

Devon Archaeological Society
HENRIETTA QUINNELL PREHISTORIC LITHIC STUDIES GROUP

DRAFT REPORT ON TAG MICROLITHS

By John Newberry

Editor's note. This is a composite of the individual reports John Newberry prepared, on the microliths from the Tiverton Archaeological Group finds along the route of the North Devon link road.

I'm sure John would have made changes to these reports had he been able.

Where John refers to farms and fields, I have added the site reference identifiers, which were only agreed after his death.

Trevor Dymond

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(This is a first draft which is designed to provide a possible format which covers both the TAG finds and Henrietta Quinnell's other objective of providing a lithic framework for future Devon studies. If it is considered that this format broadly meets these two objectives, it will obviously need editing when producing the final report. The North Devon Link road microlith finds are discussed separately in an Appendix).

Introduction

As originally defined by Clark (1933, 55), microliths are bladelets or blades which have had their bulb of percussion removed and have "typical steep" retouch. However in recent years a somewhat broader definition has come into use. This includes cases where the retouch is semi-abrupt rather than abrupt (Barton 1992, 218) and also rare cases where the proximal end with the bulb of percussion is still present (Finlay 2000, 24). The retouch both blunts the edge(s) worked and also sometimes alters the shape of the original blank (Wickham-Jones and McCartan 1990, 97).

Comment [Unknown A1]: Henrietta - we probably need to agree how we identify & locate the pieces with a standard farm, field, NGR, or something like it, & whether we group them by farm, field, etc, or by type. TD

Microliths are classified based on their outline and the location of the primary retouched margin(s). The classification scheme proposed by Clark (1933, 56-60) is still used today (eg. Grace 2011 (a), 69). Jacobi (1978) has produced a further classification scheme, while the informative glossary of Reynier (2005, 128-134) clarifies the criteria for the typological range of Early Mesolithic microlith forms.

Function

Despite the lack of evidence of hafted microliths in Britain (Finlay 2000, 28; Saville 2004, 187), for many years there was near general agreement that microliths were used as the points and barbs of arrows and spears for hunting purposes. This was based on occasional finds of arrow shafts and spears in Europe with microlith inserts. David Clarke was one of the few dissenting from this view. He considered that the hunting emphasis was an "entrenched and misleading" assumption, and suggested a number of alternative possibilities. These include plant gathering / harvesting / slicing / grating, plant fibre processing for ropes, nets, snares etc. and bow-drill points (Clarke 1978, 8-12).

More recently, use-wear analysis of microliths from a number of Scottish sites found that the majority of identified wear-traces relate to non-projectile use (Finlayson 2004, 224-5). Similar results came from the Mesolithic hut site at Howick, Northumberland, which produced 275 microliths (Waddington 2007, Table 7.1). Of these, 27 were part of the 50 retouched (plus 50 unretouched) pieces selected for use-wear analysis (Hardy & Shiel 2007, Table 9.2). The analysis suggests that some microliths were used to work wood and possibly bone/antler, while others were used for cutting or skinning in butchery or hide working (*ibid.* 130-134). Finlay (2000, 28-9) provides further examples of use-wear analysis showing non-projectile use, as does Grace at Three Ways Wharf, Uxbridge. At Uxbridge such analysis shows that most of the microliths were not used as projectile *barbs*, while of six used microliths considered suitable to be projectile *points*, two were projectile points, two were used for boring and two were used for cutting using their lateral margins (Grace 2011 (b), 172).

Finlayson (2004, 224) stresses that the use of microliths for projectiles may be under-represented on some sites due to the loss of projectiles in hunting episodes. Nevertheless it is clear that use-wear analysis has confirmed Clarke's view that microlith use for hunting has been over-emphasised. The microlith seems to be a "plug-in" replaceable component in composite tools with a wide range of uses, by no means limited to hunting. The lack of survival of the organic hafts of such tools is frustrating, but limited British evidence has fortunately survived of two adhesives used to hold the microliths in the hafts. These are either a mixture of beeswax and pine resin (David 1998, 200) or a tar distilled from birch bark (Roberts *et al.* 1998). In northern Europe birch bark tar was the mastic used at a number of Mesolithic sites in Denmark, Norway and Sweden (Aveling and Heron 2000, Table 5.1), as well as at two sites in Austria and Germany (Pawlak 2004).

