dark grey flint	B3	Classic V-shaped alternate flaking core, patinated and detachments, including possible flake, indistinct
505	163g	Pale grey flint		Burnt: classification uncertain

Table 10: Details of cores

	Pale grey flint	Dark grey flint	chert
0-10 mm	2	1	
11-20 mm	5	1	
21-30 mm	27	18	
31-40 mm	26	41	1
41-50 mm	15	17	
51-60 mm	7	9	3
61-70 mm	1	3	
71- 80 mm	0	3	1 + 1 131mm
Totals	83	93	6

Table 11: Length of complete tools, flakes, and blades (including those with retouch and usewear)

	Pale grey flint	Dark grey flint	chert
0-10 mm	1	1	
11-20 mm	29	29	1
21-30 mm	30	39	2
31-40 mm	15	17	2
41-50 mm	5	5	1
51-60 mm	3	2	
Totals	83	93	6

Table 12: Breadth of complete tools, flakes, and blades (including those with retouch and usewear)

	Pale grey flint	Dark grey flint	chert
0.0-0.5 very broad			
0.6-1.0 broad	17	12	1
1.1-1.5 medium/broad	29	23	0
1.6-2.0 medium/narrow	23	33	1
2.1-2.5 narrow	6	10	1
2.6> very narrow	8	15	1 + 1 4.7
Totals	83	93	6

Table 13: Length/breadth indices of complete tools, flakes, and blades (including those with retouch and usewear)

	Pale grey flint	Dark grey flint	chert
1:5 – 2:5	4	9	1
2:5 – 3:5	34	40	3
3:5 – 4:5	21	21	1
4:5 – 5:5	17	10	
5:5 >	7	13	1

Table 14: Breadth to length ratio values of complete tools, flakes, and blades (including those with retouch and usewear)

Tool type	Pale grey flint	Dark grey flint	Chert	Total
Arrowhead	1(3) **L1**			1
Scraper, end	1(11) br, 1(4), 1(11)	1(21), 1(11), 1(3), 1(30) **L5**, 1 (14) **L6**		8
Scraper, hollow, denticulate	1(38)			1
Knife	1(11) **L2**, 1(30) **L4**, 1(8) **L3**	1(12)		4
Piercer	1(83) **L7**	1(4)		2
Notched blade		1(2) br		1
Notched flake	1(8)	1(5) br, 1(3)	1(12)	4
Serrated blades and flakes	3 br (3)	1(3) br, 2 (13)		6
Bifacially worked flake		1(18)		1
Totals	13	14	1	28

Table 15: Details of tools. The figure in brackets indicates weight in grams, br indicates broken

Chert does not figure prominently in these tables, and is less well represented than among the core preparation/trimming pieces. However a single blade 131mm long but only 28mm wide is present, as are a number of broken flakes/blades *c.* 3mm thick with almost parallel surfaces. These factors suggest that chert sometimes was worked to produce long, thin blades, an aspect hardly apparent from the data in the tables.

Burnt pieces

The seven burnt pieces out of the total of 1183 is very low for a site of any kind. No reference is made to burning in the report on the 1961-4 material, but this was probably following practice at the time. It is possible that the scarcity of burning relates to the contexts of the finds, indicating that most of the material had been worked or used away from fires, probably away from the areas of other activities.

Tools

Arrowheads A single arrowhead was found.

L1 (Fig. 7) fill (204) of ditch F202. Pale grey flint. Leaf arrowhead, broken across centre and at tip, and damage notch in one side. Invasive 'ripple' retouch across both faces. Weight 2g. This example has straight sides and may come from a large example of Green's (1980, 74) kite-shaped group. Three leaf arrowheads, all broken

and all in the brown flint not recognised in the 2012 assemblage, were found by Pollard (1966, Fig. 10, Nos 23-5).

Scrapers Nine scrapers were identified (Table 15). Of these eight were end scrapers and include the following:
L5 (Fig. 7) topsoil (300). Dark grey flint. End scraper on cortical flake, neat direct retouch across end, and usewear on both edges. Weight 30g.
L6 (Fig. 7) fill (205) of ditch F202. Dark grey flint. End scraper on broad flake with facetted butt. Direct retouch across end, with some direct retouch at base of right edge. Some usewear. Weight 14g.

End scrapers are by far the most common scraper type found on Early Neolithic sites (Saville 2008, 687); the unillustrated examples are broadly similar to L5 and L6. The single hollow denticulate scraper is unusual in an Early Neolithic context. Scrapers were by far the most common tool type identified in the 1961-4 assemblage, 26 in all, of which 24 were varieties of end scrapers.

Knives Three out of the four knives are illustrated, and the fourth is somewhat similar to L4. Knives, with a length of retouch blunting one edge, are not particularly common on Early Neolithic sites (Saville 2008, 702) but seven were identified in the 1961-4 assemblage (Pollard 1966, Fig. 10, Nos 12-13).
L2 (Fig. 7) possible rampart material (218). Pale grey flint. Knife on cortical blade, direct retouch on proximal right edge, medial length of inverse retouch on left edge, usewear on all edges. Weight 11g.
L3 (Fig. 7) topsoil (400). Pale grey flint. Expedient knife on cortical blade, small length of inverse retouch on proximal right edge, some usewear on all edges. Weight 7g.
L4 (Fig. 7) topsoil (300). Pale grey flint. Knife on flake, neat fine direct retouch on proximal left edge and most of right edge, a little invasive inverse retouch on upper left edge. Some usewear around most of perimeter. Weight 30g.

Piercers These are fairly frequent artefacts on Early Neolithic sites: one of the two found is illustrated. Only two were identified in the earlier assemblage.
L7 (Fig. 7) fill (204) of ditch F202. Pale grey flint. Piercer on end of cortical flake, point formed by direct and inverse retouch. Some usewear. Weight 83g.

Notched blades and flakes. A total of five examples, none illustrated. These do not appear to be usually recorded on Early Neolithic sites in Devon or elsewhere. The notches are all 5mm across or larger and appear to have been deliberately retouched. Such pieces are a regular feature of assemblages from field walking in the Tiverton area (Quinnell *et al.* in prep).

Serrated blades and flakes. A total of six were identified, all but two broken and none illustrated. These are sometimes referred to as denticulate or microdenticulate pieces, depending on the size of the serrations. They are a frequent tool on Early Neolithic sites and sometimes have edge gloss which was not observed in these High Peak examples. However, six pieces with 'rough chipping' along an edge were recognised in the 1961-4 assemblage. An illustrated example was recently found in a pit with Early Neolithic pottery at Wayland's, Tiverton (Leverett and Quinnell 2010, Fig 4).

Bifacially worked flake. A single example of a form fairly common in surface collections in the Tiverton area (Quinnell *et al.* in prep.) and also from the Lizard where a Neolithic date is argued for (Smith 1987, 62, Fig. 13).

Blades and flakes with retouch or usewear. The total of these pieces, including those broken, is 205. Six of these pieces are core trimming or rejuvenation flakes (Table 7). It is impossible in all cases to distinguish retouch from usewear and to distinguish the latter from damage. For this reason many authorities (e.g. Saville 1981 and 2008) group the variations together under the term 'edge-trimmed'. The 'usewear' here referred to, sometimes called 'utilisation', is the fine alteration of an edge as observed by the naked eye or under a x10 hand lens: it is not to be confused with that observable under a microscope.

By far the greatest number of these, broken and unbroken, 166, have usewear: given that almost all come from redeposited contexts the possibility of some edge-modification through damage is strong. The problems have been clearly set out by Saville (1981). Some nine examples were noted in the 1961-4 assemblage. Overall the presence of wear caused by use on at least some of these pieces, from both assemblages, indicates a more extensive use of struck flint pieces than formal tool types indicate. And here, of course, the pieces with retouch – unlikely to be caused by damage but not of a character to allow, at present, formal classification into tool types – are also relevant. There are 36 pieces with retouch in the assemblage which do not fall into recognised tool categories, and there were ten pieces in the 1961-4 assemblage.

Concluding comment

The assemblage should all belong to the Early Neolithic period and contains a number of pieces, such as the arrowheads, knives and scrapers, which are typical of material of this date. The retention of all struck flint and chert allows the clear demonstration that working took place on site and on materials sourced locally. The ready availability of local material may have encouraged a good deal of expedient use of struck pieces without any or much modification, giving rise to the large number of pieces with retouch or usewear. However, the assemblage studied represents a tiny percentage of the lithics still *in situ* on the site and has almost all been redeposited in the contexts within which it was found. Therefore no detailed analyses, such as possible chronological changes in the form of tools or in patterns of activity in different areas of the site, are possible.

6.5 CBM

A small fragment (3g) of possible CBM was recovered from the third fill (505) of ditch F502. This is very worn with no original surfaces or distinguishable form. The fabric is not consistent all the way through and it is just possible that this is actually a very abraded piece of pottery.

6.6 Slag

Three pieces (390g) of undiagnostic iron working slag were recovered from three contexts in Trenches 4 and 5. Two of the pieces were found in separate fills of ditch F502 and the other piece was from a fill of ditch F402. Two of the lumps (one of those from Trench 4 and one from Trench 5) are very small but the other piece from context (506) is larger (375g). The slag must represent iron working fairly close by in the vicinity but is not present in the quantities that would be expected if it was taking place within the area of the excavation.

6.7 Shell

Two shell fragments were recovered from two contexts within Trench 2. The 2 topsoil (200) produced a fragment of slipper limpet shell and fill (204) of ditch F202 produced a fragment of oyster shell.

6.8 Animal bone

A small fragment (1g) of animal bone was recovered from Trench 3 subsoil (301). This is a piece of a long bone from a mammal, which cannot be identified more precisely.

6.9 Cobbles and pebbles *by Roger Taylor*

22 beach cobbles and pebbles (5350g) were collected during the excavation. The geological size distinction between a pebble and a cobble is made at 64mm maximum dimension. The material derives from the Budleigh Salterton Pebble Beds, from residual flint gravels (based on colour) and from the Upper Greensand (which is local to the site), reflecting the silicification of parts of the High Peak Upper Greensand and the formation of chert concretions within the sandstone.

Buried soil (219) produced a round fossil sponge (*Porosphaera* sp.) preserved in flint derived from the Chalk. This is not immediately local to the site, but may have been collected from the Palaeogene residual flint gravels in the Sidmouth area. This is suggested by the yellowish staining. This fossil may have been picked up and curated out of curiosity.

One cobble, an elongated rounded quartzitic beach cobble from fill (204) of ditch F202, has faint polishing on the flatter surfaces, possibly indicating use as a rubber. Pollard (1966, 55) reported two similar finds also from post-Roman contexts.

The other cobbles and pebbles show no evidence of utilisation. There seems to be no standard for what constitutes a slingstone. Ideally they appear to be smooth, well rounded and more or less spherical, but ovoid stones appear to perform well. Sizes in the range 50-60mm appear to be common while weights up to 500g are quoted. Six pebbles in the collection fall into the general size range of possible sling stones. The others are either too small, or too large/irregular. The reason for bringing these stones to the site is therefore unclear.

6.10 Other worked stone

Several pieces of probable quarried flint were recovered from the fifth fill (507) of post-Roman ditch F502. These stones may represent rampart material or structure that has collapsed into the ditch. An example of this stone was retained.

