POTENTIAL RECOGNITION: EVALUATING LITHIC SCATTERS – CURATORS’ CONCERNS

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INTRODUCTION

The location and evaluation of lithic scatter sites within or beneath alluvium or colluvium is problematic. In this paper we hope to show that curators are aware of these problems and are trying to address them. There is undoubtedly room for improving the results currently being obtained from some of the techniques and methodologies, which have recently been employed in Cambridgeshire and the level of their success, will be presented and discussed.

THE CURATOR’S ROLE

To begin with we will briefly discuss the curator’s role in the process of evaluation, the purpose of evaluation within the planning process and what its aims and objectives should be.

The publication by the Department of the Environment in 1990 of Planning Policy Guidance note 16 Archaeology and Planning (hereafter PPG16), has resulted in archaeology being a material consideration within the planning process. The government guidelines state that “care should be taken to ensure that archaeological remains are not needlessly or thoughtlessly destroyed”. Preservation in situ where possible is the aim. Where remains cannot be preserved in situ preservation by record may be an acceptable alternative.

In order that informed and reasonable planning decisions can be made information is required concerning the potential archaeological implications of a proposal. Depending on the site this information may already be available, for example previous excavations may have been undertaken adjacent to the site, cropmarks identified and plotted, or the area may have been fieldwalked. Where there is not sufficient information available the curator will advise the Local Planning Authority that more information is required, this may be requested in the form of a desk-top assessment or some form of field-based evaluation, or a combination of the two.

The first stage in identifying the potential archaeological implications of a planning proposal is an appraisal of the known and/or potential archaeological remains on the site. The County Sites and Monuments Record (SMR) is normally the first database of information which is consulted. However, where there are no known remains it is the potential of the site for the survival of important archaeological remains, which must be considered. To assess a site’s potential, various factors need to be considered including the known archaeology from the general surrounding area, the underlying geology and the geography and topography. Combining this information with archaeological experience and local knowledge, as well as professional judgement, a considered opinion on the potential for the preservation of important remains on the site must be reached. Any decision made by a curator may be challenged and must therefore be strong enough to withstand detailed scrutiny, for example, in a hostile appeal situation. To make a decision that is not based on strong accepted criteria may lead to the decision being overturned by a planning inspector.

One such criterion is the presence of alluvium or colluvium. It is now well known that the presence of such deposits on a site greatly increases the potential for the survival of well-preserved archaeological remains. Alluviation and colluviation protects any underlying landsurface/s and any remains of human activity deposited on or cut into those landsurfaces. However, this protection, by virtue of its depth will also normally mask these remains from detection at the surface by most if not all, non-intrusive prospection techniques currently in use. Recent English Heritage guidance advises that geophysical prospection techniques are only reliably effective through deposits up to a maximum depth of c 0.5 m.

The curator will normally recommend that a pre-determination evaluation is undertaken where a site is considered to have the potential for the survival of important archaeological remains, particularly where the viability of the proposal might be affected by their presence, but there is inadequate information to make an informed planning decision.

Evaluations may also be required as part of schemes of work to be carried out after planning consent has been granted but prior to the commencement of development. These are normally secured through conditions placed on planning consent. These would normally only be recommended where the presence of nationally significant remains is considered unlikely and the proposed development would be capable of supporting any necessary mitigation.
The curator will then produce a design brief, which sets out the scope of the work, methods to be considered, aims and objectives and the level of information to be provided in any report. In Cambridgeshire evaluations are increasingly phased with reviews subsequent to each stage and a combination of techniques including desktop assessment. Aerial photographic survey, auger survey, geophysical survey, test-pit sieving and trenching among others are recommended. The requirements of the brief must be relevant to the specific potential of the site, which must also be addressed. In Cambridgeshire the brief does not form a detailed specification but is intended to be the basis for one. Where competitive tendering occurs a design competition from contractors is sought.

The identification of the potential of a site is the first hurdle in ensuring that important archaeological remains are not needlessly or thoughtlessly destroyed. In general the methodological approaches which have been formulated for the evaluation of sites in the planning process have not been specifically geared for the identification of lithic scatter sites resulting in a perceived bias against the full consideration and recognition of the importance of lithic scatter sites. Historically this may have been the case where early prehistory in general did not have such a high profile as later periods and the finds were considered to be less “spectacular” and “interesting”. The comparative paucity of available information to interpret did perhaps, in the past, make this period a poor relation to later prehistory and beyond. The recent production of national and regional research priorities have helped to redress this situation and have placed lithic scatter sites in general and particularly those from the Palaeolithic and Mesolithic high on present and future research agendas. This has required a rethinking of the aims and objectives in design briefs and the methodologies undertaken to address these by contracting units.