Chronology

Dating the Terminal Palaeolithic and Mesolithic is complicated by periods with a "plateau" in calibration curves, which results in radiocarbon ages at the end of such a period being indistinguishable from those at the beginning (Ashmore 2004, 83 & Fig. 6.1). This report therefore gives microlith dates in the form of uncalibrated radiocarbon years before present ("BP"), with the "present" fixed at AD 1950.

Microliths first appear in Britain in the Terminal Palaeolithic (sometimes called the "Late Glacial") period, which spans the boundary between the Late Pleistocene and the Holocene. They are found in Long Blade industries, along with "bruised" blades, bruised flakes and occasional Ahrensburgian-type tanged points, as at Avington V1, Kennet Valley (Froom 2005, Table 3.2). The Avington microliths are mainly obliquely blunted points and backed bladelets. Microliths are also present elsewhere in Long Blade assemblages (Barton 1998, 160), as at Launde in Leicestershire, where the majority are obliquely truncated points (Cooper 2006, 72). Very few radiocarbon dates for this period are available, but based on two dates from Three Ways Wharf, Uxbridge, the period there is within 10,370 BP to 9,890 BP (Lewis with Rackham 2011, Table 1). There are no organic remains at Avington V1, but optically stimulated luminescence measurements gave an age for sediments enclosing the assemblage of c. 10,200 BP (Barton 1998, 159; Froom 2005, 95).

Microliths continue in use throughout the following Mesolithic period, but are not present in Neolithic assemblages. The Mesolithic is conventionally divided into Early (10,000 – 8,500 BP) and Later (8,500 – 5,500 BP) periods. However Barton and Roberts (2004, 340-1) stress that these boundaries are imprecise, with more complexities than this simple Early/Late division

imply. Some of these complexities are illustrated in an important study of the Early Mesolithic by Reynier (2005), who also shows that in certain areas some Early assemblage types continue until c. 8,000 BP (*ibid.* 5).

At around 7,000 BP tiny geometric microlith forms appear in England (Barton and Roberts 2004, 346). At Three Holes Cave in the Torbryan Valley in Devon, excavations produced a well-stratified Later Mesolithic assemblage dominated by micro-scalene triangles and narrow rods. Smashed red deer bones gave radiocarbon dates of 6,300 – 6,100 BP (Roberts 1996, 201-2).

There is uncertainty regarding the end of the Mesolithic, but the youngest dated English Mesolithic assemblage quoted by Barton and Roberts (2004, 346) is a well-stratified assemblage at Stratfords Yard, Buckinghamshire, which has a micro-tranchet component and a date of c. 5,900 BP.

The TAG classified microlith finds

There is one obliquely blunted point, classified as an A-type using Clark's (1933) classification scheme. This classification covers microliths which have abrupt or semi-abrupt retouch forming a point at one extremity. Normally these are just retouched on part of one lateral edge leading up to the point, but occasionally they have additional retouch (not necessarily abrupt or semi-abrupt) on the opposite lateral edge and/or at the base.

The TAG A-type find is from Pool Anthony farm [OS 1790. 09/239. Mth 1] (site 34). It is a well-made classic A-type made on a flint bladelet having a triangular cross-section. It has a transverse straight snap at the base which has removed the bulb of percussion. [*Having a straight snap makes it very relevant to the discussion in the microburin report on the relevance of so-called microburin "miss-hits" to Devon microlith manufacture*]. There is no evidence of a notch to facilitate this snap. It has neat abrupt direct retouch on approximately 75% of the left lateral edge leading up to the point, which is intact. This retouch meets the criteria of Reynier (2005, 131) in that the microlith has a distinct angle between the truncated part of the edge leading up to the point and the unretouched part near the base. In addition it has inverse retouch on the right lateral edge leading up to the point, making it a Clark sub-type A1.b – being obliquely “blunted” down part of the left edge and with “trimming” on the right edge (Clark 1933, 56).