7. PALAEOENVIRONMENTAL ANALYSES AND RADIOCARBON DATING

7.1 Introduction *by Michael J. Allen*

A series of eight bulk samples were taken principally from ditch fills and postholes. Two samples were from probable Neolithic features and the remaining six from probable post-Roman features. The flots and residues were supplied after processing by standard washover flotation methods. Flots were retained on 300μm /and 500μm mesh sieves, and residues on a minimum of 500μm to 1mm. The flots and charcoal

>4mm from the residues were scanned under ×7.5-×45 stereo-binocular microscope and assessed. Very few charred plant remains were present and only grain and other charred seeds were present in the Neolithic posthole. Charcoal, however, was present in this Neolithic context, and in a number of post-Roman ditches and a posthole. Only the charred material from the Neolithic posthole F213 was analysed, however charcoal from ditch F202 was identified and radiocarbon dated.

7.2 Neolithic charred plant remains and wood charcoal by Ellen Simmons

This report summarises the analysis of charred plant material and wood charcoal recovered from the fill (214) of a probable Neolithic posthole F213.

Method

The sample was fully sorted for charred plant remains and wood charcoal using a low power binocular microscope (x7-x45). Identification of charred plant material was carried out using modern reference material in the Department of Archaeology, University of Sheffield and various reference works (Berggren 1981, Anderberg 1994, Cappers *et al.* 2006). Cereal identifications follow Jacomet (2006). Other plant nomenclature follows Stace (2010). The archaeobotanical composition of the sample is recorded in Table 16. The abbreviation *cf*. denotes that a specimen most closely resembles that particular taxa more than any other. Charred plant material recovered from the samples was stored in gelatine capsules, or glass tubes with plastic stoppers, in sealable plastic bags.

Wood charcoal fragments were fractured manually and the resultant anatomical features observed in transverse, radial and tangential planes, using high power binocular reflected light (episcopic) microscopy (x50, x100 and x400). Identification of each fragment was carried out to as high a taxonomic level as possible by comparison with material in the reference collections at the Department of Archaeology, University of Sheffield and various reference works (e.g. Schweingruber 1990, Hather 2000). A record was also made, where possible, of the ring curvature of the wood and details of the ligneous structure, in order for the part of the woody plant which had been burnt and the state of wood before charring, to be determined (Marguerie and Hunot 2007).

Feature	**Posthole 213**		
Context	**214**		
Sample	**3**		
Phase / Date	**Probable Neolithic**		
Size fraction	**>4mm**	**2-4mm**	**1-2mm**
cf. Cereal grain indet. (probable indeterminate cereal grain fragment)	-	1	-
Malus sylvestris (L.) Mill. endocarp fragment (crab apple core)	3	8	3
Rosaceae exocarp fragment (fruit outer skin)	-	6	15
Parenchyma fragment (undifferentiated plant storage tissue)	1	13	41
Indeterminate plant material	-	-	1

Table 16. Charred plant remains from posthole fill (214)

A minimum charcoal fragment size of 2mm was chosen for identification, as smaller fragments are difficult to fracture in all three planes and therefore difficult to identify. This may however result in a bias against the representation of species such as lime (*Tilia* sp.) which tend to be fragile and fracture easily into small fragments. Fifty charcoal fragments were identified with the aim of ensuring that the taxa identified were as representative of those present within the sampled deposit as possible, within the time available (Stuijts 2006, 28). Twenty five fragments of wood charcoal

greater than 4mm in size, and twenty five fragments greater than 2mm in size, were examined with the aim of reducing bias related to differential fragmentation.

Feature	Posthole 213	
Context	214	
Sample	3	
Phase / date	Probable Neolithic	
Number / weight of fragments	**number of fragments**	**Weight of fragments (g)**
Elm (*Ulmus* sp.)	1	0.003
Oak (*Quercus* sp.)	19	0.349
Hazel (*Corylus avellana* L.)	3	0.054
Poplar / Willow *(Populus* / *Salix*)	4	0.021
Blackthorn (*Prunus spinosa* L.)	8	0.219
Cherry / Blackthorn (*Prunus* sp.)	1	0.018
Hawthorn / Sorbus group (Pomoideae)	11	0.668
Ash (*Fraxinus excelsior* L.)	1	0.005
Indeterminate	2	0.092
Total number / weight of fragments	**50**	**1.429**

Table 17. Wood charcoal from posthole fill (214)

The charcoal assemblage is summarised in Table 17, and full composition of the samples is given in the archive (Appendix 1). Nomenclature follows Stace (2010). Identified charcoal fragments were grouped by taxa, weighed and stored in sealable plastic bags.

Preservation

Preservation of the charcoal fragments was very good with only two fragments being unidentifiable due to poor preservation. Levels of vitrification, whereby charcoal takes on a glassy appearance with anatomical features becoming fused and unidentifiable, were low with only six fragments exhibiting some form of vitrification and no fragments exhibiting total vitrification. Many of the fragments were however affected by mineralisation, whereby mineral deposits penetrate into the vessels of the charcoal fragments, obscuring morphological characteristics. Although this did not significantly hamper identification, it may have resulted in the under recording of aspects of the ligneous structure of the charcoal fragments such as fungal hyphae.

Charred Plant Remains

The composition of the assemblage is listed in Table 16. A single fragment of probable cereal grain was present in the posthole fill (214) which was too poorly preserved for further identification. Also present were 90 parenchyma fragments greater than 1mm in size, of which 14 could be identified as *Malus sylvestris* (L.) Mill. (crab apple), due to the presence of endocarp. A further twenty one fragments were identified as Roasaceae (rose family) exocarp due to the presence of outer skin. It is likely that the association of the apple pericarp with the parenchyma fragments and exocarp all represent fragments of whole charred apples.

Charcoal

The number, and weight in grams, of wood charcoal fragments of each taxa present in the sample, is listed in Table 17. The total weight of each species is given as fragment counts and may be misleading in terms of the dominant species type utilised for fuel due to the differing susceptibility of fragmentation of different species. It must be noted, however, that comparison of proportions of charcoal taxa present by weight may also be somewhat misleading due the varying densities of different species and the effect on the weight of charcoal of different charring conditions. The proportions of each species present, represented as weight and number of fragments in Diagram 1, demonstrate that there is some variation in the proportion of each taxa

present when represented as fragment number compared to fragment weight. Pomoideae comprised a much greater proportion of the sample when represented as weight of fragments than by number. This was due to the majority of the Pomoideae fragments that were present being larger than 4mm in size. Oak and poplar/willow charcoal, however, comprised a larger proportion of the assemblage when represented as number of fragments than by weight. This was due to the presence of around twice as many oak charcoal fragments that were less than 4mm in size as compared to the number that were larger than 4mm in size, and all the poplar/willow charcoal fragments being less than 4mm in size.

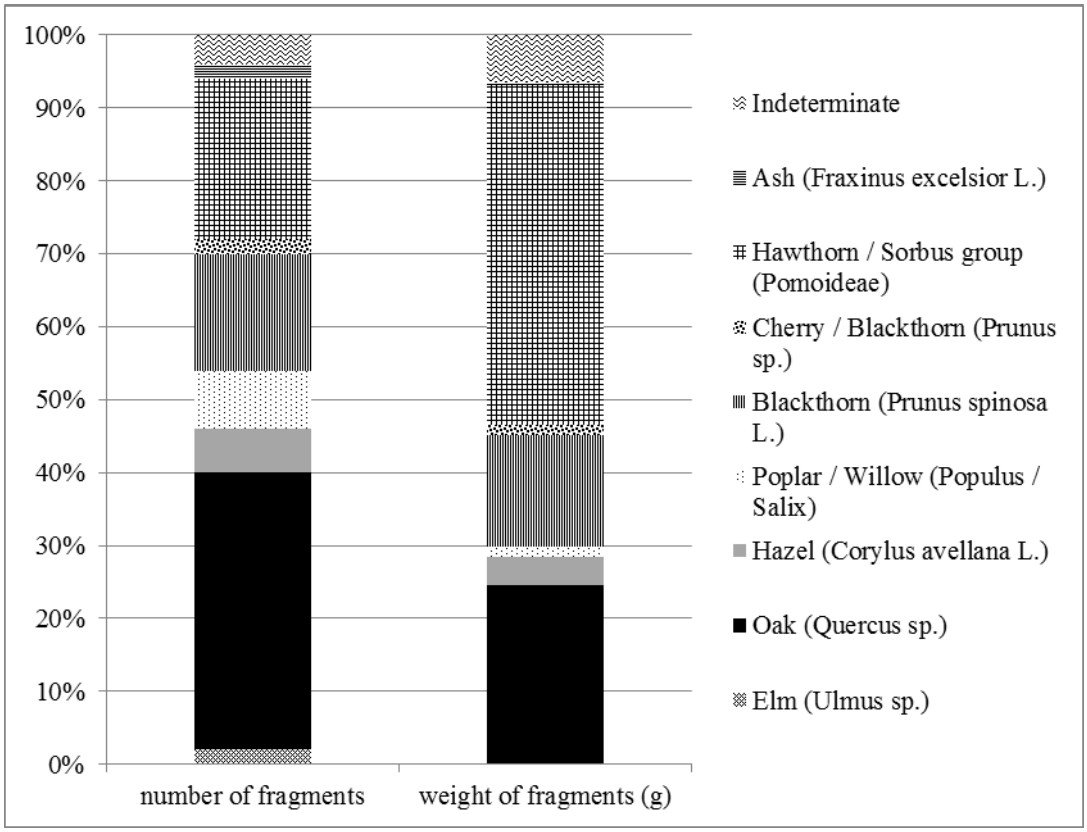

Diagram 1. Proportions of woody taxa present in posthole fill (214) represented as both number and weight of fragments

The taxa identified as present in the charcoal assemblage from the posthole fill (214) were *Ulmus* sp. (elm), *Quercus* sp. (oak), *Corylus avellana* L. (hazel), *Populus*/*Salix* (poplar/willow) *Prunus spinosa* L. (blackthorn), *Prunus* sp. (cherry or blackthorn), Pomoideae (hawthorn, apple, pear, rowan family), and *Fraxinus excelsior* L. (ash).

Elm charcoal cannot be identified to species using morphological characteristics. The three species of elm which are probably native to the British Isles are *Ulmus glabra* Huds. (wych elm), *Ulmus procera* Salisb. (English elm) or *Ulmus minor* ssp. *minor* Mill. (small leaved elm) (Godwin 1975, 244). Oak charcoal cannot be identified to species using morphological characteristics so either *Quercus petraea* (Matt.) Leibl. (sessile oak) or *Quercus robur* L. (pendunculate oak) is represented. It is difficult to differentiate between charcoal of poplar and willow (*Populus/Salix*) using morphological characteristics and a number of different native species could potentially have been present. The charcoal identified as *Prunus* sp. was too poorly preserved for further identification, but is likely to represent either wild or bird cherry or blackthorn. Pomoideae is a large sub-family of the Rosaceae (rose family), containing many species, although the native woody plant species most likely

represented would be *Pyrus communis* L. (wild pear), *Malus sylvestris* (L.) Mill. (crab apple), *Sorbus domestica* L. (service tree), *Sorbus aucuparia* L. (rowan), *Sorbus aria* (L.) Crantz. (common whitebeam), *Crataegus monogyna* jacq. (hawthorn) or *Crataegus laevigata* (Poir.) DC. (Midland hawthorn). The presence of apple endocarp fragments in the charred plant remains assemblage indicates that crab apple wood would have been available.

