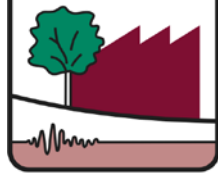


**NSGG**



Near-Surface  
Geophysics Group

## Recent Work in Archaeological Geophysics

The Geological Society  
Burlington House, Piccadilly, London W1J 0BG  
Tuesday 4<sup>th</sup> December 2018

### Programme

#### Lecture Programme:

- 0915-0950      **Registration and Coffee**
- 0950-0955      **Introduction**
- Session 1      *Towns: From Uruk to Kathmandu***
- 0955-1010      *Uruk (Iraq) Magnetometry in the First Megacity of Mesopotamia.* J W E Fassbinder, S Ostner, M Scheiblecker and M van Ess
- 1015-1030      *Vlochos Archaeological Project: Investigating Urban Development Using Non-Invasive Techniques in Thessaly, Greece.* D Pitman, R Rönnlund, R Potter, L Shaw, M Vaipoulou, H Whittake, F Tsiouka, J Klange and J Hagan
- 1035-1050      *Geophysical Survey of the Sanctuary and Roman Town of Lucus Feroniae, Italy.* S Kay, S Hay, S Keay, C Smith, M Berry and E Maw
- 1055-1110      *Seismic Safety in Nepal: Authenticity, Protection and Historic Tradition.* A Schmidt, R Coningham, K Prasad Acharya, C Davis and R Bahadur Kunwar
- 1115-1145      **Tea/Coffee break**
- Session 2      *The Recent past: ceilings to tunnels***
- 1145-1200      *Real-Time GPR Evaluation for Cultural Heritage Preservation.* P Barone and C Ferrara
- 1205-1220      *Integrative Interpretation of Gravity, Resistivity and GPR Data Over Foundations of Elsecar Gasworks, Barnsley, UK.* S Frandsen, A Booth, C Green, T Roberts, J Mound and J Gater
- 1225-1240      *Sensing Fort St-Pierre: Complementary Geophysical Survey of a 17th Century Fur Trade Post in Atlantic Canada.* J Fowler

1245-1300 *"It Had Been a Good Sport" The Discovery of a German PoW Escape Tunnel in Bridgend, South Wales.* L Rees-Hughes, J K Pringle, N Russill, K D Wisniewski and P Doyle

1305-1310 **Morning closing remarks**

1310-1430 **Lunch (Lower Library) – all delegates**  
**NSGG AGM (Lecture Theatre) – all welcome**

**Session 3** ***Reassessing what we know***

1440-1455 *The Fort in the Forest: Re-visiting Buckland Rings hillfort 25 years after its first survey.* L Shaw, J Brown, J Hagan, A Green, B Howard and J Monteith

1455-1515 *The Temple or Room? The Interpretation of the Frampton Roman Temple/Villa Site in the Light of Recent Geophysical Survey Results.* P Cheetham, M Russell and D Stewart

1520-1535 *Anomalies Don't Grow On Trees. Challenges and Results of Non-Destructive Archaeological Survey in Białowieża Forest.* M Pisz and R Zapłata

1540-1555 *Chasing a Drain and Finding Monks: Recent Investigations at Fountains Abbey.* C Gaffney, C Harris, M Langton, H McCreary, M Newman, T Sparrow and R Walker

1600-1630 **Tea/Coffee break**

**Session 4** ***Context and community***

1630-1645 *Broughton Roman Villa, Oxfordshire: A Wider View.* R Ainslie

1650-1705 *Cwmystwyth: Bronze Age Mining Hiding in the Welsh Mountains.* A Roseveare, M Roseveare and S Timberlake

1710-1725 *Geophysical Survey and Community Archaeology- Some Successes and Some Failures.* J Lyall

1730-1740 **Conclusion**

1745-1900 **ISAP AGM (Lecture Theatre)**

**Posters (09:30-19:00 in the Lower Library):**

*Geophysical Investigations of WW2 Air-Raid Shelters in the UK.* J Ainsworth, J K Pringle, P Doyle, M Stringfellow, D Roberts, I Stimpson, K Wisniewski and J Goodwin