There are two straight-backed microliths, classified as B-type by Clark. Using the Wickham-Jones and McCartan (1990, 101) terminology, these microliths are “backed bladelets”, while Reynier (2005, 128) describes them as “backed points”.

One of these straight-backed microliths is from Crazelowman farm [OS 1795. 374. Mth 2] (site 36). This is a flint bladelet with a triangular cross-section. It has a transverse straight snap which has removed the bulb of percussion. [*Another straight snap!!*]. There is no evidence of a notch to facilitate this snap. The left lateral edge has been abruptly retouched in the mesial section for just over half of the length, while at both ends of this edge there is an area of natural blunting provided by thin cortex. Cortex is not common on microliths, but is occasionally found. At Three Ways Wharf, Uxbridge, for example, of 79 microliths in Site C, only three had cortex (Grace 2011 (a), 69). Of the 390 microliths at the Powell site at Hengistbury Head, “with few exceptions, none had any cortex” (Barton 1992, 219 and Table 5.15).

The right lateral edge is relatively straight and has semi-abrupt retouch. Since this right edge is relatively sharp despite the retouch, it is possible that the retouch was designed to strengthen a naturally sharp but somewhat brittle edge. The retouched and cortex blunted left lateral

margin is slightly curved leading up to a somewhat blunt point. Based on the cortex on this left margin, the curve results from the shape of the bladelet rather than from a deliberate attempt to retouch the blank to create this shape.

It is stressed that a “straight-backed” microlith does not imply that the retouched lateral margin has to be straight for this classification to apply, since some of Clark’s examples (and others elsewhere) are like this Craelowman example in being slightly curved. The part cortex backing is a most interesting aspect of this find. While rare in the case of microliths, it is not uncommon on what Healy (1984, 13) describes as “straight-edge knives”. The backing for such knives is usually either retouch or cortex, but occasionally (as with a few Devon examples) is partly retouch and partly cortex.

The other TAG straight-backed microlith is from the Ten Acres field at Little Gornhay Farm [F 110. Mth 3] (site 33). This is a 32.6 mm long flint bladelet. It is of interest both because of its length (see “Chronology”) and because of the possibility that it was not made using the microburin snap technique. The base is abruptly retouched rather than having a straight or oblique snap. The bulb of percussion may therefore have been removed by truncation retouch rather than a snap, as was found at Launde (Cooper 2006, 72 & 83) and Rhum (Wickham-Jones and McCartan 1990, 99). Alternatively the abrupt retouch may have been to tidy up a jagged snap. It has continuous abrupt retouch on the right lateral edge. The left lateral edge has both retouch (which is semi-abrupt at the distal end) and evidence of wear and possibly damage. This semi-abrupt retouch appears to have been angled to produce a point. However this cannot be verified as the distal tip is missing.

A major classification problem is the considerable variation in microlith form, with all the main classes merging into each other (Finlayson 2004, 224). A microlith from Pool Anthony farm (OS 1790. 09/426. Mth 4) (site 34) is an interesting example of this. It is the mesial section of a bladelet of triangular cross-section. It is of uncertain material due to patination. It has a relatively straight snap across the base with no evidence suggesting a notch. The distal tip is missing. It has continuous abrupt and semi-abrupt retouch on the right lateral edge, with the last c. 9mm of the retouch leading up to the missing tip creating a distinct angle between that and the remainder of that edge. The left lateral edge is straight and has evidence of wear.

