Evaluation Trenching

Evaluation trenching is defined by the Institute of Field Archaeologists (IFA) as "a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site" (Institute of Field Archaeologists Standards and Guidance).

This technique involves stripping the topsoil from a specified area in order to sample, or test for, the presence and extent of archaeological remains on a site. Normally the planning authorities will require a 2-5% sample of the area to be affected. Depending on the results of an evaluation, the planning authorities may decide that further archaeological investigation is necessary.

An evaluation trench being excavated over a gravel terrace near a royal Anglo-Saxon town discovered by aerial photography.

After cleaning back the trench, post-holes forming part of a building were discovered.

Evaluation is particularly effective at finding large features, or linear features, such as ditches, pit alignments, enclosed sites, field systems, Roman roads and so forth. It is less sensitive to archaeological sites that comprise small features with a dispersed distribution. The latter sites include Neolithic pit clusters, small post-built buildings, or isolated monuments such as cist graves. If such features are picked up by trial trenching this is often more by good luck than judgement and so other methods should be considered if this type of archaeology is expected.

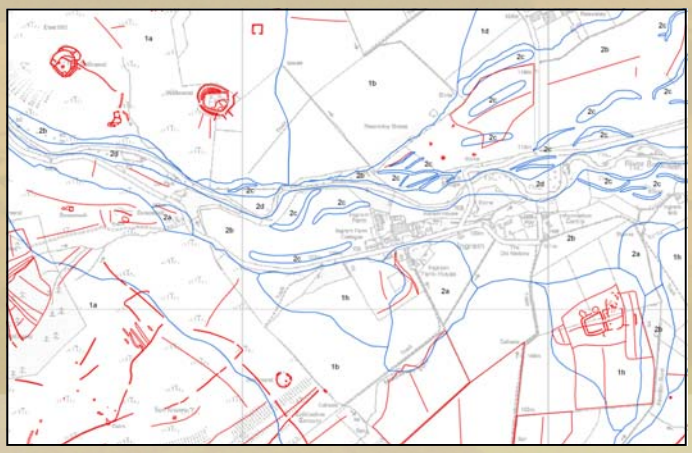
Evaluation is a medium expense technique that can be very effective for locating and evaluating large sites, linear features or sites where archaeological buried remains are anticipated. It requires a combination of mechanical excavation and limited archaeological investigation to assess the nature, extent and condition of the remains. It is used as part of the evaluation stage of the planning process and a minimum 2% coverage is usually required.

Archaeological features recorded in evaluation trenches are usually part-sampled and recorded.

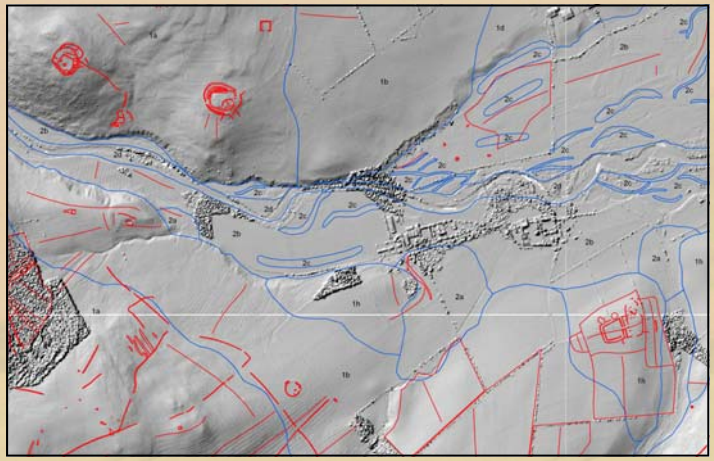
Geoarchaeological Evaluation

Geomorphological mapping is often the first step in a palaeoenvironmental assessment of a landscape for large-scale developments and it provides the geographical framework for the Till-Tweed planning guidance. This exercise helps us to understand how different parts of the landscape were formed and modified through time, and thereby allows us to determine the corresponding implications for the preservation of archaeological and palaeoenvironmental material. In particular, it is a valuable means of identifying areas where archaeological landscapes may be deeply buried under alluvial or colluvial deposits and hence difficult to detect by standard archaeological techniques.

Geomorphological mapping usually requires a programme of fieldwork and survey by appropriate specialists, supported by desk-based analysis of Ordnance Survey maps, geological maps, aerial photographs and various remote sensing techniques where appropriate and available. Mapping for the Till-Tweed project, for example, was greatly facilitated by a high-resolution topographic survey of the valley floor obtained by airborne Light Detection and Ranging (LiDAR) techniques. Completed geomorphological maps have been used as the basis for landform element classifications shown in Tables 1 and 2.



Example of a landform element map covering the Ingram area of the Breamish Valley.



Example of LiDAR-derived topographic image used to help produce the landform element map above.

Field-based geomorphological mapping is a rapid, cost-effective and relatively inexpensive technique which provides the basis for analysis of environmental change and the platform for evaluation and management frameworks. Detailed mapping of extensive areas can be greatly facilitated by high-resolution remote sensing techniques such as LiDAR, although these will add to the cost of survey.