Interpretation of the Formation Processes of One Context on the North Downs in Kent

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It is perhaps more appropriate to add ‘problems with’ to the beginning of the title, as it was the lack of an accessible method for interpreting this specific context that led to thought on ways in which interpretation could have been better served. It was realised, after the fact, that the information necessary to the interpretation of the context had not been collected in the field and only questions as to its nature could be posed.

The subject, context 2, was a constituent of a site known to the Canterbury Archaeological Trust, rather prosaically, as F72; one of a large number of sites discovered during survey work by C.A.T., prior to the construction of the Channel Tunnel Terminal. F72 lay at the bottom of the southern slope of Castle Hill near Folkestone, at about 70 m OD.

On top of the hill itself, Caesar’s Camp, is a Norman keep, excavated last century by General Pitt-Rivers. There is also a likely Neolithic causeway enclosure, evidence of which comes from both the shape of earthworks on the hill and a small excavation carried out by C.A.T. in 1987.

F72 was excavated by C.A.T. between October 1991 and March 1992 in advance of an extension to the A20, made necessary by the expected rise in traffic with the imminent opening of the Channel Tunnel. The excavation was funded by English Heritage, with agreement for access coming from the Department of Transport and Transmanche Link.

The excavation took place during the coldest (and wettest) winter months on an exposed hill slope; indeed, conditions could not have been much more adverse for detailed archaeological work. In addition the ‘window’ or period of time allocated for the excavation was, initially, three weeks. This meant that what realistically could have been expected in terms of a record was a very basic salvage of the site. The amount of time for excavation was then extended, however by this point context 2 had been excavated. Therefore what follows here is to an extent wishful thinking from post-excavation with the benefit of hindsight.

Most of the features perceived on F72 were cut into underlying chalky colluvium or hillslip. The most prominent of these features were three ring ditches (cuts 102, 103 and 104), first seen through aerial photography, and which were the original reason for the rescue excavation. Most of the rest of the features were interpreted as either pits, post-holes or stake-holes. Pottery from these features has been variously dated to the Late Neolithic/Early Bronze Age Transition, or Beaker period, to which the ring ditches are dated; Deverel Rimbury or Middle to Late Bronze Age from one feature, and quite a lot of Early Iron Age material from the later features. Truncating all three ring ditches and many other cut features was a very large unbounded cut (101), interpreted as a terrace of Early to Middle Iron Age date; filling this unbounded cut was the context in question.

Context 2 was defined upon stripping off the top stratum, which was a redeposited and much abused soil layer. It lay underneath a service road, which serviced Channel Tunnel work on the portal at Holywell Coombe and then had a massive spoil heap placed on top. This left context 2 so compacted that when it was struck with the point of a mattock, the mattock bounced back, leaving a small diamond shaped impression on the surface.

From its surface, context 2 looked remarkably uniform and undifferentiated. It was homogeneous in colour, compaction, in its most common inclusions and fine components. The initial, on-site, interpretation of context 2 was as a single unit of relatively slowly accumulated colluvium caused by soil erosion up slope. This may have been the result of intensive agricultural use in prehistory. At the time it was very difficult to predict its information potential for reasons that hopefully will become apparent.

F72 was a rescue excavation and, as mentioned above, time was therefore at a premium. The options for the excavation of context 2 were therefore limited, particularly as the major overriding aim of the excavation was the investigation of the ring ditches. Taking it down in spits by hand was not a feasible option, given the time limitations, the number of available archaeologists and money. It was already known that in places context 2 was almost 1 m deep and that its compaction was formidable. The decided method of excavation was in effect to sample the context by hand. Three slot trenches 1.5 m wide were excavated running down slope from the edge of the cut to the site edge, located to the south. The
remaining vast majority of the context was excavated by machine, with recovery of materials when spotted.

During the slot trench excavations a few lenses with slightly different components were discovered. Within a couple of these lenses whole, though crushed, pottery vessels were found. None of the lenses had been visible from the surface of context 2, indeed some were nowhere near the surface. They were all surrounded by the homogeneous material which made up context 2 and were discovered in a ‘quarrying’ fashion. These inclusions were loosely interpreted as either ‘occupation’ episodes which had occurred during a slow colluvial accumulation, or as material that had been engulfed and transported by a quick colluvial accumulation.

Apart from the pottery content of the lenses, there was also a large assemblage which came from the general context. This consisted of quite fresh looking material of Early to Middle Iron Age date together with relatively abraded sherd  s from both the Early Bronze Age and the Late Bronze Age.

Another, conceptual, context was delineated when darker patches were uncovered within an area of context 2; there was no definite boundary to this area. This context (context 14) upon excavation proved to be basically the same as 2, with the exception of the dark patches of fine silty loam which contained a far greater density of pottery than was generally the case within 2. The frequency of these inclusions and their size increased with depth, until it was discovered that they lay above pits which could be seen as cutting natural. It seems likely that these pits were cut through the colluvium at a mid-point in its accumulation, this relationship then becoming blurred through unknown processes, guessed at as being bioturbation.

Many of the features that could be seen to cut the chalk had upper fills which were very similar, if not identical to 2. There was no sharp definition, only a diffuse boundary between any of the layers filling features directly underneath context 2.

What can be said about the formation of the context from this rather meagre data set?

The original interpretation, of there having been a long term accumulation of colluvium is still the most credible. This interpretation is supported by the inferred evidence for pit cutting from a mid-point in the colluvium. Alternatively, if the dark patches or context 14 are given a different inferred process of formation, one where an unknown process of bioturbation brings up material from underlying contexts (namely the pits) into the body of context 2, then the colluviation could be explained as occurring quickly, incorporating occupation materials lying in its path.

