An introduction to interpreting test-pit data

Soil in your back garden, or out in a field often contains a low-density **'background scatter'** of historic cultural material – pottery, building material, clay tobacco pipe, glass, metalwork etc. This **MAY NOT** be indicative of an underlying archaeological site. Instead, it could be evidence for prolonged non-intensive relocational deposition, typically associated with the improvement of cultivation soil (e.g. manuring and marling of soil with imported domestic waste to improve its quality).

Key to identifying intensive archaeological activity (a site) near your test-pit, therefore, is dependent on recognising anomalies in this background scatter. To do this, artefacts from the test-pit must be **IDENTIFIED** (categorised and spot-dated), **QUANTIFIED** (counted and weighed) and **INTERPRETED**.

REMEMBER – interpretation is an inexact science. We are making inferences regarding quantity, character and distribution of recovered material derived from a very small sample area (a test-pit will typically investigate no more than 1 cubic meter of soil).

Unknowns:

- How representative is the material in the test-pit of activity in the vicinity?
- What factors (both historical and contemporary) might have affected deposition, movement and preservation of material in the test-pit?

For the purposes of test-pitting:

- A **SITE** is a concentration of archaeological material from a test-pit which is of sufficient quantity to suggest that activity was occurring in the immediate vicinity of the test-pit.
- A **SCATTER** is a low-density group of archaeological material from a test-pit which is not considered to be of sufficient quantity to suggest that activity was occurring in the immediate vicinity. Its presence in the soil may be due to other relocational activities.


Small worn pottery sherds = less likely to be occupation nearby


Large sharp-edged sherds = more likely to be occupation nearby

Things to consider when interpreting your data

The following are general guidelines which can be followed when analysing test-pit data **BUT THERE IS NO** standard formulae for assessment and these guidelines should be flexibly applied and tailored to individual projects.

Pottery from some periods is less common than from others. Therefore, similar sherd count / weight from different periods can, in some circumstances, have widely different significance.

- 1-2 sherds of relatively rare and / or fragile prehistoric or Anglo-Saxon pottery could (cautiously) be interpreted as evidence of occupation in the immediate vicinity of a test-pit. While for periods where pottery was more widely used and was more durable, a larger quantity / weight of sherds may be required to draw a similar inference.

Therefore, a good rule of thumb for yields of Roman, medieval or post-medieval pottery per test-pit (where a test-pit averages 1 cubic meter of excavated material) is:

- Less than 5 sherds dated to one particular period = unlikely to be occupation of that period nearby. Pottery deposition is more likely a result of non-intensive relocational activity which may be contemporary with, or later than, the pottery.
- More than 10 sherds = likely to indicate occupation nearby.
- Between 5-10 sherds = could indicate occupation nearby depending on site-specific and / or test-pit specific factors.

When considering the pottery assemblage, sherd size, weight and condition are also important in determining the likelihood and / or proximity of occupation.

- Individual sherd weight over 5g = greater potential for occupation nearby.
- Individual sherd weight under 3g = less significance for occupation nearby.
- Worn edges = prolonged relocational activity (i.e. frequent repetitive movement in cultivation soil).
- Sharp edges = little relocational activity, (i.e. infrequent repetitive movement, recovery probably from near original deposition site).

So small worn sherds are less likely to be evidence of nearby occupation than larger sharp-edged sherds (in assemblages of mixed condition, greater emphasis would usually be placed on the dominant material condition present).

When considering small assemblages of Roman, medieval or post-medieval pottery (i.e. 9 sherds or less), these could indicate intensive activity nearby if all the sherds derived from one or more of the following:

- A restricted number of adjacent 10cm thick layers, usually just 1 or 2, in the test-pit.
- A layer or layers in the test-pit which contained no identifiably later material, with no identifiably later material coming from all layers beneath it either.
- A layer in the test-pit which contained other significant finds suggesting a specific period of activity.
- An archaeological feature (e.g. a pit, post-hole, wall or surface)

It is important therefore to consider the general appearance of the soil in each layer, the entire finds assemblage and any other pertinent evidence.

Finding the Story in your test-pit

Analysing material from test-pits, particularly pottery, allows the development of a place over time to be reconstructed in a way that documentary evidence rarely permits. However, this **DOES NOT** mean that the data should be used in isolation. It is important to use all sources of information available, both archaeological and historical. This is particularly true of post-medieval and modern finds assemblages where analysis of the material **MUST** compliment known historical information (maps, historic documents, photos, oral history etc.).

REMEMBER – care **MUST** be taken when interpreting the material as any inferences made are inevitably based on small samples which are potentially affected by a range of biases. Conclusions drawn from the study of multiple test-pits at the same property or across a wider settlement / landscape will be more reliable than those from a single test-pit, and negative evidence (i.e. when nothing was found in a test-pit) should be used with considerable caution.