*Aerial, Pedestrian and Geophysical Prospection in the Cantabrian Mountains: Early Results from the 'Upland Archaeology Project in NW Iberia'.* K Armstrong and D González-Álvarez

*3D GPR of a Roman Bath House at Castle Hill, Lancaster.* G Blanchy, P McLachan, T Min, M Tso and A Binley

*Multi-Disciplinary Geophysical Investigations into the 19th-Century Trentham Mausoleum, Stoke-on-Trent UK: Bodily Evidence of a Victorian Scandal?* L G Foster, J K Pringle, I G Stimpson, B Davenward, P Styles, K D Wisniewski and J Goodwin

*Over the Top, Under the Ground: Geophysical Survey at Birr Barracks, Crinkill, Co. Offaly.* A Green

*Discriminating Saxon Shield Boss From Unexploded Ordinance By Advanced Time Domain Electromagnetics: An Evaluation Study.* M Guy, P Linford and D Mortimer

*A Multidisciplinary Investigation to Discern Subsurface Features Evident in and Around Hawthorn Crater with Resulting Implications.* R Hunter, K Wisniewski, K Squires, A Robertshaw, J P Cassella, D Wright, N Lamont, F Graham, P Ottey, J Partridge and J Pringle

*Rediscovery of a Baroque Palace in Bavaria by Multi-Disciplinary Archaeological Prospection.* R Linck and J W E Fassbinder

*Mapping Verulamium.* K Lockyear

*What can we do with Red, Green, and Blue? Interpreting drone data from the West Green at Fountains Abbey.* H McCreary, T Sparrow, C Gaffney, A Wilson and M Newman

*A Possible Inlet Feature at a Roman Port: Using ERT and EMI to Characterise Quay Meadow, Lancaster.* G Blanchy, P McLachan, T Min, M Tso and A Binley

*Geophysics with a Lid On.* J Oswin and R Buettner

*A Tale of Two Hilltops.* J Oswin, R Buettner, J Pryke and F Medland

*Cwmystwyth: Bronze Age Mining Hiding in the Welsh Mountains.* A Roseveare, M Roseveare and S Timberlake

*Electro-magnetics (EM) as a Reconnaissance Tool in Defining Sites for Conflict Archaeology.* A Ruffell, C Graham, K Lilley and P McCarthy

*Pressing Wine In Iron Age Lebanon: Investigating Wine Presses At Tell El-Burak.* M Scheiblecker, A W Schmitt, H Gries and H S Sader

*Medieval Lowland Castles (Niederungsburgen) in Lower Saxony – Augmented Knowledge by Geophysical Prospection.* C Schweitzer

*LoCATE - The Local Community Archaeological Training and Equipment Project.* K Welham, P Cheetham, L Shaw and M Gill

*Geophysical Reassessment of Scheduled Roman Villas.* P Linford, N Linford and A Payne



## Environmental & Criminal Forensics

The Geological Society  
Burlington House, Piccadilly, London W1J 0BG  
Wednesday 5<sup>th</sup> December 2018

### Programme

#### Lecture Programme:

- 0915-0950      **Registration and Coffee**
- 0950-0955      **Introduction**
- Session 1      Search**
- 0955-1010      *Forensic Geophysics and Archaeology: From Missing People to Geohazards.* P M Barone and R M Di Maggio
- 1015-1030      *The Impact of Deep Oceanic Environments on the Recovery and Analysis of Submerged Human Remains.* A Ribéreau-Gayon, C Rando and R M Morgan
- 1035-1050      *Geophysical Assessment of Illegally Buried Toxic Waste for a Legal Enquiry.* A. Ruffell, J K Pringle, C Graham and G. Jones
- 1055-1110      *Forensic Applications of Electrical Resistivity Tomography: Lessons from the Beaumont Investigation.* I Moffat, X Mallett, K Simyrdanis, J Kowlessar and M Bailey
- 1115-1145      **Tea/Coffee break**
- Session 2      Search2**
- 1145-1200      *Wildlife Crime: Use of Geoscience Surveys and Geophysics to Assist Badger Sett Investigations.* K Wisniewski, J K Pringle, D Allen and G Wilson
- 1205-1220      *Long-Term Geophysical Monitoring of Control Test Sites: 10 Year GPR and Electrical Resistivity Surveys of Clandestine Pig Burials.* J K Pringle, K D Wisniewski, B Davenward, V Heaton and I G Stimpson