Where observable, the ring curvatures of the charcoal fragments were either weak or intermediate indicating the use of primarily larger branches or trunk material. One fragment of Pomoideae was however found to have a strong ring curvature representative of round wood with pith and five growth rings. Fungal hyphae, which indicate the burning of dead or dying wood (Marguerie and Hunot 2007), were observed in thirteen of the charcoal fragments. Radial cracks, which are common in taxa with large rays such as *Prunus* and *Quercus*, were observed in three charcoal fragments, two of which were of *Prunus* species, and one was of *Quercus* sp.

Discussion

The presence in posthole fill of charred wild food remains along with cereal grain is typical for Neolithic sites in Britain (Moffet *et al*. 1989, Jones and Rowley-Conwy 2007). Hazel nut shell is more commonly recovered than apple, but charred apple was present in a hearth context at the Neolithic settlement site of Hazard Hill, near Totnes in South Devon (Taylor 1963, 30). Crab apple is an underwood, scrub or hedgerow tree (Rackham 2003, Stace 2010), and is frequent in oak woods (Tansley 1968). The presence of apple is therefore likely to represent the utilization of wild woodland, woodland margin or scrub food resources. The composition of the charcoal assemblage from posthole fill (214) is consistent with the presence of open woodland or scrub in the local environment (see below). The presence of a poorly preserved cereal grain also indicates the cultivation of crops. Charred cereal remains were recovered from Neolithic deposits at Castle Hill in East Devon (Stevens 1999).

The apple is likely to have become charred by accident during cooking or drying or possibly charred deliberately for ceremonial purposes. It is also possible that the remains of apple were charred accidentally along with the Pomoideae wood which was used as fuel. Evidence for the drying of apples has been recovered in Neolithic settlement deposits at Tankardstown in Ireland (Monk 1988) as well as at Neolithic sites in continental Europe (Halbeak 1952). Neolithic pits at Yarnton in Oxfordshire, containing formally deposited artefacts, selected animal bone, charred hazel nutshell, apple and sloe, were interpreted as representative of possible ritual deposition (Hey *et al.* 2003). The cereal grain is also most likely to have been charred by accident during crop processing or food preparation.

The composition of the charcoal assemblage from the posthole fill (214) was relatively diverse, with a range of taxa represented. Oak is one of the most common woodland trees in Britain and would have been widespread in the woodlands of the Neolithic (Goodwin 1979). Oak can be readily coppiced and pollarded, is an excellent structural timber (Rackham 2003), and burns hot and slowly as a fuel wood, once it has been well seasoned (Edlin 1949). Ash is a common woodland tree, particularly on calcareous soils, growing in association with maple and hazel. Ash is a particularly useful fuel wood as it can be readily burned green without seasoning (Edlin 1949). Elm is also generally a woodland tree although it was in decline during the Neolithic, likely due to a combination of exploitation for fodder, clearance for agriculture and increased susceptibility to disease (Rackham 2003). Elm is a good fuel wood although needs to be well-seasoned due to a high water content (Edlin

1949). Willow favours damp or wet soils, while poplar grows on more of a variety of soils and both are relatively poor fuel woods requiring a lot of seasoning (Edlin 1949).

Hawthorn, wild apple, wild pear and members of the rowan family which are represented by Pomoideae, all form part of southern British mixed deciduous woodland understory communities alongside hazel (Rodwell 1991). All are good fuel woods and hazel can be readily coppiced to produce poles for wattle work (Rackham 2003, 206). Blackthorn or sloe is also a small understory, woodland margin tree or shrub forming dense spiny thickets, which also produces edible fruits (Rackham 2003). *Cratageus-Hedera* scrub, which is dominated by hawthorn and other thorny scrub species, but includes saplings of woodland trees such as oak and elm, forms the majority of modern sub-climax woody vegetation on circumneutral to base rich soils in Britain (Rodwell 1991). Hawthorn and blackthorn are also useful as hedging or fencing to contain animals due to their spiny habit (Rackham 2003).

Oak, Pomoideae and blackthorn all comprise relatively high proportions of the charcoal assemblage with small proportions of hazel, poplar or willow, elm and ash. Charcoal assemblage composition is likely to be related to a number of factors, including differences in the availability of local fuel woods and anthropogenic fuel wood selection strategies, as well as to taphonomic factors such as differential charcoal preservation and recovery (Shackleton and Prins 1992, Asouti and Austin 2005, Théry-Parisot e*t al.* 2010). It is likely that the proportions of the taxa represented in the charcoal assemblage from High Peak do not directly reflect the abundance of woody taxa in the surrounding landscape and are more likely to be related to the selection of certain taxa over others for use as fuel as well as to issues of taphonomy. However, the association of woodland taxa with scrub or woodland margin taxa in the posthole fill, does suggest that open woodland or woodland with clearings was likely to have been present in the vicinity of the site during the Neolithic period as well as possible scrub vegetation.

Pollen sequences from the Exe Valley indicate woodland of mixed elm, lime, oak and hazel was present in the valley lowlands until around 3000 BC with oak and hazel on the uplands prior to deforestation (Fyfe *et al.* 2003). Woodland disturbance in the region during the Neolithic is indicated in a pollen sequence from the Lower Exe valley and characterized by a series of elm declines. The second elm decline was dated to 3640–3370 cal BC and associated with the first record of cereal type pollen grains in the sequence (Fyfe *et al.* 2003, 176). Charcoal from Neolithic deposits at Castle Hill in East Devon included oak, hazel, blackthorn, Pomoideae and willow/poplar, indicating the presence of marginal woodland, heathland or scrub in the local environment (Gale 1999).

A range of taxa representative of open woodland, woodland margins and scrub, including oak, elm, ash, willow or poplar, Pomoideae, blackthorn and hazel, were present. The presence of fragments of charred crab apple (*Malus sylvestris* (L.) Mill.), in the charred assemblage is consistent with the utilization of woodland or woodland margin food resources. The presence of a single poorly preserved cereal grain fragment also indicates the cultivation of crops.

7.3 Radiocarbon date of ditch F202 *by Michael J. Allen*

There was a limited amount of material suitable for radiocarbon dating. Many of the sampled post-Roman features could not be effectively dated as either no short-lived charred plant or charcoal remains were present, or the material did not clearly represent a single-event deposit.

Of the post-Roman features, fill (205) in ditch F202, was a discrete deposit containing a large number of wood charcoal fragments; *Corylus avellena* (hazel) roundwood with four or less rings (ident. Dr A.J. Clapham) were present and selected as suitable short-lived material. Two samples were submitted because the preservation of the charcoal was highly and variably mixed.

The AMS radiocarbon results are given in Table 18, and presented as probability distributions in Diagram 2. Calibration of the results has been performed using the data set published by Reimer *et al.* (2004) and performed using the programme OxCal v4.2.3 (www.flaha.ox.ac.uk/). The calibrated date ranges in text are cited with 95% confidence and have been rounded out to the nearest 10 years (Mook 1986).

The results indicate that the deposit is not a single-event deposit, and that considerable residuality is represented by the two dated items. They are not statistically indistinguishable at the 95% confidence limit (Ward and Wilson 1978), so the integrity of the deposit and dates must be questioned. Nevertheless, the results indicate that the charcoal deposit in ditch F202 dates to cal AD 380-540 and 550-640, indicating possible late Romano-British activity, with majority of the date distributions firmly in the early post-Roman period.

Feature	Context	Sample	Material	*Lab no*	*Result BP*	*δC13 (‰)*	*Cal AD*
Ditch F202	205		*Corylus avellana*	SUERC-47027	1466±27	-24.4	AD 550-640
Ditch F202	205	4	*Corylus avellana* <4 rings	SUERC-48997	1619±29	-27.0	AD 380-540

Table 18. Radiocarbon result

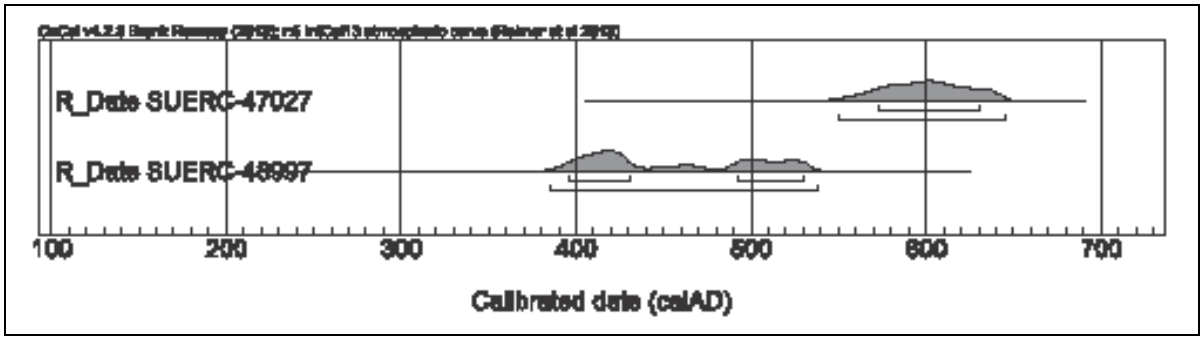

Diagram 2. Radiocarbon dates probability distributions

8. DISCUSSION

8.1 The current project has confirmed Pollard's results that two distinct phases of occupation are evident at High Peak. The first phase is of Early Neolithic date with the corpus of 1183 stone artefacts and 39 sherds of pottery adding to those previously collected from the site and indicate use of the hilltop in the fourth millennium BC. The second phase, with imported Mediterranean pottery and ditch and rampart features, is post-Roman in date and is a rare example of hilltop fortification constructed in the 5th-6th centuries AD.

8.2 Early Neolithic

Few secure Neolithic features were recorded. The majority of Neolithic finds were in redeposited contexts. A single posthole F213, which was cut by the post-Roman

ditch, and a solitary tree throw pit F224 can possibly be regarded as features of Neolithic date. The absence of Neolithic features should not be seen as evidence that further Neolithic features beyond those excavated by Pollard in 1960s do not exist, rather it is due to the limitations of the excavations, which did not get down to the Neolithic contexts where they were expected to occur.

8.3 Neolithic causewayed enclosures are rare in SW England and High Peak with the others in East Devon (Hembury, Raddon Hill and possibly Membury) are the most southwesterly of the corpus (assuming that the Early Neolithic sites at Haldon and Hazard hills are unenclosed – see Griffith 2001). Oswald *et al.* (2001), in their review of causewayed enclosures in Britain, noted that they were often sited in what might have been perceived as liminal places in terms of setting and status on the junction between high ground and valley. High Peak is on the junction between land and sea and can be seen to have a similar topographic status. The many sites examined by the East Devon Pebblebed Project have also indicated that the dominant topographical position of High Peak was one marked by funerary and ritual architecture to the west of the site for some distance in the Bronze Age (Tilley 2010).

