



East Midlands Geological Society  
*Spring Lectures 2025*



Saturday 12<sup>th</sup> April 2025, 6.00 - 7.00pm

*Redeeming SOIL – from silo to treasure chest*

**Professor Paul Nathanail**

Land Quality Management Ltd & Nottingham Trent University



Soil contaminants exposed by badgers in a nature reserve

**Venue:** School of Geography, Sir Clive Granger Building,  
University of Nottingham, University Park, Nottingham,  
NG7 2RD [Google Maps](#)

[www.emgs.org.uk](http://www.emgs.org.uk)

## **ABSTRACT:**

### **Redeeming SOIL – from silo to treasure chest**

*Soil, earth, dirt, pedon, superficial, drift – call it what you will, the thin layer of #NotRock feeds us, waters us, provides useful materials and hosts enormous biodiversity. The scientific study of soil involves two very different viewpoints: contrast pedology & edaphology with engineering geology & soil mechanics.*

*To the engineering geologist, soil (aka #NotRock) is the system comprising a mixture of different size and composition particles, fluids and sometimes living organisms. Soils can be natural, manmade or hybrid. Soils are grouped into classes with similar properties such as strength, density, deformability, permeability. Genesis is marginal and engineering behaviour is central.*

*The pedologist describes and classifies soil and its formation. Pedologists group soils into units with similar compositions and morphologies. The basic premise is that similar parent materials (bedrock) subjected to identical environmental conditions of climate, biological activity, topography, and time, will result in identical soils.*

*The East Midlands has a wide range of parent materials or bedrock that is reflected in the diversity of soil types. These account, in part, for the location of quarries and pits, historic landfills, crop distribution, landslips, and urban form.*

*Modern environmental law makes many references to “soil” but, especially when it comes to waste law, in inconsistent ways that hinder sustainable development and circular land use.*

*Which dialect of soil do you speak?*

### **Professor Paul Nathanail**

Land Quality Management Ltd & Nottingham Trent University

Paul is a professional soil scientist, chartered geologist and specialist in land condition. He pioneered the use of digital soils data for planning purposes. He has often had to both translate and interpret soils maps for engineering purposes and has had to learn ‘pedologese’ as a result.