Trace materials on footwear – Science or Ichnomancy?

The perils for interpretation of soil trace evidence.

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Overview

Soils and sediments

Experimental studies

• Temporal
• Spatial
Soils and Sediments

Physical, chemical, biological

Transferability
Quartz grain surface texture analysis
Forensically relevant classification system established (Bull and Morgan 2006)
Temporal considerations
After 140 days….

**Left Shoe**

**Right Shoe**
Spatial Considerations
Grain Type 1

Grain Type 2

Grain Types 3 & 4
Great complexity

Sampling and analysis

Interpretation issues
The Jill Dando Institute Centre for the Forensic Sciences is a new initiative at University College London. Its mission is to contribute significantly to the development of the forensic sciences through high quality multidisciplinary research, teaching & learning, and through the establishment of collaborative projects with external partners.
References


• French, J. C., Morgan. R. M., Baxendell, P. and Bull, P. A. 2011 Multiple transfers of trace particulates and their discrimination within contact networks. *Science and Justice* in press