8.4 Post-Roman

Ditches (F202, F302 and F402) may be considered as the same ditch which runs to the west of the 'inner' ditch identified by Pollard. It also appears to be the case that Pollard excavated the top of this ditch in her Trench B, but did not recognise or pursue it, and the location is marked as 'Dark Age Cooking Area II' in her published section drawing (Pollard 1966: Fig. 4). The current project excavated Trench 2 directly adjacent to and south of Pollard's trench and sherds from ditch F202 (fills 204 and 206) are almost certainly from the same amphora that Pollard excavated in Trench B and were from 'Dark Age Cooking Area II' which links the fills of the ditches in both trenches, providing confirmation that Pollard had partially excavated the outer ditch without recognising it.

8.5 Ditch F502 at the north end of the terrace is less easy to associate with other known ditch features. It could be regarded as related to either the inner or outer ditch and its continuation to the northeast may be in the ditches picked up by Pollard in her trenches C and H. The ditch in Trench C was only partially excavated but Pollard (1966: Fig. 8) exposed a complete profile of the ditch in Trench H, which has a similar profile to ditch F502 with steep sides and flattened base and very similar width measurements, Pollard's 3.81m with F502 3.72m and slightly divergent depth measurements of 2.21m and 1.82m respectively. Similarly, but almost directly adjacent to the southwest, the ditch identified in Pollard's Trench A matches the profile of F502 but has smaller dimensions of 3.20m wide and 1.52m deep. This difference can be accounted for by the fact that Pollard did not fully expose the internal lip of the ditch which would have provided greater figures for the width and depth of the ditch from the higher internal side. There can be little doubt though that this is the same ditch and that all three ditches found in the north of the site and F502 are segments of the outer ditch, rather than the inner or complexities related to an entrance which Pollard (and indeed Hutchinson 1849, 144) posited for the area in the north of the assumed circuit.

8.6 Due to bad weather Pollard did not complete Trench F. She was satisfied that she had identified the outer lip of her ditch, but did not pursue the trench further, if she had, as in her Trench B, she would have revealed the top of the outer ditch.

8.7 Rampart material (218 and 310) and the set of three postholes (F211, F220 and F222) located external to the outer ditch may indicate a further set of earthworks

further down the terrace, the terrace itself may be the result of this, but equally they may represent counterscarp banks forming the outermost set of earthworks.

8.8 Use of defended hilltop locations in the post-Roman period in South-West England is well-attested and in the majority of cases this involves the refurbishment of Iron Age hillforts, the best examples being Cadbury Congresbury and Cadbury Castle, both in Somerset (Rahtz 1992, Barrett *et al.* 2000). In Devon the hillfort at Raddon Hill may have been re-furbished and occupied in the 5th to 7th centuries (Gent and Quinnell 1999). Further west, enclosed settlements are used over the long-term, from later prehistory and through the Romano-British period and, for example, up to the 6th century at Trethurgy Round in Cornwall (Quinnell 2004). Re-use of Iron Age promontory forts/cliff castles in late Roman or post-Roman periods has also been attested, for example at Trevelgue Head, on the north coast of Cornwall. Here Rampart 8 may have been constructed in the Romano-British period, but it is unusual in having the ditch on the seaward side and as such, instead of enhancing the multiple defences enclosing the headland, it forms a separate enclosure inside Rampart 7 (Quinnell 2011). In contrast, post-Roman new-build forts are rare. In SW England excavations in the 1990s at Tintagel showed the large rock-cut 'Great Ditch' on the mainland adjacent to the promontory, previously thought to relate to the medieval castle remains, has now been shown to be post-Roman in date and relate to the extensive evidence of post-Roman occupation on Tintagel Island (Barrowman *et al.* 2007). Closer to High Peak, on the South Devon coast, antiquarian reports of a fort-like structure at Bantham Ham have not yet been substantiated (Griffith and Reed 1998).

8.9 The evidence at High Peak indicates that this is a site not occupied in the Iron Age or Romano-British period and that the enclosure of the hilltop or promontory was achieved by the construction of two ditches with internal ramparts. The bivallate complexity of the ditches and ramparts at High Peak makes this site unique, so far, for the post-Roman period in SW England. In a British context we have to look north to Dinas Powys in South Wales, where the Iron Age fortifications have been extended, or Carew Castle in Pembrokeshire where four rock-cut ditches enclosed a low-lying promontory on the shore of Milford Haven. In North Wales a stone wall enhances natural crags to enclose a hilltop at Dinas Emrys. Arnold (2000) notes that of the several sites known in Wales from the 5th-7th centuries AD they are connected topographically by a need for defence and access to the sea. Much further north are the early medieval forts of Scotland, for example Dunadd in Argyle, where two sets of stone built walls enclosed a precipitous outcrop in the 6th-8th centuries (Lane and Campbell 2000). It is clear that complex new builds appear in Britain in the 5th and 6th centuries AD.

8.10 The coastal location of High Peak is typical of sites in South-West England (and elsewhere in Britain) which have imported Mediterranean wares in the post-Roman period. Reed *et al.* (2011) note that the major finds of amphorae come from Tintagel, Bantham, Cadbury Congresbury, Cadbury Castle, Dinas Powys, Trethurgy Round and two sites not already mentioned above, Longbury Bank, a promontory on the Pembrokeshire coast and Whithorn, the site of an early abbey on the coast of Dumfries and Galloway, Scotland. The total amount of amphorae from High Peak places it alongside these sites, indeed, it is greater than that from Longbury Bank and Trethurgy Round and only just short of the corpus for Cadbury Castle. In regard to types represented all of the other sites except those in Somerset and Longbury Banks had sherds that could be identified from North African amphora. LRA2 amphorae, which are typical of all sites, and identified at High Peak, is rare but present at Bantham and Mothecombe.

9. CONCLUSIONS

9.1 Early Neolithic

The mass of worked flint and small assemblage of pottery further attests to Early Neolithic occupation of the hilltop at High Peak and provides a useful addition to the assemblage of artefacts from the site and the region. It is clear that the users of High Peak in the Early Neolithic were exploiting resources close at hand in terms of silicaeous stone and a little further afield for clay for pots. But the small percentage of gabbroic ware identified by this project, and the polished stone axe of Cornish origin, not forgetting the Alpine origin for the material used to make the jadeite axe fragment, both found by Pollard, show that, as is typical for causewayed enclosures, materials from distant sources were ending up deposited at High Peak.

9.2 Further elucidation of the nature of prehistoric settlement on High Peak was not forthcoming in this project. The site is listed only as a 'possible', rather than 'confirmed', causewayed enclosure in the English Heritage review of this site type (Oswald *et al.* 2001). Notwithstanding the wealth of Early Neolithic material collected in the previous and current excavations, this status remains unchanged.

9.3 Post-Roman

No further evidence, proposed by Pollard, of an attack on the fort and destruction of the ramparts was forthcoming.

9.4 The excavation targeted the area of the terrace to explore the possibility of an outer rampart with unexpected results. What was originally believed to be a univallate hillfort can now be recognised as, at the very least, bivallate. As such, High Peak may be regarded as one of the elite settlements of the post-Roman South-West, with its substantial defences and access to exotic goods, which are ultimately of Mediterranean origin. The ceramic assemblage is not, so far, and probably never likely to be, as diverse as those from Bantham and Tintagel, in particular the absence of fineware is notable. However, a new-build fort at this time, in a period of instability due to the vacuum left by the demise of Roman authority, must have impacted significantly on the population of the time. The need for local political power or the effects of distant Saxon settlement to the east or more local raiding from the sea may, in part or all, be seen as motivation for the dramatic transformation of the hilltop at High Peak in the 5th-6th centuries AD.

9.5 The two ramparts illustrated by Hutchinson in 1851 (Butler 2000, 55) that in the recent past may have been considered to be an exaggerated representation of the surviving earthworks at High Peak, may actually be closer to how he found the northern part of the circuit prior to erosion and certainly gives a good sense of a bivallate form for the earthworks.

10. ARCHIVE

10.1 The paper and digital archive and finds are currently held at the offices of AC archaeology Ltd, in Unit 4 Halthaies Workshops, Bradninch, near Exeter, Devon, EX5 4LQ. They will be deposited in the RAMM Exeter under acquisition number 12/25.

10.2 An online OASIS entry has been completed, using the unique identifier 151729, which will include a digital copy of this report.

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12. REFERENCES

Unpublished

Horner, B. 2010: *Unlocking our Coastal Heritage: Historic Environment Consultancy, Project Brief*. Devon County Council.

Hutchinson, P. O. 1870-1881: *A History of Sidmouth*, Vol. 1, MS, DRO.

James, T. 2012: *The Southwest Coast Path 'Unlocking Our Coastal Heritage' Project: High Peak Camp, Otterton, East Devon – Written Scheme of Investigation for a Staged Programme of Archaeological Investigations.* Unpublished AC archaeology document, ref. ACD448/2/3.

Otterton Tithe Map 1844 and Apportionment 1843, DRO.

Quinnell, H. 2012 *Project Dixie and Hayes Farm – Assessment of the prehistoric pottery*, Cotswold Archaeology.

Quinnell, H., Bayer, O., Dymond, T. and Newberry, J. in prep. 'Lithic finds from field walking in and around the Loman valley near Tiverton'.

Published

Agate, A., Duggan, M., Roskams, S. and Turner, S., 2012: 'Early medieval settlement at Mothecombe, Devon: the interaction of local, regional and long-distance dynamics', *Archaeological Jnl* 169, 343-94.

Anderberg, A.L. 1994: *Atlas of Seeds and Small Fruits of Northwest-European Plant Species with Morphological Descriptions, Part 4: Resedaceae-Umberliferae* (Stockholm)

Arnold, C.J. 2000: 'Settlement'. In C.J. Arnold and J.L. Davies (eds) Roman and Early Medieval Wales, 156-165 (Stroud: Sutton)

Asouti, E. and Austin, P. 2005: 'Reconstructing woodland vegetation and its exploitation by past societies, based on the analysis and interpretation of archaeological wood charcoal macro-remains', *Environmental Archaeology* 10, 1-18.

Barrett, J.C., Freeman, P.W.M. and Woodward, A. 2000: *Cadbury Castle, Somerset: The Later Prehistoric and Early Historic Archaeology* (London: English Heritage)

Barrowman, R.C., Batey, C.E. and Morris, C.D. 2007: *Excavations at Tintagel Castle, Cornwall, 1990-1999* (London: Society of Antiquaries).

Berggren, G., 1981: *Atlas of Seeds and Small Fruits of Northwest-European Plant Species, with Morphological Descriptions, Part 3: Salicaceae-Crucifera* (Stockholm)

Bidwell, P., Croom, A.T. and McBride, R. 2011: 'The pottery assemblage'. In Reed *et al.* 2011, 93-117.

Bonifay, M. and Raynaud, C. 2007: 'Échanges et consummation'. In J. Guyon and M. Heijmans (eds) 'Antiquité tardive, haut Moyen Âge et premiers temps Chrétiens en Gaule Méridionale' *Gallia* 64, 93-161.

Bronk Ramsey, C. 1995: 'Radiocarbon calibration and analysis of stratigraphy: The OxCal program'. *Radiocarbon* 37, 425-30.

Bronk Ramsey, C. 1998: 'Probability and dating'. *Radiocarbon* 40, 461-74.

