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AND TO CORNWALL

by Frances Healy

This note summarizes the results of an examination of lithic material recovered more than forty years ago by the late C.K. Croft Andrew during the salvage excavation of barrows on Davidstow Moor (part of Bodmin Moor) in north-east Cornwall. A full report will accompany Patricia Christie's account of the excavation.

Neither flint nor chert occurs naturally on Bodmin Moor, so that the 370 artefacts in both materials must have been imported, whether as finished objects or as raw material. Predominantly later Neolithic collections from two adjacent barrows (sites 16/23 and 22) included battered and rounded pebble flint, most of it pale-coloured, and a small quantity of Greensand chert, both of which would have been available in local beach deposits, a few km away. They also, however, included non-beach flint, characterized by thin, brown, relatively unabraded cortex, sometimes retaining marked surface irregularities, and a few pieces of Portland chert. The nearest source of *in situ* chalk flint is Beer Head, Devon, some 110 km to the east, which became a major quarry site in the earlier Neolithic (Care 1982, 277). Secondary sources, like the Devon head and gravel deposits noted by Wainwright and Smith (1980, 104, 106) are closer. The Isle of Portland lies 150 km to the east, although Portland chert may have been obtained as beach pebbles from the south Cornish coast, 35 km away. Both materials must have been transported some distance even if obtained from secondary sources.

The two cherts together make up less than five per cent of the total; a few unretouched flakes and blades in addition to finished implements suggest that both may have been worked on the moor. Slightly more than half of the cortical flakes from the two sites are of non-beach flint. This figure understates the frequency of the material, since the relatively large size and dark colour of many non-cortical flakes make them unlikely to have been struck from small beach pebble cores. Both beach and non-beach flint were brought to the moor in an unworked or semi-worked state and knapped there, on the evidence of cores, irregular waste, and unretouched flakes. Unretouched flakes and finished implements are more frequent among non-beach than among beach flint, probably a reflection of larger core size and higher quality, perhaps also a reflection of the import of blanks and finished implements in addition to nodules and/or cores.

The acquisition of non-beach flint and Portland chert by occupants of Davidstow Moor at the turn of the third and second millennia bc reflects the persistence of networks established hundreds of years before. Whittle's map (1977, fig. 9) of earlier Neolithic sites in the south-west of England on which 'Beer' flint has been found shows that by the early third millennium bc non-local flint was widely distributed in the peninsula. Green's distribution map (1980, fig. 25) of Portland chert arrowheads, including the leaf-shaped forms of the earlier Neolithic, presents a similar picture. This is seen most clearly at the Earlier Neolithic enclosure of Carn Brea, Illogan, where a few implements, especially arrowheads, of Portland chert were present, and where approximately sixty-two per cent by weight of cortical cores and core fragments were of non-beach flint

(Saville 1981, 107-108). Applied to the total weight of struck flint excavated from the eastern summit enclosure, this figure gives a minimum of 17.85 kg of imported flint. If, as Mercer suggests (1981, 62), the excavated areas accounted for some twenty-five per cent of the enclosure's artefact population, then at least 71.4 kg of imported flint would have been discarded there. There is also the possibility that some of the flint brought to Carn Brea, by any standards a major centre, may have been removed elsewhere, raising yet higher the total imported to the site.

The means of obtaining non-local flint seem to have broken down in the peninsula by the later second millennium bc, on the evidence of the Bronze Age industries from Carngoon Bank, Lizard, and Stannon Down, St. Breward, both of which were made on mainly beach pebble flint (Smith 1980, 52-53; Mercer 1970, 31). The westward transport of flint may, like the reciprocal eastward transport of Cornish stone implements, have lasted to the mid-second millennium bc (Smith, 1979, 14), by which time the importance of both materials was waning.

Cornwall contributes to a growing volume of evidence, including that presented by Saville (1982) and by both Grinsell and Henson (this volume) that flint was transported between regions as nodules and/or cores as well as in the form of finished implements. It was also transported as blanks or preforms, as shown by two 'hoards' of large, unretouched flakes found in the peat of the Somerset Levels (Coles *et al.* 1970, 145; Coles and Orme 1978, 118). Young (1984) shows that sources in the north could include surface deposits as well as readily-identified mines and quarries. Care (1982) has begun to outline the scale and complexity of procurement patterns in the south-west. The broad picture can be filled-out by further macroscopic studies.

Detail could be filled-in if flint analysis and petrological identification were to progress from the attribution of arbitrarily-chosen artefact types to fortuitously-known mine and quarry sites. The characterization of sources would be more meaningful if accompanied by the kind of groundwork which has begun at Great Langdale, so that, at the very least, their variety and location within a given region were established by systematic survey, and their use elucidated by technological analysis. This done, the destination, use, and nature of their products might be clarified by the sourcing of samples drawn from entire stratified assemblages, without prejudice as to location or artefact type. The first three articles in this issue are a heartening recognition that the study of raw material sources is an integral part of the main text of prehistory, not a specialist appendix to it.

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