Test Pitting at Oily Hall, Lode April 2015 - Interim Notes

Fieldwork summary
In April 2015 a total of sixteen 1m x 1m test pits were excavated at Oily Hall on the location of the flint scatter previously identified and sampled through fieldwalking by CAFG. The test pits were set out along an 80m transect with nine test pits set along this line at 10m intervals. Seven additional test pits were excavated in alternate metre squares where the greatest density of worked flint appeared to be concentrated (figures 1 and 2). Test pits were excavated by trowel and all deposits were sieved.

The majority (10) of the test pits revealed a simple sequence of deposits with ploughsoil directly overlying natural sands and gravels which had clearly been plough truncated (figure 3a). A single, probably post medieval, peat filled feature was located in one test pit (TP7, figure 3b). Although not fully exposed this seems likely to be a 'claying pit', a typical feature found on drained agricultural land in the southern Fenland which were dug to extract mineral subsoil to spread onto and mix into the very light peaty ploughsoils of the area during the nineteenth and earlier twentieth centuries.

Five test pits revealed traces of surviving buried soils below the ploughsoil. Only in one case (TP 2), in the lowest lying test pit at the north western end of the transect, was this buried soil intact and untruncated and here it was sealed by a very thin layer of peat and was a maximum of 0.15m thick (figure 3c). In the four other cases the layer of buried soil was either very thin or clearly truncated or was discontinuous, filling irregular hollows or undulations in the surface of the underlying sand/gravel. In some cases these hollows could be argued to represent ephemeral features (e.g. figure 3d).