Bronk Ramsey, C, 2001: 'Development of the radiocarbon calibration program OxCal'. *Radiocarbon* 43, 355-63.

Butler, J. 2000: *Peter Orlando Hutchinson's Travels in Victorian Devon: Illustrated Journals and Sketchbooks, 1846-1870* (Tiverton: Devon Books).

Butler, J. 2010: *Diary of a Devon Antiquary: The Illustrated Journals and Sketchbooks of Peter Orlando Hutchinson, 1871-1894* (Wellington: Halsgrove).

Campbell, E. 2007: *Continental and Mediterranean Imports to Atlantic Britain and Ireland, AD 400-800*. Council for Brit. Arch. Res. Rep. 157 (York).

Carter, G.E. 1930: 'Second Report of the Archaeological Section', *Rep. Trans. Devonshire Ass.* 62, 119-20.

Clapham, A.J. and Stevens C.J. 1999: 'The charred plant remains: environmental and economic evidence'. In A.P. Fitzpatrick, C.A. Butterworth and J. Grove (eds) *Prehistoric and Roman Sites in East Devon: The A30 Honiton to Exeter DBFO Improvement Scheme 1996-9. Volume 1: Prehistoric Sites*, 196-207, Wessex Archaeology Report 16 (Salisbury)

Fernández Fernández, A. 2010: 'Rías Baixas and Vigo (Vicus Eleni)'. In C. Carreras and R. Morais (eds) *The Western Roman Atlantic Façade: A Study of the Economy and Trade in the Mar Exterior from the Republic to the Principate,* 229-37, Brit. Arch. Rep. Int. Ser. 2162 (Oxford).

Fitzpatrick, A.P., Butterworth, C.A. and Grove, J. 1999: *Prehistoric and Roman sites in East Devon: the A30 Honiton to Exeter improvement DBFO Scheme, 1996-9, Volume 2,* Wessex Archaeology Rep. 16 (Salisbury).

Fox, A. and Ravenhill, W. 1959: 'Stoke Hill Signal Station', *Rep. Trans. Devonshire Ass.* 91, 71-82.

Fulford, M.G. 1989: 'Byzantium and Britain: a Mediterranean perspective on post-Roman Mediterranean imports in Western Britain and Ireland', *Medieval Archaeol.* 33, 1-6.

Fyfe, R.M., Brown A.G. and Coles B.J., 2003: 'Mesolithic to Bronze Age vegetation change and human activity in the Exe Valley, Devon, UK' *Proc. Prehis. Soc.* 69, 161-81.

Gale, R., 1999: 'The charcoal: environmental and artefactual evidence'. In A.P. Fitzpatrick, C.A. Butterworth and J. Grove (eds) *Prehistoric and Roman Sites in East Devon: The A30 Honiton to Exeter DBFO Improvement Scheme 1996-9. Volume 1: Prehistoric Sites*, 194-96, Wessex Archaeology Report 16 (Salisbury)

Gent, T.H. and Quinnell, H. 1999: 'Excavations of a causewayed enclosure and hillfort n Raddon Hill, Stockleigh Pomeroy', *Proc. Devon Archaeol. Soc.* 57, 1-75.

Green, H.S. 1980: *The Flint Arrowheads of the British Isles.* Brit. Arch. Rep. Brit. Ser. 75 (Oxford).

Griffith, F.M. 2001: 'Recent work on Neolithic enclosures in Devon'. In T. Darvill and J. Thomas (eds) *Neolithic Enclosures in Atlantic Northwest Europe*. Neolithic Studies Group Seminar Papers 6, 66-77 (Oxford: Oxbow)

Griffith, F.M. and Reed, S.J. 1998: 'Rescue recording at Bantham Ham, South Devon, in 1997', *Proc. Devon Archaeol. Soc.* 56, 109-31.

Hather, J. 2000: *The Identification of the North European Woods: A Guide for Archaeologists and Conservator* (London: Archetype)

Hayes, J.W. 1972: *Late Roman Pottery* (London: British School at Rome).

Helbaek, H. 1952: 'Early crops in southern England'. *Proc. Prehist. Soc.* 18, 194-233.

Hey, G., Mulville, J and Robinson, M. 2003: 'Diet and culture in southern Britain: the evidence from Yarnton'. In M. Parker Pearson (ed.) *Food Culture and Identity in the Neolithic and Early Bronze Age*, 79-88. Brit. Archaeol. Rep. Int. Ser. 1117 (Oxford)

Howarth, R.J. 2004: 'Strahan, Sir Aubrey (1852–1928)', *Oxford Dictionary of National Biography*, available at: http://www.oxforddnb.com/view/article/38018, [accessed 29 Dec 2012]

Hutchinson, P.O. 1846-94: 'Manuscript diaries', *Devon Record Office and the Peter Orlando Hutchinson Project*, available at: http://www.eastdevonaonb.org.uk/index.php?page=poh-transcripts [accessed 20.12.2012]

Hutchinson, P.O. 1849: 'A dissertation on the site of Moridunum, on the south coast of Devonshire', *Gentleman's Magazine* 31, 137-146.

Jones, G. and Rowley-Conwy, P. 2007: 'On the importance of cereal cultivation in the British Neolithic'. In S. Colledge and J. Conolly (eds) *The Origins and Spread of Domestic Plants in Southwest Asia and Europe*, 391-419 (London: Institute of Archaeology)

Kirwan R. 1871: 'Notes on the pre-historic archaeology of east Devon', *Rep. Trans. Devonshire Ass.* 4, 641-53.

Laidlaw, M. 1999: 'Pottery'. In Fitzpatrick *et al.* 1999, 148-52.

Lane, A. and Campbell, E. 2000: *Dunadd: An Early Dalriadic Centre* (Oxford: Oxbow).

Leverett, M. and Quinnell, H. 2010: 'An Early Neolithic Assemblage from Wayland's, Tiverton', *Proc. Devon Archaeol. Soc.* 68, 1-14.

Longin, R. 1971: 'New method of collagen extraction for radiocarbon dating'. *Nature* 230, 241–42.

Margueire, D. and Hunot, J.V. 2007, 'Charcoal analysis and dendrology: data from archaeological sites in north-western France'. *Jnl of Archaeol. Sci.* 34, 1417-1433.

Mercer, R. 1981: 'Excavations at Carn Brea, Illogan, Cornwall - a Neolithic fortified complex of the Third Millennium bc', *Cornish Archaeol.* 20, 1-204.

Ministry of Works, 1964: *Schedule of Monuments*. (London: HMSO)

Moffett, L. Robinson, M.A. and Straker, V. 1989: 'Cereals, fruits and nuts: charred plant remains from Neolithic sites in England and Wales and the Neolithic economy'. In A. Milles, D. Williams and N. Gardner (eds) *The Beginnings of Agriculture*, 243-261. Brit. Archaeol. Rep. Int. Ser. 496 (Oxford)

Monk, M. 1988: 'Archaeobotanical study of samples from pipeline sites'. In M. Gowen (ed.) *Three Irish Gas Pipelines: New Archaeological Evidence in Munster*, 185-191 (Dublin: Wordwell)

Mook, W.G. 1986: 'Business meeting: recommendations/resolutions adopted by the twelfth International Radiocarbon Conference'. *Radiocarbon* 28, 799.

Ordnance Survey 1st edition 25-inch Devon Sheet 95:4, surveyed 1888, published 1889.

Ordnance Survey 2nd edition 25-inch Devon 95:4 surveyed 1888, revised 1903, published 1905.

Oswald, A., Dyer, C. and Barber, M. 2001: *The Creation of Monuments: Neolithic Causewayed Enclosures in the British Isles* (London: English Heritage).

Peacock, D.P.S. 1969: 'Neolithic pottery production in Cornwall', *Antiquity* **43**, 145-149.

Peacock, D.P.S. and Williams, D.F. 1986: *Amphorae and the Roman Economy: An Introductory Guide* (London: Longman).

Pollard, S.H.M. 1966: 'Neolithic and Dark Age settlements on High Peak, Sidmouth, Devon', *Proc. Devon Archaeol. Explor. Soc.* 23, 35-59.

Pollard, S.H.M. 1967: 'Radiocarbon dating Neolithic and Dark Age settlements on High Peak, Sidmouth, Devon', *Proc. Devon Archaeol. Explor. Soc.* 25, 41-2.

Quinnell, H. 2004: *Excavations at Trethurgy Round, St Austell: Community and Status in Roman and Post-Roman Cornwall* (Truro: Cornwall County Council).

Quinnell, H. 2011: 'Trevelgue Head in the Roman and post-Roman periods'. In J.A Nowakowski and H. Quinnell (eds) *Trevelgue Head, Cornwall: The Importance of CK Croft Andrew's 1939 Excavations for Prehistoric and Roman Cornwall*, 356-368 (Truro, Cornwall Council).

Quinnell. H. and Taylor, R. 1999: 'Pottery'. In T.H. Gent and H. Quinnell, 'Salvage recording on the Neolithic site at Haldon Belvedere', *Proc. Devon Archaeol. Soc.* 57, 95-8.

Quinnell, H. and Taylor, R. 2012: 'Prehistoric pottery and fired clay'. In M. Gillard and H. Quinnell 'Prehistoric activity and artefacts at the Donkey Sanctuary, Trow Farm, Holcombe Regis', *Proc. Devon Archaeol. Soc.* 70, 52-7.

Rackham, O. 2003: *Ancient Woodland: Its History, Vegetation and Uses in England* (Dalbeattie: Castlepoint)

Rahtz, P. 1992: Cadbury-Congresbury 1968-73: A Late Roman/post-Roman Hilltop Settlement in Somerset. Brit. Arch. Rep. Brit. Ser. 223 (Oxford).

Ralegh Radford, C.A. 1956: 'Imported pottery found at Tintagel, Cornwall'. In D. Harden (ed.) *Dark Age Britain. Studies Presented to E.T. Leeds*, 59-70 (London).

RAMM 2012: William Stewart Mitchell D'Urban (1836-1934)', *Royal Albert Memorial Museum and Art Gallery Website: Collectors,* available at: http://www.rammuseum.org.uk/collections/collectors/william-stewart-mitchell-durban-18361934 [accessed: 20.12. 2012]

Raymond, F. 2006: 'The Earlier Neolithic pottery'. In M. Tingle 'Excavations of a possible causewayed enclosure and Roman site at Membury'. *Proc. Devon Archael. Soc.* 64, 24-36.

Reed, S., Bidwell, P. and Allan, J. 2011: 'Excavation at Bantham, South Devon, and post-Roman Trade in South-West England', *Medieval Archaeol.* 55, 82-138.

Reimer, P.J., Baillie, M.G.L., Bard, E., Bayliss, A., Beck, J.W., Bertrand, C.J.H., Blackwell, P.G., Buck, C.E., Burr, G.S., Cutler, K.B., Damon, P.E., Edwards, R.L., Fairbanks, R.G., Friedrich, M., Guilderson, T.P., Hogg, A.G., Hughen, K.A., Kromer, B., McCormac, G., Manning, S., Bronk Ramsey, C., Reimer, R.W., Remmele, S., Southon, J.R., Stuiver, M., Talamo, S., Taylor, F.W., van der Plicht J. and Weyhenmeyer, C.E. 2004: 'IntCal04 terrestrial radiocarbon age calibration, 0-26 cal kyr BP', *Radiocarbon* 46(3), 1029-58.