The classification of this Pool Anthony microlith is debatable. It is not a Clark A-type “obliquely blunted down part of one edge”, because it is retouched **all** the way down the right edge. Nor is it a Clark B-type “blunted straight down one edge”, because towards the missing tip the retouch was designed to create a distinct **angle** between that and the rest of the retouch on that edge. It is therefore a mixture of these two types, being obliquely blunted down part of one edge, but with straight retouch on the remainder of that edge.

There is one lunate microlith, made on a flint bladelet. This is from Ten Acres field at Little Gornhay (F 107. Mth 5) (site 33). A lunate is retouched to create a half moon or crescent shape. Based on Clark (1933, 57), the Little Gornhay example is an “arc blunted crescent type 1”, in which the retouch (abrupt in this case) forms the crescent but there is no retouch on the opposite straight edge. In this case the “straight” edge is in fact jagged, due presumably to wear/damage during use. One junction of the arc and the straight edge is missing. Since there is slight evidence of a hinge fracture at this junction, it is possible that this was a natural occurrence during detachment of the blank from the core, rather than a subsequent break. If so, the knapper nevertheless made use of this to create a functional microlith, possibly as a response to an *ad hoc situation*.

A microlith from Middle Wall Down at Little Gornhay [D 68. Mth 6] (site 40) illustrates one of the microlith classification problems. This is the continuity in form between lunates and triangular-shaped sub-types. There is not always a clear distinction between the two. Instead a variety of shapes are found, representing a gradual increase in angularity from crescents to triangles (Finlayson 2004, 224). The Little Gornhay example is made on a short chunky bladelet. It is a rare case of a microlith where the proximal end with the bulb of percussion is still present. It has abrupt retouch on the left lateral edge. The right lateral edge has both retouch and wear/damage and is angled to give two roughly equal margins on this edge. It is therefore classified as an isosceles triangle. However if there had been just a slight reduction in angularity between the two margins on the right lateral edge it would have been a lunate. The other interesting aspect of this microlith is that it is a maximum of 7.4 mm thick. It would therefore have needed a relatively wide slot in its organic haft to accommodate it. It is difficult to understand what function would require such a chunky insert in a composite tool. One possibility is that it was just an expedient tool-blank which was not what the knapper would have preferred, but it nevertheless provided the blank for a functional microlith in the absence of a more suitable piece.

TAG unclassified microliths

These comprise broken, burnt and complete microliths of uncertain sub-type.

Grace (2011 (a), 69) stresses the problems in trying to classify broken microliths. A Pool Anthony flint example [09/534. Mth 7] (site 34) illustrates just how difficult this can be. It has neat continuous abrupt retouch leading up to its tip on what is left of the left lateral edge. There is wear and/or damage on what is left of the right lateral edge. It has two breaks across the base. One break is straight across from the left lateral edge and the second is at an oblique angle from the first break to the opposite edge. There are therefore a range of classification possibilities. It could, for example, be a broken Clark B1 blunted straight down one edge. However since the base is missing it could equally be a broken Clark C type blunted down one side and across the base. Other possibilities are that it could be a broken triangular microlith (D) or a hollow base point (F).

Other broken unclassified microliths comprise:

- (a) a microlith from Pool Anthony farm [09/326. Mth 8] (site 34). This is the mesial section of a Greensand chert bladelet, which has a straight snap at both ends. This has microdenticulation retouch plus wear on one edge. The opposite edge has abrupt retouch on approximately half of the length, which may or may not have led up to a point. Lacking both the proximal and distal ends, it is not possible to classify this further. (*The alternative to a broken microlith classification is that it is a broken microdenticulate. However in view of its small size it seems likely that it was hafted as part of a composite tool, and since made on a bladelet and with some abrupt retouch it meets the criteria for a microlith*).
- (b) a dark chocolate chert microlith from Pool Anthony farm [09/430. Mth 9] (site 34). As it is retouched and has a maximum width of 11.2 mm, it is technically a blade (Barton 1992, 264). The distal end is missing. It looks to be a "rare example" (Barton 1992, 269) of a microlith made on the proximal end of the tool-blank. It has retouch plus wear and/or damage on what remains of both lateral edges. However, lacking the distal end the classification is uncertain.