What does negative evidence mean?

The absence of evidence is not necessarily the evidence of absence. If nothing was found in a test-pit you **MUST** ask yourself why. For example:

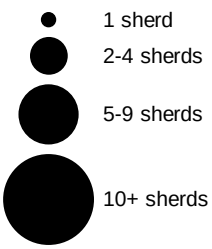
- **Was the test-pit dug to natural?** An unfinished test-pit means that data collection is incomplete and something could have been missed.
- **Was the test-pit's location the right place to dig?** Was there evidence of ground disturbance, truncation from modern landscaping or soil importation from unknown sources? Reduced ground levels may have destroyed evidence of occupation whilst raised ground levels may have buried it, making it harder to reach, and could have introduced contaminants which make the provenance of any finds recovered uncertain.

If modern considerations for negative evidence can be ruled out, what historic considerations are there?

- **Could historic activity be aceramic?** Were people not using pottery during specific periods, possibly influenced by availability / proximity of kilns and markets and / or their affluence?
- **Could more efficient removal of pottery from occupation sites to communal middens or surrounding fields be a factor?** Maintenance and improvement of soil fertility is a major pre-occupation of arable farmers of every social level during all periods of history. It could be the case, therefore, that a relative absence of material from test-pits in known occupation sites (i.e. historic village cores) counterbalanced by a low-density scatter of contemporary material from more marginal test-pits is still evidence of occupation in the wider landscape even if it does not provide information about activity in the immediate vicinity of each test-pit.
- **Finally, is historic activity dispersed and, therefore, potentially harder to find archaeologically?** Could your site be polyfocal or dispersed settlement rather than nucleated. This could affect the relative amounts of material present in groups of test-pits and can produce a greater number of negative test-pits than might have first been expected.

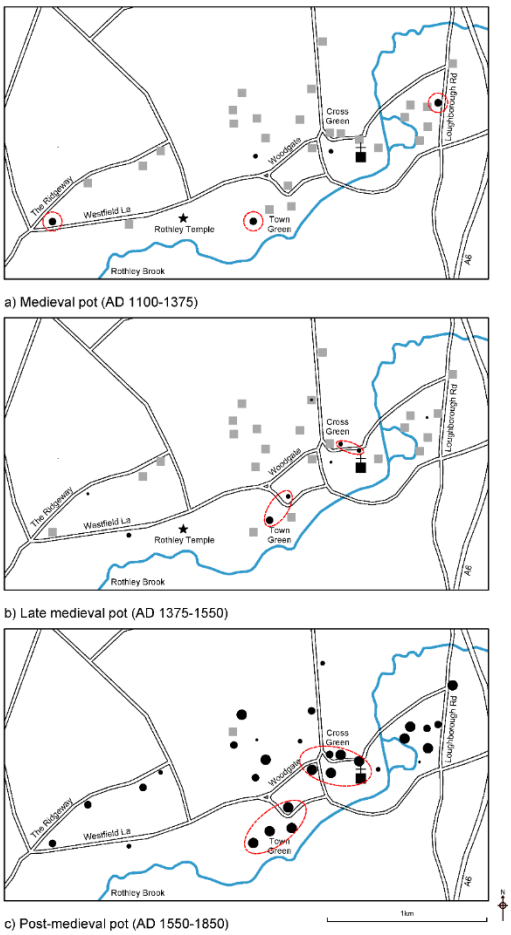
Plotting test-pit data

Data from multiple test-pits is usually plotted as a series of dot distribution maps (for find type / period), using a series of graduated dots to represent an increasing data range at each test-pit location (right). Alternate methods use different coloured dots, a graduated colour system or heat maps to represent the data. These show spatial patterns as a visual scatter, making them an effective method for revealing anomalies, trends and changes across a settlement / landscape over time. Maps can be created manually or using GIS software.



When looking at the material from your test-pit, ask yourself the following questions:

- Where was the test-pit located?
- What is already known about the site's history?
- Was the test-pit finished / natural reached?
- What soil / archaeology was found?
- What type of material was present?
- What is the date range of the material?
- Can changes be seen in the type / quantity of material over time?
- What do the finds suggest about the nature of activity nearby - domestic, industrial, commercial, agricultural etc.?
- Is there anything else of interest in the test-pit?
- How does material relate to the known history of the site? Is it consistent or inconsistent? Why?



Above: Pottery distribution maps for three historic periods, showing how pottery quantities changed through time at the village of Rothley in Leicestershire. Data suggests that the village evolved from a series of dispersed / isolated occupation sites (ringed in red) in the medieval period to concentrate around two greens in the late medieval and post-medieval period (polyfocal settlement), and that the village's modern nucleated appearance is a product of recent development (post 1850 in this case).