Rodwell, J.S. 1991: *British Plant Communities Volume 1: Woodlands and Scrub* (Cambridge: Cambridge University Press)
Saville, A. 1981: 'The flint and chert artefacts'. In Mercer 1981, 101-52.
Saville, A. 2008: 'The flint and chert artefacts'. In R. Mercer and F. Healey (eds) *Hambledon Hill, Dorset, England. Excavation and survey of a Neolithic monument complex and its surrounding landscape,* 648-743 (Swindon: English Heritage)
Schweingruber, F.H. 1990: *Microscopic Wood Anatomy* (Birmensdorf: Swiss Federal Institute for Forest, Snow and Landscape Research)
Shackleton, C.M. and Prins, F.1992: 'Charcoal analysis and the "Principle of Least Effort" - a conceptual model', *Jnl of Archaeol. Sci.* 19, 631-7.
Sheridan, A., Schulting, R., Quinnell, H. and Taylor, R. 2008: 'Revisiting a small passage tomb at Broadsands, Devon', *Proc. Devon Archaeol. Soc.* 66, 1-26.
Slota Jr, P.J., Jull A.J.T., Linick, T.W. and Toolin, L.J. 1987: 'Preparation of small samples for ^{14}C accelerator targets by catalytic reduction of CO'. *Radiocarbon* 29(2), 303–6.
Smith, G. 1987: 'The Lizard Project: Landscape survey 1978-1983', *Cornish Archaeol.* 26, 13-68.
Smith, I.F. 1981a: 'The Earlier Prehistoric Pottery'. In R.J. Silvester, 'Excavations at Honeyditches Roman Villa, Seaton, in 1978', *Proc. Devon Archaeol. Soc.* 39, 57-9.
Smith, I.F. 1981b: 'The Neolithic pottery'. In Mercer 1981, 161-85.
Stace, C. 2010: *New Flora of the British Isles,* 3rd Edition (Cambridge: Cambridge University Press)
Stuijts, I. 2006: 'Charcoal sampling sites and procedures: practical themes from Ireland'. In A. Dufraisse (ed.) *Charcoal Analysis: New Analytical Tools and Methods for Archaeology*, 25-33, Brit. Arch. Rep. Int. Ser. 1483 (Oxford)
Stuiver, M. and Kra, R.S. 1986: 'Editorial comment'. *Radiocarbon* 28(2B), ii.
Stuiver, M. and Polach, H.A. 1977: 'Reporting of ^{14}C data'. *Radiocarbon* 19, 355–63.
Tansley, A.G. 1968: *Britain's Green Mantle*, 2nd edition (London: George Allen and Unwin)
Taylor, G. 1963: 'Report on specimens of charcoal'. In C.H. Houlder 'Neolithic settlement on Hazard Hill, Totnes'. *Proc. Devon Archaeol. Exploration Soc.* 21, 30.
Théry-Parisot, I., Chabal, L. and Chrzavzez, J. 2010: 'Anthracology and taphonomy, from wood gathering to charcoal analysis: a review of the taphonomic processes modifying charcoal assemblages, in archaeological contexts'. *Palaeogeography, Palaeoclimatology, Palaeoecology* 291: 142–53.
Thorpe, C. 2007: 'Ceramics: post-Roman imported'. In Barrowman *et al.* 2007, 231-47.
Tilley, C. 2010: *Interpreting Landscapes: Geologies, Topographies, Identities* (Walnut Creek, Ca: Left Coast Press).
Tingle, M. 1999: 'Flint and chert' in T. Gent and H. Quinnell 'Excavations of a causewayed enclosure and hillfort on Raddon Hill, Stockleigh Pomeroy', *Proc. Devon Archaeol. Soc.* 57, 29-37.
University of Southampton 2005: 'Roman Amphorae: a digital resource', available at: http://archaeologydataservice.ac.uk/archives/view/amphora_ahrb_2005/index.cfm?CFID=573996&CFTOKEN=39545028 (York: Archaeology Data Service) [accessed: 20.12.2012].
Ward, G.K. and Wilson, S.R. 1978: 'Procedures for comparing and combining radiocarbon age determinations: a critique', *Archaeometry* 20, 19–31.
Webster, C. and Mayberry, T. (eds) 2007: *The Archaeology of Somerset* (Wellington: Somerset Books).

Whittle, A., Healy, F. and Bayliss, A. 2011: *Gathering Time. Dating the Early Neolithic Enclosures of Southern Britain and Ireland* (Oxford: Oxbow).

Williams, D. 2005: 'Late Roman Amphora 1: a study of diversification'. In M.B. Briese and L.E. Vaag (eds) *Trade Relations in the Eastern Mediterranean from the Late Hellenistic Period to Late Antiquity: The Ceramic Evidence*, 157-68 (Odense: University Press of Southern Denmark).

Wroth, W.W. 2004: 'Jewitt, Llewellynn Frederick William (bap. 1816, d. 1886)', rev. Margaret O'Sullivan, *Oxford Dictionary of National Biography,* available at: http://www.oxforddnb.com/view/article/14813, [accessed 29 Dec 2012]

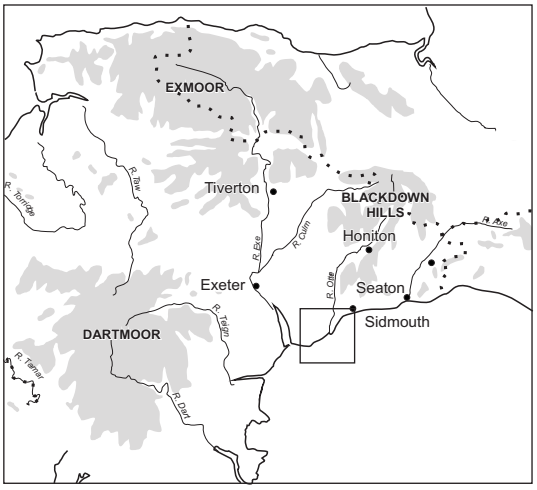
Xu, S., Anderson, R., Bryant, C., Cook, G.T., Dougans, A., Freeman, S., Naysmith, P., Schnabel, C. and Scott, E.M. 2004: 'Capabilities of the new SUERC 5MV AMS facility for 14C dating'. *Radiocarbon* 46, 59–64.