[There is much more on this artefact in a letter to HQ 30th June, 2011 on some PA finds. However space limitations may limit any further discussion in the HQ et al. report].

- (c) a microlith from Middle Wall Down, Little Gornhay (site 40) [D227. Mth 10]. This has neat semi-abrupt retouch on what remains of one lateral edge, with more limited retouch on what remains of the opposite edge. As it lacks both the proximal and distal ends it cannot be classified further.

As regards burnt microliths, the problem in classifying these is illustrated by one from Middle and Lower Buckley at Chevithorne Farm (CB 84. Mth 11) (site 62). Despite the burning it has clear evidence of abrupt retouch on one straight lateral edge. However the heat has so damaged the surface of the opposite edge that it is impossible to ascertain whether this is a scalene or isosceles triangle or alternatively a lunate.

Even unburnt complete and near complete microliths may not provide enough evidence to assign them to a sub-type. A flint bladelet from Pool Anthony Farm [9/1A. Mth 12] (site 34) is an example of this. It is an almost complete bladelet of somewhat irregular shape. It has clear abrupt and semi-abrupt retouch on one relatively straight lateral edge. It also has some light retouch plus wear and/or damage on the opposite somewhat angled edge. From the evidence it is not clear what the objective of the knapper was. It may represent the expedient use of an irregularly shaped blank, possibly an *ad hoc* response to an immediate situation. Alternatively it might indicate a failed attempt to make a microlith from this blank. A third possibility is that the blank was deemed to be of no functional value and so was passed to a trainee to practise retouch on.

Two other complete flint microliths cannot be further classified. One is from Ten Acres, Little Gornhay [F 449. Mth 13] (site 33) and the other is from Pool Anthony, West Manley [*no number on artefact – from a little green bag. Mth 14*] (site 10). Both are tiny and have both abrupt and semi-abrupt retouch. Neither of them appears to be from a micro-geometric industry. Based on the size, the shape of the blank and the position of the retouch, it is not possible to classify them further.

TAG debatable microliths

One is a tiny complete or near complete flint bladelet from Craelowman farm [F 147. Deb. Mth 15] (site 36). It has a small abruptly retouched notch on one edge and further retouch plus wear and/or damage on the opposite edge. A small flake off the distal end makes it impossible to ascertain the form of the distal end. This is obviously a tool of some sort, but a microlith classification is uncertain. *[This was originally provisionally classified as a microburin because of the notch – but if it had broken across or near the notch there would not have been enough of the tool-blank left to make into a microlith].*

A second debatable microlith is a flint bladelet from Wall Down (Section B) at Little Gornhay [Deb. Mth 16] (site 58). This has such a mixture of retouch (abrupt, semi-abrupt, light edge, even possible microdenticle) that it is not possible with any confidence to assign this to either a microlith sub-type or another tool or tool component.

NB. A Knighthayes Home Farm find.

A find of uncertain classification is a flint artefact from Hayne Lawn, Knighthayes Home Farm [Q9] (site 53). This is a small cortical flint flake which has possibly been struck off a radial core. It still has its proximal end with a relatively prominent bulb of percussion. There is cortex on

part of one lateral edge. The opposite edge has abrupt retouch leading up to a broken off distal end. This may be a broken piercer, but since the distal end is missing this cannot be confirmed. This find is discussed here because it was originally put with the microliths for further study. A classification as a broken unclassified retouched tool is suggested.