A situation common also with other types of archaeological evidence is a lack of consistent information on the available databases such as Sites and Monuments Records. This situation has resulted from the ad hoc nature of the survey and collection work, which has previously been carried out. There has also been very little formal collection and centralising of other relevant information such as borehole data and pre-PPG16 excavation archives.

The identification of potential for the presence of lithic scatter sites has therefore only achieved a fairly basic level of predictive modelling to date. It is, however, intended that this situation will be improved.

Once the potential importance of lithic scatter sites is accepted and the potential for the presence of lithic scatters on a site has been identified, the problem remains of physically locating any scatters, if in fact they are present at all. The only way of being confident that any lithic scatter sealed by alluvium will be discovered is to investigate the whole of the site. However, this approach is not an evaluation option. Evaluations are constrained by other factors such as cost and time. An acceptable compromise has to be found which will supply adequate information to enable decisions on the presence and importance of surviving archaeology to be made as well as being able to formulate options for its future management whether by preservation in situ or by record.

Finding the acceptable compromise is perhaps the main point, which is being addressed here. At present it appears that when lithic scatter sites are evaluated what is acceptable to the archaeologist and prehistoric specialist is unacceptable to the developer and vice versa. It is apparent from the paucity of new sites being discovered which purely comprise artefact spreads, other than surface scatter sites, that either this early part of the archaeological record is even more poorly represented in those areas which are being investigated than was previously thought, or that the evaluation techniques being used are not adequate in recovering the presence of these types of sites.

In comparison with other types of archaeological evidence the importance of lithic scatter sites is not always considered to have received adequate attention. During evaluation and excavation the discovery of one level, type or period of important archaeological remains can distract archaeologists from achieving all of the original aims and objectives set out in any brief or specification within the constraints of time and the project budget. The location and investigation of other levels, types or period of archaeology can therefore suffer. The lithic component of a multi-period site, for example, may not be sufficiently explored for the sake of, perhaps, a Saxon settlement. The importance of a Saxon settlement is immediately recognisable but a prehistoric site, which consists of only lithics, is neither so easily recognisable nor dateable as the Saxon remains. The achieving of aims and objectives requires careful monitoring on the part of curators to ensure that elements of the picture are not being unintentionally missed or crowded out, and where necessary additional resources should be sought.

More detailed predictive modelling is needed to focus more accurately the intrusive archaeological work which is necessary to actually identify scatters. Recommendations were made in 1992 with respect to the Fenland Project for the large-scale excavation of several known Mesolithic/Neolithic scatter sites and for the subsequent use of Geographical Information Systems (GIS) data to attempt to predict possible areas of buried sites. This aim has not yet been achieved within the Fenland Project although in Cambridgeshire the potential for such predictive modelling to be possible increases with the shortly expected transferral of the SMR to GIS.
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At other sites in the county, evaluation has comprised the investigation of trial trenches. An evaluation in advance of hotel development and gravel quarrying at Huntingdon racecourse situated on alluviated gravel terrace deposits of a tributary of the river Ouse was undertaken by Cambridge County Council Archaeological Field Unit (CCC AFU) in 1993. The trial trenching was undertaken with close observation of alluvium removal. There are practical problems in the removing alluvium; it can be extremely physically hard, resulting in the work progressing slowly. However, it allowed detailed observation of the alluvium every few centimetres, minimising the chance of missing features and artefacts. Although no archaeology was identified during this removal a...
buried soil was identified sealed beneath the alluvium across a large part of the site. No lithic assemblage was found in association with the buried soil, all lithic artefacts were recovered from the fills of cut features.

The careful machining of the alluvium proved to be very expensive for minimal return and therefore the decision was taken that for the excavation of the site similar slow stripping would not be undertaken. The alluvium, including the buried soil, was therefore completely mechanically stripped. In general terms this site is considered to have been successful in the recognition of important archaeological remains through evaluation and the mitigation of the proposed threat (preservation by record occurring). However, although machining was done under archaeological supervision no flint was recovered from the buried soil. The component of the lithic assemblage, which was not within features, has therefore been completely lost from this site. An evaluation methodology which incorporated some form of test-pit sieving to allow hand-sampling and investigation of the buried soil across the site may have identified activity evidence which could then have been more effectively sampled or excavated.