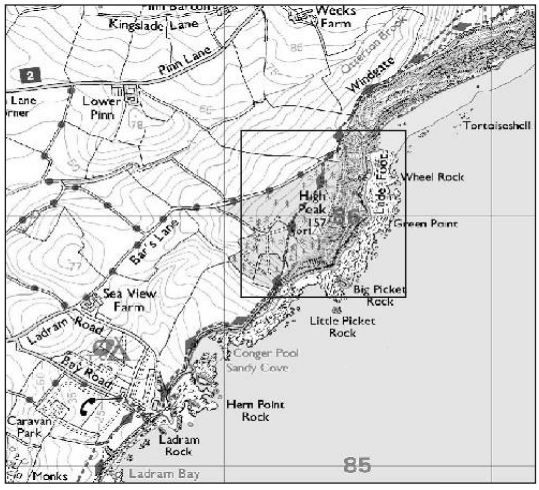
Appendix 1

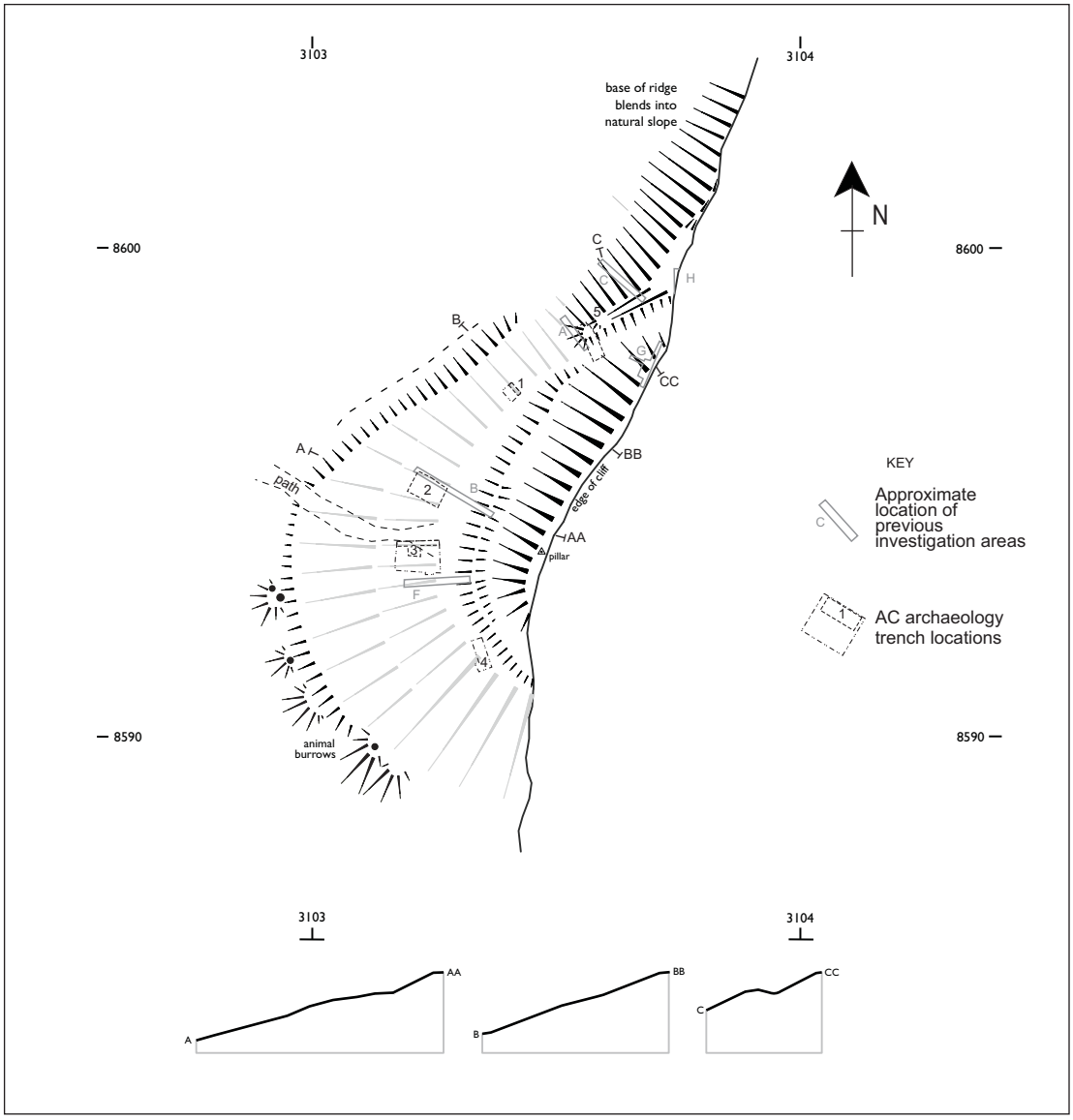
Wood Charcoal Archive Data

SITE CODE / NAME		ACD 448 High Peak, near Sidmouth, Devon			SAMPLE NUMBER			003	
CONTEXT NUMBER		214			TOTAL CHARCOAL WEIGHT			1.429g	
Fragment No.	Fragment Size	Species	Ring Curvature[a]	Narrow rings[b]	Radial Cracks[b]	Tyloses[b]	Fungal Hyphae[b]	Vitrification[c]	Mineralisation[b]
1	4mm	*Quercus* sp.	1	-	-	-	-	2	1
2	4mm	Pomoideae	1	1	-	-	-	-	1
3	4mm	Pomoideae	-	-	-	-	-	-	1
4	4mm	Pomoideae	1	-		-	-	2	-
5	4mm	*Quercus* sp.	2	-	-	-	-	-	-
6	4mm	*Prunus spinosa* L.	1	-	1	-	-	-	-
7	4mm	Pomoideae	3	-	-	-	1	-	1
8	4mm	Pomoideae	1	-	-	-	-	-	-
9	4mm	*Quercus* sp.	1	-	1	-	1	-	1
10	4mm	Pomoideae	1	-	-	-	-	-	1
11	4mm	Indet.	Knot	-	-	-	-	2	-
12	4mm	*Prunus spinosa* L.	1	-	-	-	1	-	-
13	4mm	Pomoideae	1	1	-	-	-	-	1
14	4mm	*Prunus spinosa* L.	1	-	-	-	1	-	1
15	4mm	*Corylus avellana* L.	1	-	-	-	-	-	1
16	4mm	Pomoideae	1	-	-	-	-	-	-
17	4mm	*Quercus* sp.	-	-	-	-	-	-	1
18	4mm	Indet.	Knot	-	-	-	-	-	-
19	4mm	*Quercus* sp.	-	-	-	-	1	-	-
20	4mm	*Quercus* sp.	-	-	-	-	-	-	-
21	4mm	*Prunus spinosa* L.	-	-	-	-	-	1	-
22	4mm	*Prunus spinosa* L.	1	-	-	-	-	-	-
23	4mm	*Prunus spinosa* L.	-	-	-	-	-	-	-
24	4mm	Pomoideae	-	-	-	-	-	2	1
25	4mm	*Quercus* sp.	-	-	-	-	-	-	1
26	2mm	*Prunus* sp.	-	-	1	-	-	-	-
27	2mm	*Quercus* sp.	-	-	-	-	1	-	-
28	2mm	*Prunus spinosa* L.	-	-	-	-	-	1	1
29	2mm	*Corylus avellana* L.	-	-	-	-	1	-	1
30	2mm	*Quercus* sp.	1	-	-	-	-	-	-
31	2mm	*Quercus* sp.	-	-	-	-	-	-	-
32	2mm	*Quercus* sp.	-	-	-	-	-	-	1
33	2mm	*Corylus avellana* L.	-	-	-	-	1	-	1
34	2mm	Pomoideae	1	-	-	-	1	-	-
35	2mm	*Populus* / *Salix*	-	-	-	-	-	-	-
36	2mm	*Quercus* sp.	-	-	-	-	-	-	1
37	2mm	*Populus* / *Salix*	-	-	-	-	1	-	1
38	2mm	*Populus* / *Salix*	-	-	-	-	-	-	-
39	2mm	*Quercus* sp.	-	-	-	-	-	1	1
40	2mm	Pomoideae	-	-	-	-	-	-	1
41	2mm	*Quercus* sp.	-	-	-	-	-	-	1
42	2mm	*Ulmus* sp.	-	-	-	-	1	-	-

43	**2mm**	*Quercus* sp.	-	-	-	-	-	2	-
44	**2mm**	*Quercus* sp.	-	-	-	-	-		-
45	**2mm**	*Quercus* sp.	-	-	-	-	1		-
46	**2mm**	*Prunus spinosa* L.	-	-	-	-	-	1	-
47	**2mm**	*Fraxinus excelsior* L.	-	-	-	-	-		1
48	**2mm**	*Populus* / *Salix*	-	-	-	-	1		1
49	**2mm**	*Quercus* sp.	-	-	-	-	-		-
50	**2mm**	*Quercus* sp.	-	-	-	-	-	2	-







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High Peak Camp, Otterton, East Devon

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Fig. 1: Location of site and trenches

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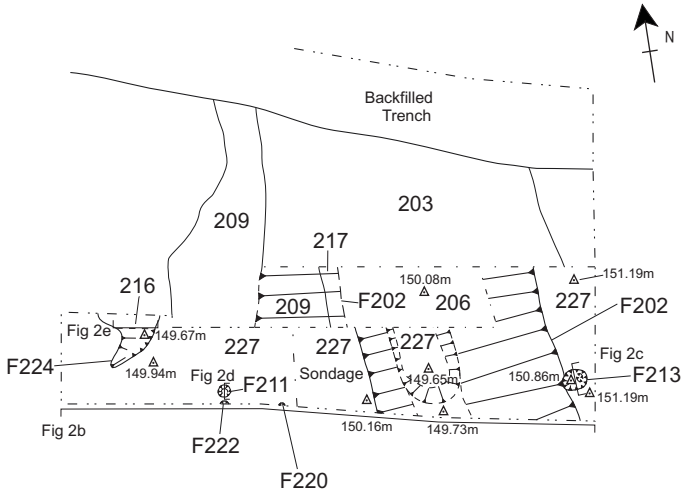
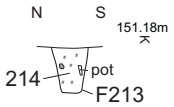
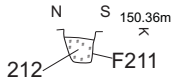
a) Trench 2, plan



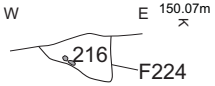
c) Section of F213



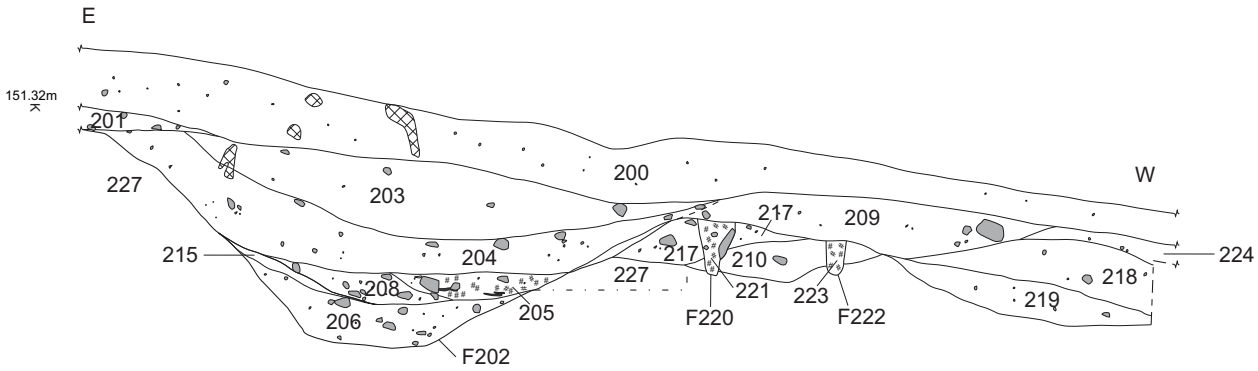
d) Section of F211



e) Section of F224



b) Section of F202, F220 and F222



0 Plan 5m

Scale 1:100@A4

0 Section 3m

Scale 1:50@A4

Key to all figures

- Charcoal
- Tree root
- Pottery
- Stones

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High Peak Camp, Otterton, East Devon

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Fig. 2: Trench 2, plan and sections

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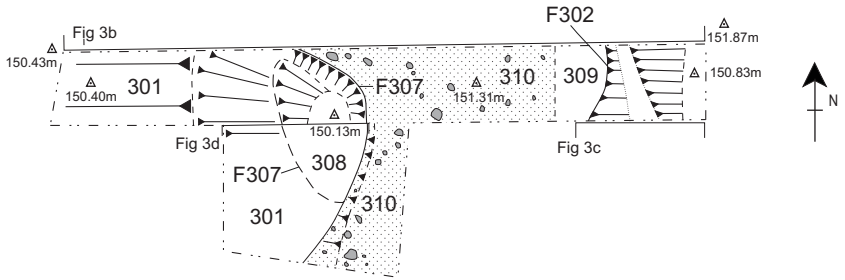
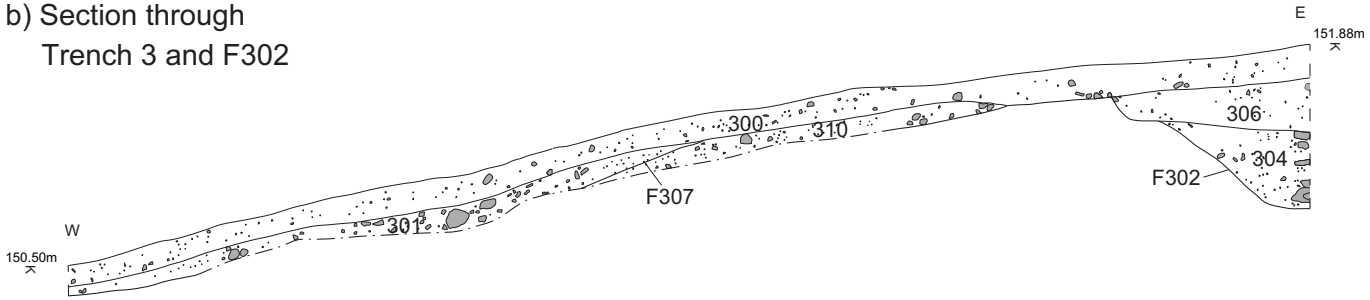
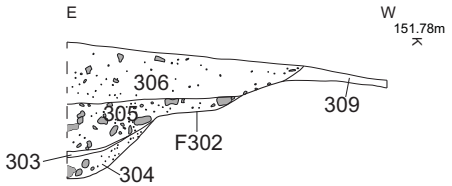
a) Trench 3, plan of sondage



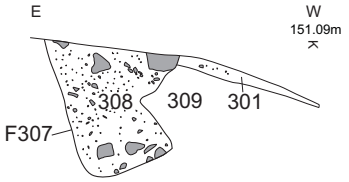
b) Section through Trench 3 and F302



c) Section of F302



d) Section of F307



0 Plan 5m

Scale 1:100@A4

0 Section 3m

Scale 1:50@A4

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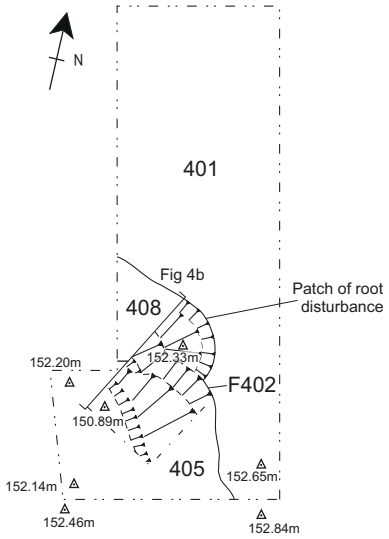
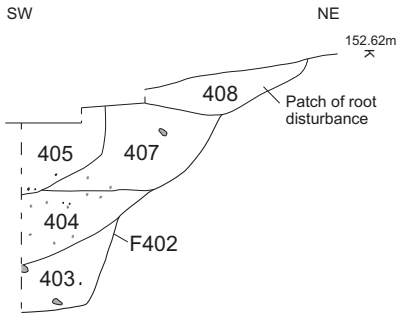
Fig. 3: Trench 3, plan and sections