The data to discern deductively between these two interpretations, or inductively to create new ones, does not exist. In either case there is a dislocated ‘occupation’ sequence, for which we have very little recorded contextual information. For instance, using the first framework of interpretation, any cuts within the colluvium became filled with very similar material to that into which they were cut; even if they had additional fills of other materials, they may only have been recorded as lenses or inclusions in context 2 and their spatial position may have been left unrecorded.

If the assumption is made that the ceramic material within context 2 dating to the Early to Mid Iron Age is in situ, since it occurred in groups that seem to represent whole or large proportions of vessels, then the rest of the material can be considered as residual. The spread of the in situ materials within the context may have some pattern which would perhaps facilitate an interpretation of the cultural nature of the ‘occupation’ that enacted their deposition. Without this spatial information on these materials it is difficult, if not impossible, to discern the nature of the context of deposition. In Schiffer’s terms, the archaeological context gives no interpretive handle with which to know and understand the systemic context from which the artefacts originated (Schiffer 1972).

If the first assumption is accepted then a further assumption can be made: the context of deposition for the Iron Age pottery within 2 was as secondary refuse, although with the proximity of the ring ditches latent ritual deposition cannot be completely ruled out. Either way, these assumptions then logically lead to a third assumption: there were cut features within the body of 2 or prior to its accumulation but lying further up slope. More tenuously, if the pottery represents secondary refuse then it is also probable that structural remains of settlement may have likewise existed, in fairly close proximity to the refuse deposition areas.

There were many features cutting the chalky hillside that could have originated at a higher, and to all intents and purposes invisible, level within the body of context 2. Since the point from which these features were cut cannot be ascertained, they all coalesce into one group, in a relative chronology based on the visible stratigraphic sequence.

It was clear from the artefacts recovered from some of these features below the level of the chalk that there were at least three phases of activity on the site. However, for many of the features, particularly those that may have represented the remains of structures, it was unclear to which phase they should belong, since no artefacts of diagnostic date were found within them.

Purely on its own, the stratigraphic sequence for this site does not help in producing a relative chronology for all the contexts excavated. The stratigraphy has effectively been erased or, at the very least, blurred through other processes.

With hindsight, there were several options for
Fig 1: Context 2, site F72 cut by ring ditches
applying tools at the time of excavation which would have increased the information content. Crucially, the soil micromorphology of contexts 2 and 14 was not examined. This would have solved the enigma of the duration of colluvial deposition and hence whether the ‘occupation’ was in situ or redeposited from further up Castle Hill. Other methods for dealing with blurred sequences have been recommended; one example was discussed by Needham & Stig-Sørensen (1988). Their blurred sequence was a ‘midden’ deposit at Runnymede, a Late Bronze Age settlement site situated on Thames gravels between Berkshire and East Surrey, which suffered from a similar homogenising of stratigraphic relationships, this time in alluvial deposits.

At Runnymede in situ pottery groups were recorded by planning at 1:5, and each sherd was given a number. This level of detail allowed processes to be inferred from the position, condition and relation of the sherds to each other. This allowed interpretation of the nature of the original depositional surface and post-depositional changes which might have occurred. In effect, pottery groups which appeared to be in situ were treated as separate contexts, each representing at least one particular cultural event.

Potentially, a similar data set on the pottery groups for F72 would have allowed the inference of the upper parts of features and hence the upper levels of the stratigraphic sequence and a relative chronology for the site. This in turn may have led to the delineation of structures and/or cultural activity zones within the body of context 2. In practice this may in part still be possible with detailed analysis of the pottery recovered from 2, looking at ‘cross-fits’ between sherds, but the spatial information will obviously not be recoverable.

The individual aspects that were missing from the recording of context 2 in terms of requirements for the interpretation of its formation and relationships with other contexts were:

1. A series of soil micromorphological samples from 2 and 14.
2. Detailed positional information on the in situ pottery groups.
3. Spatial information on lenses and any large inclusions within the context.
4. A full contour survey of the surface and perceived bottom of the context (necessary in order to relate the positions of the inclusions to an overall position in the context).
5. Full recovery (or as close as possible) of artefacts with three-dimensional information on the position of each.

The above are considered necessary for the in-depth interpretation of the context. How feasible is the collection of such a data set within the confines of a pressurised rescue excavation? Excavating the whole context by hand, in this case, was never going to be an option; quite literally it would have taken years. A quick method of excavation and recording would have been necessary.

A way of achieving this would have been to excavate shallow spits with a machine, one area at a time, leaving a series of sections at various locations across the context from which soil micromorphological samples could be taken. Following the machining, artefacts and inclusions could be spotted, recorded and further excavated. The recording would consist of plotting the position of the anomaly in three dimensions, which would most effectively be done using an Electronic Distance Measuring device, or in the case of a pottery group recording in plan at 1:5 and separately numbering each sherd. Using such a methodology a greatly enhanced data set could have been provided for context 2 in a relatively short amount of time.

Additionally, some post-excavation analytical tools would be necessary in order to interpret the data set, most importantly a method for viewing and manipulating the data in three dimensions, namely a three-dimensional computer mapping system. Also standards of pottery abrasion for the various periods and fabrics involved should be generated so that models for sherd movement can be established. Such tools would have applications in any situation where stratigraphic blurring is suspected.

References