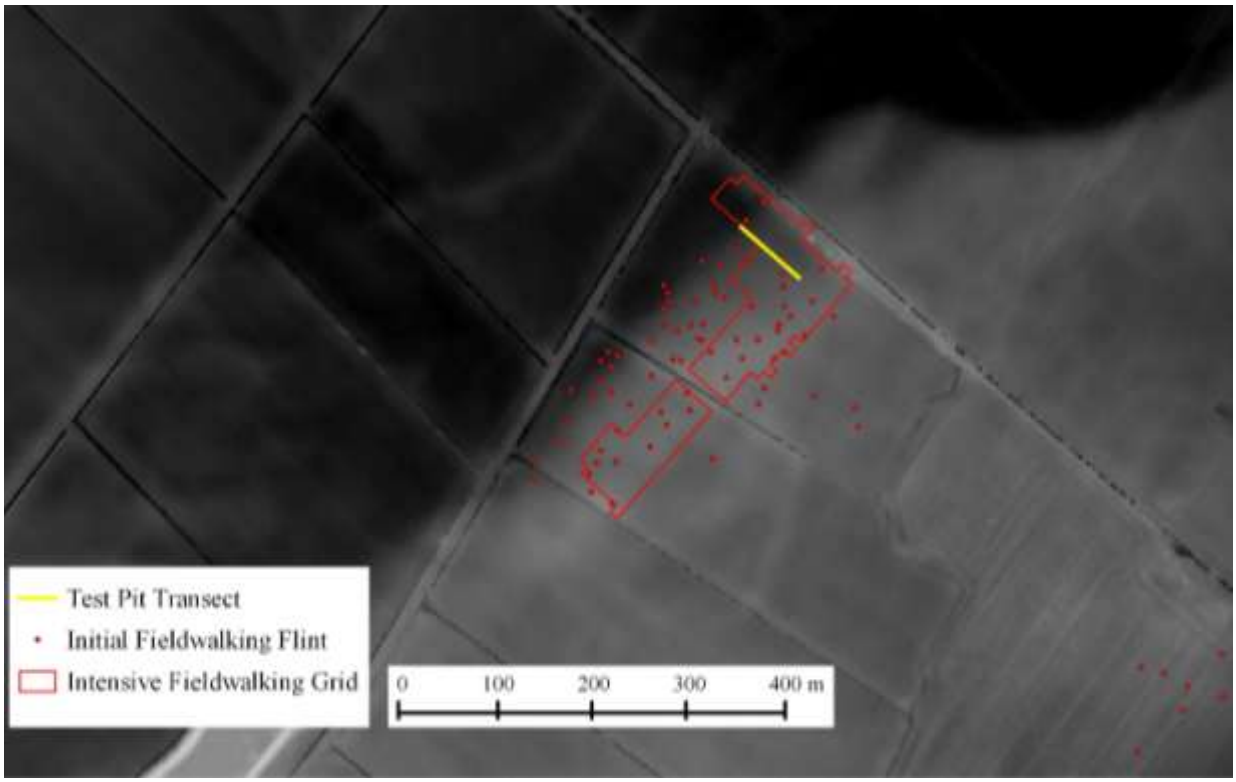

Figure 1. Location of fieldwork at Oily Hall, showing fieldwalking phases and location of test pit transect. Overlain on digital elevation model derived from LIDAR data (*LIDAR data provided by Geomatics Group on behalf of the Environment Agency, 2015.)*

