



Aide-Mémoire for Assessors

Extracted from Laboratory Analysis - Component Standard 8

A range of analytical equipment found at laboratories undertaking forensic analysis.

- a) Spectroscopy; e.g. UV/visible/IR/Raman, including the application of the Beer-Lambert Law to quantitative analysis, and sources of interference in spectrophotometric analyses
- b) Chromatography; e.g. TLC, HPLC.
- c) Electrophoresis; e.g. PAGE, CZE.
- d) Atomic spectroscopy.
- e) Mass spectrometry and related hyphenated techniques e.g. GC-MS.
- f) Immunochemical methods e.g. ELISA, RIA.
- g) Nuclear Magnetic Resonance (NMR).
- h) Electron Microscopy (EM) and X-ray Spectroscopy e.g. TEM, SEM, XDF.
- i) Refractive index and birefringence measurements.
- j) Shape measurement and analysis (e.g.: geomorphometrics).
- k) Macro- and microscopic imaging of tissue (e.g.: histological sectioning and viewing, radiological imaging, laser scanning).

Interpretation, Evaluation & Presentation of Evidence

- a) Forensic Archaeology
When the Forensic Archaeology Component Standard was drafted, Rob Janaway suggested that Numbers
 - (1) Demonstrate the application of archaeology methodology to the search and excavation of a range of buried or concealed human remains or buried objects (firearms, weapons, drugs, etc) within a legal context
 - (5) Explain the role of photography in recording crime scenes, including the role of scales and scene markers and
 - (8) Demonstrate a detailed understanding of the decay processes associated with the human body under a range of different depositional environments:
 - a. Explain the factors that will promote or retard soft tissue decomposition.
 - b. Explain the implication that this will have for search strategies employed and the recovery of associated evidence.

would not be appropriate for Forensic Archaeology.

However, the Accreditation Sub-Committee agreed to leave them in even though Rob Janaway considers that there could be difficulties.

He said *“In terms of the IEPE standards I fully understand why the committee does not wish to change them. I must say I can envisage difficulties in courses trying to implement all of these within a Forensic Archaeology curriculum. And I do fear that people may be tempted just to shoe-horn in, rather, extraneous material in order to meet the standard. I am especially concerned that they should not engage in mission creep and this is backed up by the professional standards for practicing forensic archaeologists.”*

Assessors should bear this in mind for any Archaeology courses.

In connection with frequency of occurrence data (point 8) the Assessors should consider differing *“We can deal with frequency of occurrence in terms of differential survival and loss of materials from depositional environments, although not numerically because unlike fibres this work has not been done.”*

Also experimental design *“we cover this formally in taphonomy modules.”*