AC archaeology

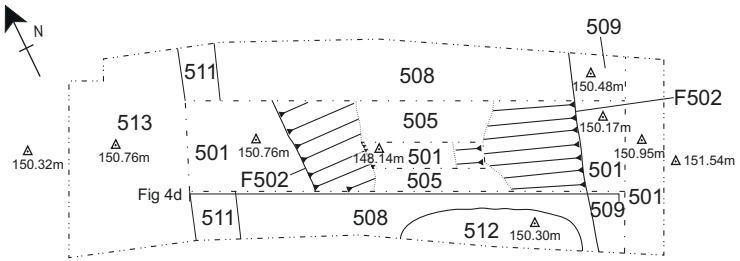
a) Trench 4, plan



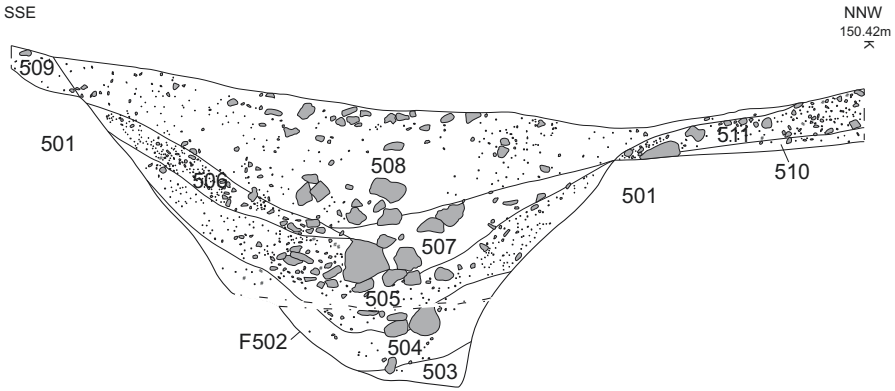
b) Section of F402



c) Trench 5, plan



d) Section of F502



0 Plan 5m

Scale 1:100@A4

0 Section 3m

Scale 1:50@A4

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Fig. 4: Trenches 4 and 5, plans and sections

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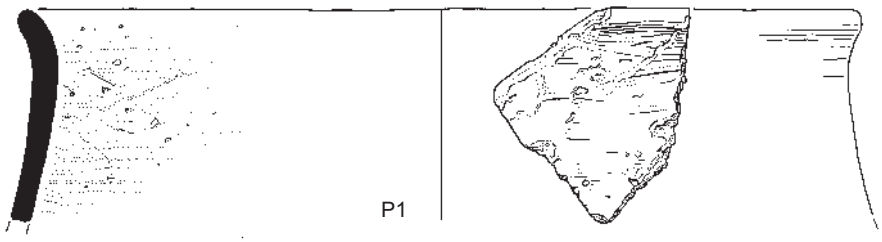

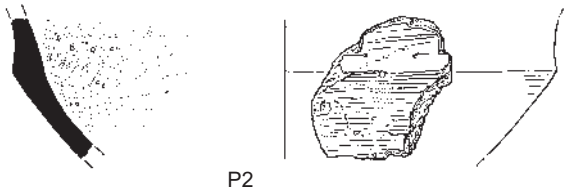

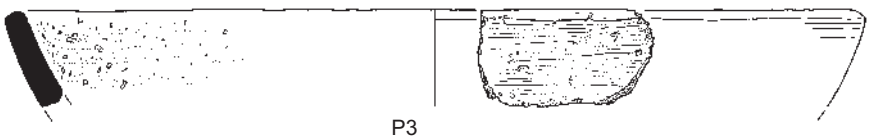

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Fig. 5: Illustrated Early Neolithic vessels (drawn by Jane Read)

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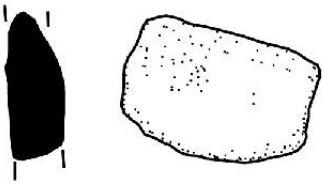
A



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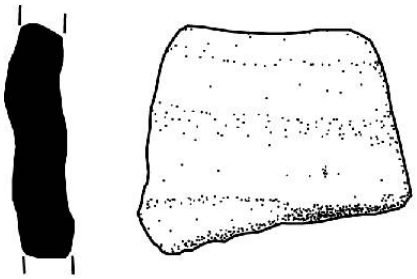

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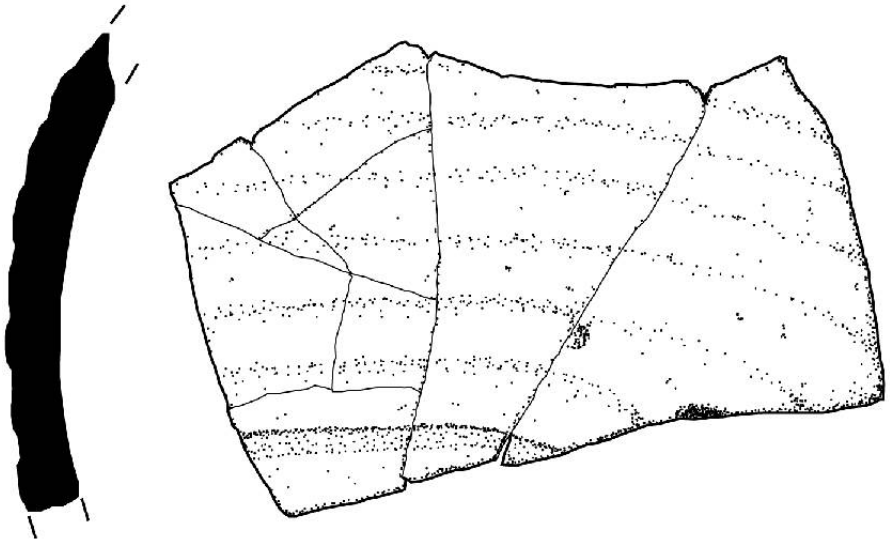

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Fig. 6: The Early Medieval pottery
(drawn by Maria Duggan)

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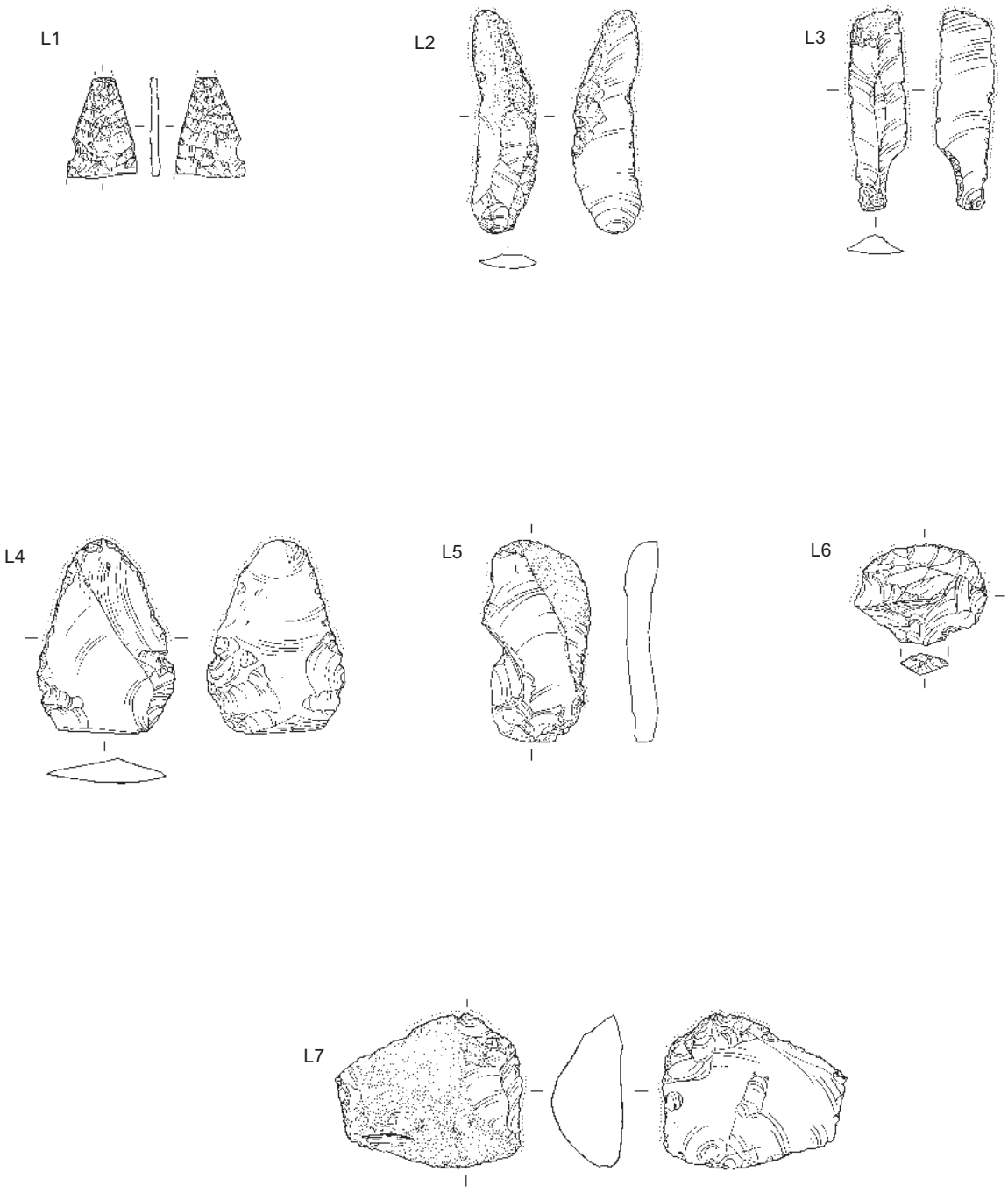

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Fig. 7: Flint implements. L1 arrowhead, L2-4 knives, L5-6 scrapers, L7 piercer. The dotted line outside edges indicates position of usewear (drawn by Jane Read)

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Plate 1: Trenches 2 and 3, looking SW

Plate 2: Trench 4, looking SW

Plate 3: Trench 5, on the Open Day, looking N

Plate 4: Trench 5, excavation in progress, looking N

Plate 5: Trench 1, looking SE (scale 2m)

Plate 6: Trench 2, excavation in progress, looking SW

Plate 7: Trench 2, half-sectioned posthole F211 (scale 0.2m)

Plate 8: Trench 2, posthole F213 (scale 0.3m)

Plate 9: Trench 2, north-facing section with postholes F220 and F222 (scale 0.3m)

Plate 10: Trench 3, with tree throw F307 in foreground, looking E (scale 2m)

Plate 11: Trench 3, north-facing section of ditch F302 (scale 1m)

Plate 12: Trench 4, SE-facing section of ditch F402 (scale 1m)

Plate 13: Trench 5, view looking N (scale 2m)

Plate 14: Trench 5, NE-facing section of ditch F502 (scale 2m)

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