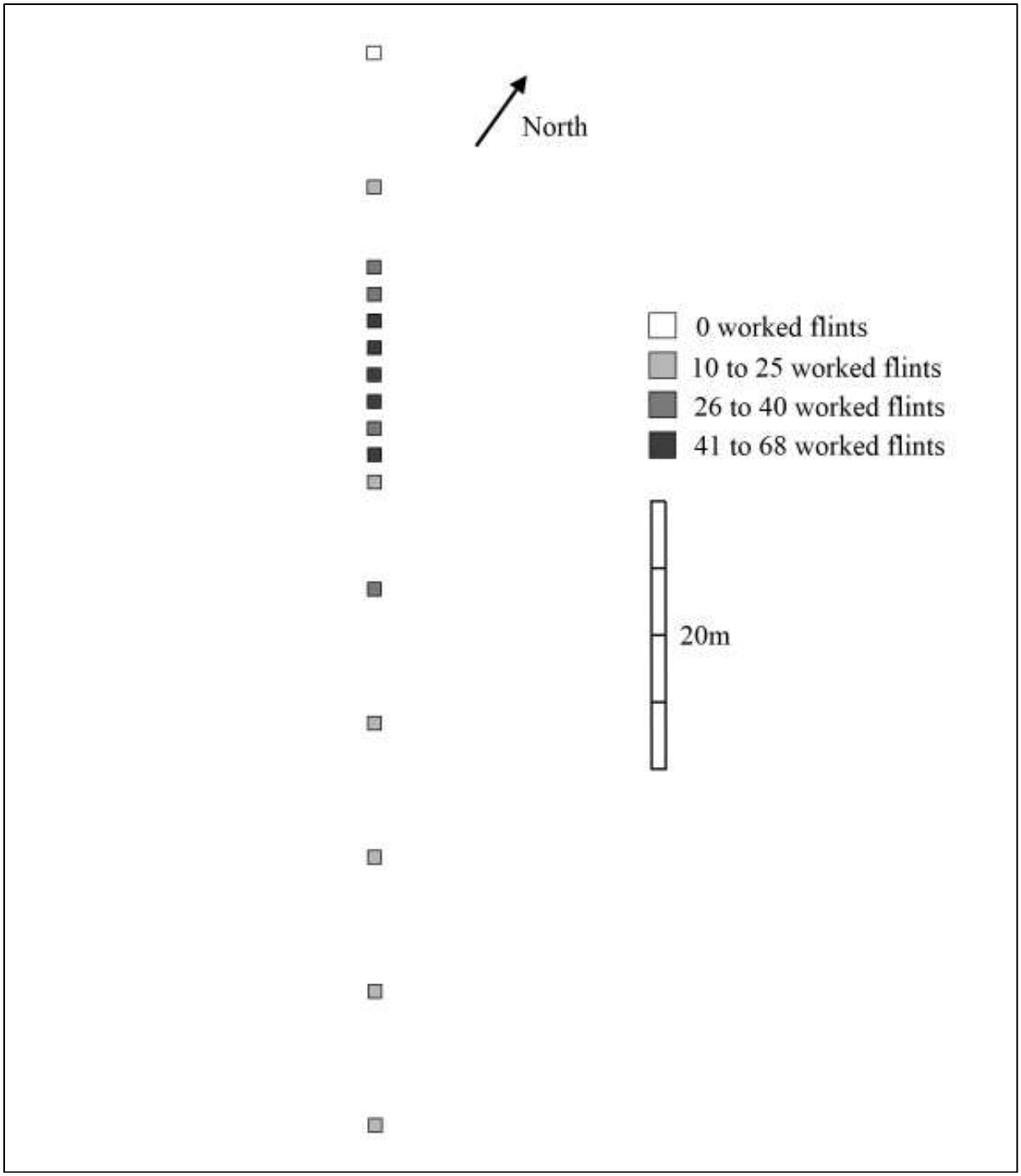

Figure 2. Plan of excavated Test Pits showing density of worked flint.

Figure 3. Selected test pits, see text for details.

The Finds

Aside from several pieces of glazed 19th century pottery and a single clay pipe stem the entire finds assemblage was made up of flint. A total of 573 worked flints were recovered together with 259.1g of unworked burnt flint (130 pieces). All of the test pits produced worked flint, with the exception of test pit 2, where ploughing had not been deep enough to disturb the underlying buried soil (see above, figure 3, c). Individual test pits produced between 10 and 68 flints with an average (excluding TP 2) of 32.9.

The basic quantification of the worked flint assemblage is given below in table 1 which separates the assemblage according to broad context (ploughsoil or buried soils). The assemblage is also grouped here into corticated (patinated), uncorticated (unpatinated) and burnt. Analysis of the assemblage from the fieldwalking at Oily Hall showed that this cortication is chronologically significant with diagnostically Mesolithic material all bearing some cortication and later (Neolithic and Bronze Age) material having no cortication and the same pattern was found in the assemblage from the fieldwalking.

The test pits were specifically located to sample what appeared to be (on the basis of the fieldwalking) that part of the scatter with the greatest density of Mesolithic (corticated) flintwork. It is not surprising, therefore, that overall the proportion of corticated flintwork is higher in the test pit assemblage (76%) than in the fieldwalking assemblage (67%). More striking is the dominance of corticated flintwork within the surviving buried soil deposits, where they account for 91% of the total. The reasons for this are not fully understood and require more detailed examination but might reflect Mesolithic material generally occurring lower in the soil profile than later flints, which may have been more vulnerable to the truncation that has affected most of the buried soil deposits.

Type	Buried soils (5 TPs)			Plough soil (15 TPs)			**Total**
	uncort'	cort'	burnt	uncort'	cort'	burnt	
chip	1	4		5	32	15	**57**
irregular waste		1		8	5	3	**17**
flake	2	44	2	50	160	25	**283**
narrow flake		2		5	15	2	**24**
blade		5	1		41	7	**54**
bladelet		8		1	61	3	**73**
blade like flake		5	1		27	3	**36**
rejuvenation flake					2		**2**
microburin		1			2		**3**
scraper				2	2		**4**
microlithic					10	1	**11**
retouched bladelet					1		**1**
flake core				1			**1**
bladelet core		3			4		**7**
Grand Total	3	73	4	72	362	59	**573**

Table 1. Basic quantification of the worked flint assemblage.

In some respects the test pitting assemblage is closely comparable to the fieldwalking assemblage, with a dominance of Mesolithic flintwork together with probable Neolithic and Early Bronze Age pieces. However, the composition of the two assemblages is very different with a much greater representation of smaller pieces in the excavated test pitting assemblage.