- 1225-1240 *The Application of Low-Altitude Near-Infrared Aerial Photography for Detecting Clandestine Burials Using a UAV and Low-Cost Unmodified Digital Camera.* R Evers and P Masters
- 1245-1300 *Geological, Geomorphological & Hydrogeological Influences on Victim Recovery Dog (VRD) Responses During the Search for a Homicide Grave in Peat.* L Donnelly, M Harrison and M Grime
- 1305-1310 **Morning closing remarks**
- 1310-1430 **Lunch (Lower Library) – all delegates**  
**FGG AGM (Lecture Theatre) – all welcome**
- Session 3**      **Trace Evidence**
- 1440-1455 *Forensic Soil Science from Scotland to Brazil: Sharing Knowledge and Experience.* S Tesonti, L Dawson, V Melo and F Salvador.
- 1455-1515 *Using Elemental Abundances to Determine the Source of Emeralds.* N Eby, C Beaudoin and A Mariano
- 1520-1535 *The Role of Forensic Geology in the Investigation and Mitigation of Fraud, Fakery and Theft, in the Mining, Minerals and Metals Industry.* L Donnelly, D Pirrie and A Ruffell.
- 1540-1555 *Soils from the Region of Lisbon (Portugal) - Characterization for Forensic Purposes.* Â Pacheco, H Ribeiro, H Sant' Ovaia, A Assis and A Guedes
- 1600-1630 **Tea/Coffee break**
- Session 4**      **Trace Evidence2**
- 1630-1645 *Multiple Suspects, Scenes and Soils Samples: Double Homicide Case.* A Ruffell and D Pirrie
- 1650-1705 *Identification: The Utility of Three-Dimensional Models of Paranasal Sinuses to Establish Age, Sex, and Ancestry.* M Robles, R. Morgan and C Rando
- 1710-1725 *Professional Ethical Considerations in Interpreting and Communicating Forensic Geoscience.* L Dawson, D Parratt, D Auchie and R M Di Maggio,
- 1730-1740 **Conclusion**

**Posters (09:30-19:00 in the Lower Library):**

*Environmental Forensics: Characterising Graveyard Soil as a Special Type of Landfill.* K D Wisniewski, H. Glanville, I. Oliver, A. Jeffrey, T Cooke, L Hall, T Coombes, L Barber, C. Madden and J K Pringle

*The Case for a Human Taphonomy Facility in the UK.* A. Williams, C J Rogers and J P Cassella

*3D Imaging and 3D Printing in Forensic Archaeology and Anthropology.* R M Carew, R M Morgan and C Rando.

*NMR and HPLC Approaches for Mammalian Decomposition Amino Acid Reaction Kinetics.* S Cooper, E Koch, A. Davidson and J Cassella

*The Influence of Water Current on the Pattern and Rate of Decomposition.* N Mirosch, V. Heaton, K Wisniewski and J K Pringle.

*Not Finding Fred: an Unusual Vertical Burial No-Body Case.* K D Wisniewski, N Cooper, V Heaton, C Hope, D Pirrie and J K Pringle

*The F.R.E.D. Project.* N West and colleagues.

*The Transfer and Persistence of Particulate Environmental Trace Evidence on Footwear Uppers and the Potential of Automated Analytical Approaches.* E Levin, R Morgan and V Jones.

**Commercial Exhibitors (09:30-19:00 in the Lower Library):**

Bartington Instruments Ltd

GuidelineGeo

DW Consulting

Sensors & Software

Geomatrix Ltd

Sensys Gmbh (4<sup>th</sup> Dec only)

Geoscan Research Ltd (4<sup>th</sup> Dec only)