At the site of Duxford Mill an evaluation was undertaken in advance of the construction of a by-pass relief channel by the National Rivers Authority (NRA) on the alluviated gravel terraces of the river Cam in 1994 by the Cambridge County Council Archaeological Field Unit (CCC AFU). Limited borehole information was available which identified the presence of peat beneath alluvial deposits. The evaluation methodology adopted comprised trial trenched at intervals along the length of the proposed channel. A staged approach to the machining was carried out to identify both any possible level at which features or any preserved ground surfaces were present and then to investigate down to the level of the river terrace gravel surface after the examination and sampling of the higher level. A disturbed and redeposited peat was identified with a limited area of undisturbed peat overlying the gravels. Within this undisturbed area a small and discrete scatter of Late Mesolithic/Early Neolithic flint was identified comprising 46 flints. A potential mitigation scheme proposed by the contractor comprised the investigation of evenly distributed test pits with hand-excavation in controlled spits employing three dimensional recording with bulk sieving for faunal remains and the smaller lithic component in order to define the presence of further scatters. As a methodology this would certainly have the capability of achieving its objective depending on the proposed distribution. However, the scatter found had been identified as probably representing the discard of a single knapping event, suggestive of a hunting expedition into a resource-rich riverside marsh rather than a more permanent occupation or settlement. None of the other trenches identified the presence of scatter sites. This is considered to have been a successful evaluation, which added important information to the knowledge of the Mesolithic and Neolithic periods in this part of Cambridgeshire. Although a scatter site was identified further excavation was not considered necessary given the nature of the lithics recovered.

It is also useful to discuss a non-alluviated site, Hinxton Quarry, in connection with identifying the importance of lithic scatter sites by inter-site comparison. This is something of a cautionary tale as highlighted by the Cambridge Archaeological Unit who undertook the fieldwork. The site of Hinxton Quarry was a proposed gravel quarry. An initial evaluation, one element of which was the fieldwalking of a transect across the site, identified an extraordinary density of worked flint within the ploughsoil, quadruple that of potentially comparable sites elsewhere in the county indicating it was considered that the area had been intensively utilised. Further fieldwalking was proposed which took place some months later with the field being ploughed specifically for this purpose. However, during the second phase of fieldwalking the density of lithic material recovered was a third that it had been from phase one. Conditions during the two collections were different but were both considered to be good. The variability of the surface density from one episode of fieldwalking to the next does emphasise that for comparisons between sites, in terms of numbers of artefacts recovered, equating with intensity of activity and potential importance, only results based on total retrieval procedures can be relied upon.

CONCLUSIONS
So is PPG 16 working? Since its publication there has been no preservation in situ of any lithic scatter sites in Cambridgeshire threatened by planning proposals. Very few such sites have been identified and none of these have been identified as being of sufficient importance to require preservation in situ. No lithic scatter sites have been knowingly needlessly or thoughtlessly destroyed although the level of recovery of such sites does tend to suggest that they may not all be being identified. Further thought is needed on how to confirm this situation and remedy it if necessary.

Ways to improve the current situation are being striven for by curators. Although client costs are a concern more resources should be spent on the evaluation of large sites. A larger site does not automatically require a smaller percentage to be investigated. Clear statements at national, regional and local level are being formulated identifying these sites as research priorities. These will hopefully ensure that areas likely to contain
lithic scatter sites are recognised and their potential for preservation will be properly appraised.

Both curatorial bodies and contracting units are keen for methodologies and techniques to improve. More assessment of the techniques and methodologies which are currently being used and formulated for evaluations are required to ensure that this scarce resource is not unwittingly being destroying through the use of inappropriate recovery methods. At present efforts are being made for this to happen within the constraints of the planning process as well as through “research” projects.

Since there are no accepted guidelines for resolving these issues the main way forward must be to ensure the dissemination of information about the success or otherwise of differing evaluation techniques and methodologies. This should aid the comparability of information retrieved and help to build a more coherent picture of early prehistoric period in Britain.

BIBLIOGRAPHY
DoE 1990 Planning policy guidance note 16: Archaeology and planning