

Online supplementary material

Technical description of Old Quay microliths

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The following description of the microliths from Old Quay is necessarily a technical one in order to demonstrate that the comparisons between them and continental European assemblages are considerably more than impressionistic. Given the similarities they share with the latter and for the sake of clarity, we use continental European technological terminology in describing them. The 48 identifiable microliths can generically be termed *trapèze asymétric* (asymmetric trapezoids or rhomboids in English terminology), but subtle variations in the angle of the small truncation (*petite troncature*) allow 43 artefacts to be classed as *trapèzes à bases décalées* (trapezoids with an offset base), and 5 artefacts, which exhibit low angle truncations accounting for less than one-sixth of the artefact's length, are classed as *trapèze rectangle court* (trapezoids with a 'short rectangle') (see Barrière *et al.* 1969 for definitions). The four previously illustrated microliths from Old Quay (Ratcliffe & Thorpe 1991: 24; Dennis *et al.* 2013: 16) are all classifiable as *trapèzes à bases décalées*. No Montbani blades or bladelets (an artefact type often associated with Late Mesolithic trapezes north of the Seine) were recovered, although in this light the flake-dominated character of the Old Quay assemblage should be noted.

Sixteen of the *trapèze à bases décalées* and three of the *trapèze rectangle court* exhibit additional retouch on the shortest side (*petite base*). On 12 microliths this additional retouch is on the dorsal surface and it creates either a straight *petite base* (retouch variation 'A': numbers 13–16, 30, 47 & 48) or a convex *petite base* that forms a regular curve from the *grande* to *petite troncature* (retouch variation 'B': 21–23, 51 & 52). The remaining eight microliths exhibit additional retouch on the ventral surface of the *petite base* (retouch variation 'C': 17–20, 24, 49 & 50). In all cases, the retouch on the ventral surface is very

slight and cannot be classed as *retouch inverse plate*. Variations in other characteristics may also be of typological significance; for example, on 26 of the microliths the retouch on the longest truncation (*grande troncation*) is straight, while on 22 examples it is convex. Similarly, the retouch on the small truncation (*petite troncation*) is straight on 45 microliths, but concave on 3 examples. The significance of these variations is, however, currently unclear. The microliths at Old Quay are also predominately lateralised to the right (43 examples: 89.6%) rather than the left (5 examples: 10.4%).

The microliths provide some insight into the methods of their manufacture at Old Quay. One of the most striking idiosyncrasies of this assemblage is the use of flake blanks for the majority of the microliths. Only one microlith was definitively manufactured on a blade, although three further examples were probably manufactured from blades; the other 44 microliths were manufactured on small regular flakes. Notably, the Old Quay assemblage also provides very limited evidence for the use of the micro-burin technique for microlith production. Again, this probably reflects the use of flake blanks that are not easily segmented using the micro-burin technique.

Only five microliths exhibit *piquant trièdre* (a trace of the micro-burin negative) and just four micro-burins were recovered despite extensive sieving. Close examination indicates that the majority of microliths were formed by the application of direct retouch and three were manufactured on broken or deliberately snapped flakes. The use of flake blanks is also considered to have resulted in the manufacture of nine microliths transversely (13, 15, 21, 30, 34, 42, 45, 50 & 52) with a distal edge instead of a side forming the *grande base*. The overall morphology of the transverse microliths is, however, identical to those manufactured longitudinally and as such, these transverse forms are considered within the *trapèze à bases décalées* and *trapèze rectangle court* classifications.

Technical comparison of Old Quay microliths with continental European material

In the Somme Basin, Belgium and the southern Netherlands, many sites have yielded microlith forms that can be placed in parallel with those at Old Quay (Figure 6; Ducrocq 2001: 46–51, 59–63, 88–94, 151–155; Robinson *et al.* 2011, 2013). Indeed, the additional retouch on the ventral surface of the *petite base* of the *trapèzes à bases décalées* and *trapèze rectangle court* at Old Quay (retouch variants A and B) make these forms comparable to *Flèche de Dreuil* (Ducrocq 1998). Morphological differences in the angle of the *petite bases* and the presence of straight truncations on the *grande troncatures* on the Old Quay microliths are, however, discernible.

Two other potentially significant differences between the Old Quay assemblage and those known from continental Europe should also be noted. First, the presence of flat invasive retouch on the ventral surface (*inverse retouch plate*) of trapezoidal microlith forms has recently been identified as a significant feature of Late–Final Mesolithic assemblages (Rozoy 1991; Robinson *et al.* 2011). The retouch on the ventral surface of seven *trapèze à base décalées* from Old Quay (retouch variation C) cannot be classed as *inverse retouch plate* as it is comparatively slight, rather than invasive, but the presence of this retouch may still be of chronological significance. It may also be of significance that the inverse retouch on the microliths at Old Quay is present on the *petite base* rather than the *petite troncature*, as is more common in the continental assemblages. The presence of additional dorsal retouch on the shortest side (*petite base*) is another difference: continental *Flèche de Dreuil* do not display a *petite base*, as it has been removed by retouching the *grande troncature* so that it intersects with the *petite troncature*. It could be argued that the examples from Old Quay should perhaps be seen as transverse arrowheads rather than real *trapèzes*, because the length-width ratio is <1 . The lateralisation of the microliths is also potentially of great significance when considering source areas. At Old Quay the microliths are predominantly (90%) lateralized to the left (i.e. the *grand base* is on the right hand side when viewed from the ventral face with the *petite troncature* towards the bottom), while the microliths from the Somme Valley are almost exclusively lateralised to the right. Yet in the Rhine-Meuse-Scheldt region, a recent study revealed that a small but significant proportion (12%) of microlith *armatures* are lateralised to the left in the same fashion as those from Old Quay. The presence of left lateralisation in these assemblages may potentially indicate that the influence for the Old Quay microliths comes not from the Somme Basin, but the Rhine-Meuse-Scheldt region, some 700km east of the Isles of Scilly (Robinson 2008; Robinson *et al.* 2013).

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