Chronology

The most chronologically interesting is the 32.6mm long B-type straight-backed microlith from Ten Acres, Little Gornhay (site 33) [Mth 3]. Both its size and truncated base suggest it is possibly from a Terminal Palaeolithic (aka “Late Glacial”) Long Blade industry. If so, it dates to the Pleistocene/Holocene boundary in the few centuries either side of 10,000 BP. Its size would, for example, fit comfortably within the size range for the Late Glacial microliths (comprising Clark A and B types) at the rich (14,560 lithic finds) Long Blade site at Avington V1 in the Kennet Valley (Froom 2005, 14, Table 3.2 and Fig. 3.1). It is also chronologically relevant that this Ten Acres microlith has a retouched basal truncation in a similar manner to one of the Avington V1 B-type microliths (*ibid.*, 14). The relevance is that Late Glacial microliths rarely reveal evidence of having been made using the microburin technique (Barton 1998, 160). At Launde, for example, none of the Late Glacial microliths appear to have been made using this technique (Cooper 2006, 72). Truncation rather than snap may have been preferred then, although more evidence is needed before this can be confirmed.

A Late Glacial age is therefore a distinct possibility. [*Query make reference here to the two “bruised” blades from a Long Blade industry found at Broad Down - i.e. there is now evidence elsewhere of humans in Devon in the Late Glacial*]. However B-type straight backed microliths are also found in relatively small numbers in some (but not all) Early Mesolithic assemblages (Reynier 2005, Tables 2.1, 2.3, and 2.5). Occasionally these are of a similar size to the Ten Acres find which is, for example, only marginally longer than an illustrated B-type at the Powell Early Mesolithic site at Hengistbury Head, which also has a truncated base (Barton 1992, Table 5.15. 33). It is in fact marginally shorter than the two illustrated B-type “backed points” in a “Deepcar” type Early Mesolithic assemblage at Oakhanger V11, Hampshire (Reynier 2005, Fig. 4.6).

There are unfortunately no radiocarbon dates for Hengistbury Head. As regards such dates elsewhere, there is no evidence of B-type microliths in the earliest (“Star Carr” type) Early Mesolithic assemblages which commence c. 9,600 to 9,500 BP (Reynier 2005, 68 and Table 2.1). However they are found in “Deepcar” type Early Mesolithic assemblages which date from c. 9,300 BP (*ibid.* 68). In view of the size of this Ten Acres find, a Later Mesolithic date is not considered likely. [*Straight backed microliths smaller than the Ten Acre example are found in the early part of the Later Mesolithic, as at Howick – Waddington 2007, 84*].

There is a debate on whether there is a gap in the human occupation of Britain between Late Glacial reindeer and horse hunters and the arrival of Mesolithic hunter-gatherers. Cooper (2006, 88-90) sums up the then current views on “gap versus continuity”. Based on the present very limited radiocarbon dates there does appear to be such a gap, since “Star Carr” type assemblages are not found until c. 9,600 to 9,500 BP. More radiocarbon dates from secure contexts are needed to further clarify this question. However since B-type backed bladelets do not appear in “Star Carr” type assemblages, there certainly seems to be a gap as regards this particular type of microlith. There are therefore two chronological possibilities. The first is a relatively restricted period in the Late Glacial at around 10,000 BP. The second is from c. 9,300 BP to the end of the Early Mesolithic at around 8,500 to 8,000 BP (Reynier 2005, 5).

As regards the other straight-backed B-type microlith [Mth. 2], this Craelowman farm find is highly unlikely to be of Late Glacial age since it is only 21 mm long. One possibility is that it dates to that part of the Early Mesolithic that starts with the arrival of “Deepcar” type assemblages. However straight-backed microliths are also found in the early part of the Later Mesolithic, as at Howick (Waddington 2007, 84). A date range from c. 9,300 BP to the arrival of micro-industries at around 7,000 BP would seem appropriate. [*An April 2011 report for HQ on this Craelowman microlith gives more information*].