This is illustrated in figure 4, which shows that whilst pieces under 20mm in maximum dimension account for only just over 10% of the fieldwalking assemblages, they make up nearly half of the total assemblage from the test pitting. This difference, clearly caused by the different recovery rates afforded by two very different methodologies, has major implications for other aspects of the composition of the assemblages. Thus whilst the fieldwalking assemblage included a retouched tool component of 6%, this falls to under 3% for the test pit assemblage.

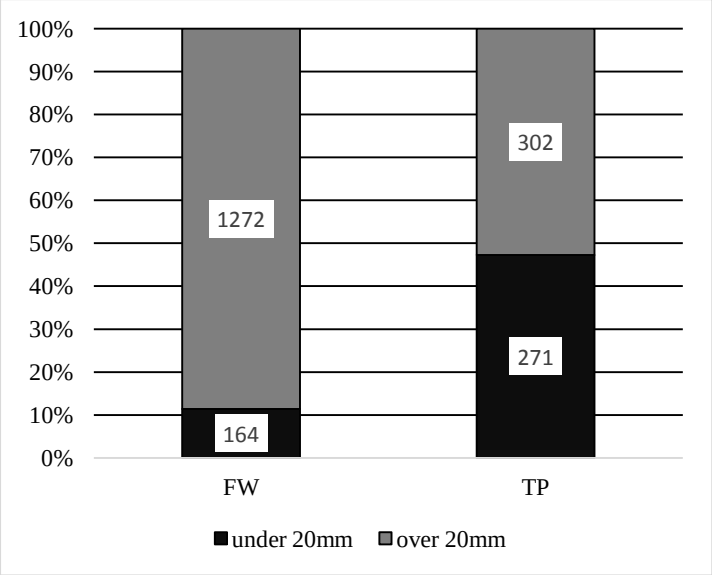

Figure 4. Proportions of worked flints under and over 20mm from the fieldwalking (FW) and test pitting (TP).

The relatively poor representation of smaller pieces in the fieldwalking assemblage appear to have had a very significant distorting effect on the recovery of Mesolithic retouched forms. Mesolithic (corticated) tools from the fieldwalking included six pieces which could be described as microliths as well as five truncated blades, and eleven scrapers. In contrast the test pitting assemblage (which is less than half the size of the fieldwalking assemblage) included almost double the number of microliths (11) and a dearth of larger retouched forms with only two scrapers and a retouched bladelet.

Not only does the much greater representation of microliths in the test pitting assemblage have implications for calculating the relative importance of different tool types at the site – perhaps reflecting the kinds of activities that were taking place – it also transforms our understanding of the chronology of the Mesolithic activity at Oily Hall. The microliths recovered from the fieldwalking included a mixture of ‘broad blade’ and ‘narrow blade’ forms characteristic of the Early and Later Mesolithic respectively (figure 5, a) and it seemed likely that both broad phases of the Mesolithic were represented more or less equally. By contrast the larger assemblage of microliths from the test pitting include only one or possibly two pieces which could be classed as broad blade forms alongside a much greater proportion of classically later Mesolithic forms, notably straight backed bladelets and micro scalene triangles (figure 5 b).