While A-type obliquely blunted points are present in Late Glacial assemblages, based on its size the Pool Anthony example (Mth 1) is almost certainly not of this period, but is rather of Mesolithic date. Unfortunately it is not possible to ascertain whether Early or Later Mesolithic, since this type of microlith is found in both periods. Obliquely blunted points are found in varying percentages in Early Mesolithic assemblages, eg. from 97% of the classified microliths at Hengistbury Head (Barton 1992, Table 5.15) to 30% of the undamaged microliths at Kettlebury, Surrey (Reynier 2005, Table 2,5). However they are also found in limited numbers in the earlier part of the Later Mesolithic, as at Howick. Northumberland (Waddington 2007, 85). Based on radiocarbon dates for Early Mesolithic assemblages with A-type microliths, a date range starting at around 9,600 to 9,500 BP with the arrival of “Star Carr” type assemblages at the beginning of the Early Mesolithic and ending c. 7,000 BP (when a micro-industry appears in the later part of the Later Mesolithic) would seem likely for this Pool Anthony A-type obliquely blunted point.

Lunate (crescent-shaped) microliths such as the example from Ten Acres, Little Gornhay (Mth. 5) are a sub-type of geometric microliths. While some types of geometric microliths are found in Early Mesolithic assemblages (*see below*) this is not yet the case with lunates. These only appear in the transitional period from the Early to the Later Mesolithic. They then continue on throughout the Later Mesolithic, with tiny examples called micro-lunates appearing around 7,000 BP (Barton and Roberts 2004, 346). This Little Gornhay microlith is relatively thick for a lunate (max. 3.3mm). [*The 21 lunates at Howick, for example, have a mean thickness of 1.7mm – Waddington 2007, 84*]. In view of this it is unlikely to be from a micro-industry. Therefore a date range of 8,500/8,000 BP to c. 7,000BP would seem likely.

The isosceles triangle from Middle Wall Down at Little Gornhay (Mth. 6) is another example of a type of geometric microliths. Before the publication of the Early Mesolithic study by Michael Reynier in 2,005, some lithic commentators stated that geometric microliths are only found in Later Mesolithic assemblages. Reynier’s work shows that, while non-geometric (particularly obliquely blunted points) are the dominant microliths in the Early Mesolithic, geometric varieties are also present in smaller numbers. Of the nine Early Mesolithic sites studied by Reynier, “triangles” are present in eight of them [*he does not analyse into scalene and isosceles*], while rhomboids and trapezoids are both present in six (Reynier 2005. Tables 2.1, 2.3 and 2.5). The totals of the microliths from these nine sites include 291 obliquely blunted, 58 triangles, 28 trapezoids and 27 rhomboids.

Somewhat smaller geometric microliths dominate Later Mesolithic assemblages, appearing in the period between 8,500 and 8,000 BP. Then very tiny geometric forms start at around 7,000 BP, often in association with “rods”, which are narrow straight pieces with retouch along both edges (Barton and Roberts 2004, 346). At Three Holes Cave in the Torbryan Valley, Devon, excavations found a well-stratified microlith assemblage dominated by small scalene triangles and rods, together with cut-marked red deer bones which produced radiocarbon dates of c. 6,200 BP (Roberts 1996, 202).

In view of its thickness, the Little Gornhay isosceles triangle is more likely Early than Later Mesolithic. However there remains the possibility that it was made on an expedient tool-blank and represents an *ad hoc* response to an immediate situation. If so, it could equally be from the earlier part of the Later Mesolithic, even though its size is not typical of this period. [*It is highly unlikely that it relates to a micro-industry period in the second part of the Later Mesolithic, because the thickness would almost certainly preclude its insertion into grooves cut into a haft of the size to take the very tiny geometric forms of this period.*]

The Pool Anthony backed bladelet of uncertain classification {Mth 4} is equally of uncertain chronology. However based on its relatively narrow width (6.3mm) it possibly dates to the early part of the Later Mesolithic. This date would fit in with a few of the 1,155 microliths found on the Scottish island of Rhum (Wickham-Jones and McCartan 1990, 97, 99 and Ill. 63). The Rhum examples are described as “scalene triangles”, despite having a similar shape and retouch to Mth 4 – i.e. proximal and distal ends removed and one unretouched lateral edge, with the opposite edge retouched to give a distinctly angular shape, producing five margins as opposed to the three of a scalene triangle. The Rhum dates (on charred hazelnut shells) commence with a mean determination for the earliest contexts of 8,555 BP, while later dates from other contexts show a Mesolithic presence over a period of around one thousand years (Cook and Scott 1990, 135; Wickham-Jones 1990, 163).