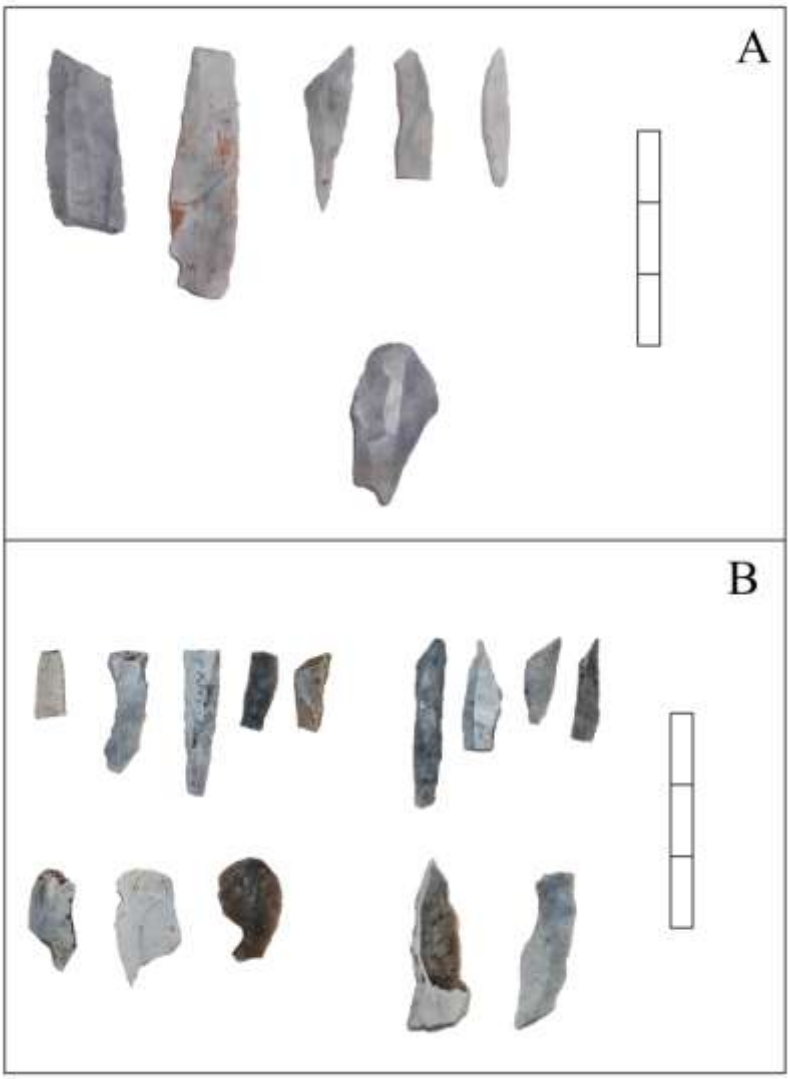

Figure 5. Microliths and microburins from Oily Hall. **A –** selected microliths and single microburin from the fieldwalking, **B** – microliths and microburins from the test pitting. Scale in cm.

Preliminary conclusions

The test pitting was carried out with three main objectives/research questions in mind which were set out in the proposal for the fieldwork:

1. To recover a larger sample of flintwork from the site, especially diagnostic Mesolithic pieces, of which relatively few were recovered during fieldwalking.
2. To allow explicit comparison between assemblages derived from a ploughzone lithic scatter using different sampling methodologies.
3. To test for the presence of surviving buried soils or features on the site.

The fieldwork has yielded important results relevant to all three of these objectives:

1. Despite its relatively small scale the test pitting yielded a substantial assemblage to complement that from the fieldwalking. Particularly important is the recovery of 11 diagnostic Mesolithic microlithic forms, which has substantially increased the total number from the site.

2. Initial analysis of the assemblage has revealed important differences between the test pitting assemblage and the fieldwalking assemblage, as discussed above. These have important implications for how we interpret ploughzone assemblages, especially those of Mesolithic date where the representation of the diagnostic retouched elements appear to be very susceptible to distortion caused by differences in sampling methodologies.
3. Remnant, truncated, buried soils were present in several test pits and these contained lithic material. Most significant was the discovery of an undisturbed buried soil, still overlain by a very thin layer of peat in the lowest lying point of the sampled transect. This suggests that fairly extensive areas of buried soil may survive at and below this point where the ground slopes down into the floodplain of the Cam. It is important to note that my earlier auger survey did not produce conclusive evidence for surviving buried soils and this highlights that widely spaced auguring may not be appropriate for this kind of assessment.