Conclusion

A joint conclusion covering microliths, microburins and cores will be produced shortly. This will obviously mention individual artefacts of particular interest, such as the chronologically important microlith from Ten Acres, microliths and microburins with a straight snap and an exhausted Portland chert core from Crazelowman farm, as well as several cores which suggest trainee knapper work.

Overall the evidence from these three artefact types includes primary evidence of on-site knapping of flint, Greensand chert and Portland chert, in particular in the Mesolithic period. Based on the number of cores with bladelet detachments compared to the smaller number of microliths and microburins, there is the possibility that bladelets were being produced on some of the TAG sites and then taken away to be turned into microliths elsewhere. Alternatively, since not all microlith blanks in Britain were made using the microburin technique, the bladelets may have been retouched to produce microliths on TAG sites and the microliths then taken away.

As regards microlith chronology, the TAG examples suggest activity in the Early Mesolithic and the early part of the Later Mesolithic, as well as the Late Glacial possibility. There are no microlith finds from the micro-industry found in the later part of the Later Mesolithic, which starts c. 7,000 BP. [7,000 BP is c. 6,200 to 5,800 cal. BC per Ashmore 2004, 114].

Bibliography

This will be produced shortly. It will cover microliths, microburins and cores, ready for inclusion (after editing) in the TAG report bibliography.

Appendix. North Devon Link Road microliths.

(in 114/2007 Tiverton Round Barrow etc. box)

B1. A tiny classic flint lunate microlith, with abrupt retouch forming the crescent edge and semi-abrupt retouch on the opposite straight edge. Based on Clark (1933, 57) this is an "arc blunted crescent type 2" in which, besides crescent-shaped abrupt retouch on one edge, there is what Clark describes as "trimming" on the opposite edge.

Comment [Unknown A2]: Grid B1, NDLR (82), identified as OS 1795, Craze Lowman. TD

This lunate would fit comfortably into the size and retouch criteria of the lunate microliths found at Howick in the early part of the Later Mesolithic (Waddington 2007, 84).

F4. (Packet states "F4. Pit"). A classic Greensand chert Clark A-type obliquely blunted down part of one edge (the left lateral edge, as is usual with obliquely blunted). This retouch is abrupt. An interesting feature of this microlith is that the proximal end has not been removed. This is presumably because as there is no discernible bulb of percussion there was no practical reason to remove this end. The right lateral edge has semi-abrupt retouch towards the proximal end. As regards this additional semi-abrupt retouch on the right lateral edge, Barton (1992, 218) considers that the additional retouch on Clark A-type is of ancillary importance to the main oblique truncation, and probably was done to remove any irregularities on that edge.

Comment [Unknown A3]: Feature 4, a pit. NDLR (82) at SS 9843 1371; OS 1790, Pool Anthony. TD

Blatchworthy (J. Ayres). SS 884 172 (site 77). Strip 3 (from a packet containing this microlith and a barbed-and-tanged arrowhead no. 45). [The artefact number is indistinct, but have assumed this is the first microlith listed in Trevor's schedule of microliths and microburins dated 30.4.2012].

Comment [Unknown A4]: OS 882, Blatchworthy, Stoodleigh, TIVERTON. Identified as 55, but 2 other pieces from strip 3 also use this number. TD

This is a classic Clark A-type blunted obliquely down part of one edge (the left – as above). This retouch is abrupt. There is also some semi-abrupt retouch at the proximal end of the opposite edge. The tip is missing. There is a relatively straight snap at the proximal end, which is yet another example of the growing number of Devon examples showing that by no means all microliths had an oblique snap to remove the bulb of percussion.