



International Union of Geological Sciences (IUGS), Initiative on Forensic Geology (IFG)

Monthly Update and Information for IUGS E-Bulletin, April 2026

Forensic Geology, Institute of Earth Sciences, Heidelberg University, Germany

On 11-15 May 2026, Dr Laurance Donnelly, Dame Prof Lorna Dawson, Prof Duncan Pirrie, Dr Alastair Ruffell and Dr Benjamin Locke, in association with Prof Dr Yamirka Rojas-Agramonte will provide training in forensic geology for MSc students. The training will comprise crime scene examination, geological trace evidence and ground searches for burials, mining crime and illicit minerals trafficking. The module will include: (a) the role of forensic geology evidence in criminal, environmental and humanitarian investigations, (b) applications of geological methods in collating, recovering, recording, analysing, interpreting and reporting geological trace evidence, (c) understand and discuss the ethical and legal implications of forensic science, (d) critically assess real-world operation case studies and forensic reports, (e) use of GIS, remote sensing and geophysical data in crime scene investigations, (f) collaborate effectively in interdisciplinary forensic contexts, (g) develop life-long transferable interpersonal skills (e.g. effective communication, presentation, problem solving and negotiation). The training will include lectures and a practical session, attended by the German Police as well as students.

38th International Geological Congress, Calgary, Canada

IUGS-IFG aims to hold a session on Forensic Geology at the 38th International Geological Congress, in Calgary, Canada, in 2028. The First Circular is ready for distribution at <https://www.igc2028canada.org/igc-2028-circulars>

In addition to opening session submissions, this also marks the opening for submissions of short-courses, workshops and field excursions within the Americas. If you would like to submit a session or field excursion, please visit either the scientific session (also workshops and short-courses) submissions portal or the field excursion submission portal. Further information: kboggs@mtroyal.ca | laurance.donnelly@ahkgroup.com | geologist@hotmail.co.uk

Forensic Geology at the Edinburgh Science Festival

On 17 April 2026, Dr Laurance Donnelly, Dame Prof Lorna Dawson and Dr Fábio Augusto da Silva Salvador, represented IUGS-IFG at the Edinburgh Science Festival in Scotland. In association with the James Hutton Institute, the theme of the forensic geology session was, '*Forensic Geoscience: How to find out where in the world the crime was committed*'. Other speakers as part of this session were Mr Ryan McNeil (Enterprise Editor for Geospatial Investigations, Reuters) and Dr Lucy Webster, Wildlife forensic Scientist, Science & Advisory for Scottish Agriculture, (SASA). The presentations focused on illegal mining and illicit minerals trafficking, the Clean Gold Programme, searches for graves in Syria and wildlife crime. There were approximately 100 delegates comprising members of the public, students, researchers, post-docs and young scientists.

lorna.dawson@hutton.ac.uk | laurance.donnelly@ahkgroup.com | salvador.fass@pf.gov.br

FORENSIC GEOLOGY
MSc Block Course
Institute of Earth Sciences – Im Neuenheimer Feld INF 234-238
D-69120 Heidelberg
Heidelberg University | 11-15 May 2026

IUGS-IFG training in crime scene examination and geological trace evidence collection (left) and ground search for burials (right) (source: IUGS-IFG, Laurance Donnelly).

What is this course about?
Forensic geology (also known as 'forensic geoscience' or 'geoforensics') is the application of geology to police and law enforcement investigations.
Forensic geology includes crime scene examination, geological trace evidence, and ground searches for burials related to homicide, serious and organised crime and counter-terrorism.
Students will learn how soils, sediments, minerals and rocks can provide trace evidence that could be presented in court. They will also learn how to conduct ground searches for burials at a simulated crime scene.

International experts from:

- International Union of Geological Sciences, Initiative on Forensic Geology (IUGS-IFG)
- Academia (UK and Europe)
- Police agencies (Bundeskriminalamt, BKA), Germany
- Legal professionals and prosecutors

Core topics

- Crime scene examination and sample collection.
- Geological trace evidence and laboratory analysis including for example, mineralogy, geochemistry, XRD, chain-of-custody and associated protocols.
- Ground search strategies using GIS, remote sensing and geophysics.

The forensic interpretation, reporting, and communication of data, information and evidence in legal contexts, including expert witness and a mock trial.

Assessment
There will be a written examination.

Who should attend?
MSc students interested in forensic geology and applied geoscience.
Environmental and forensic science students.
Students interested in careers linking science, law and society.

Registration & contact
Prof. Dr. Yamirka Rojas-Agramonte
yamirka.rojas@geow.uni-heidelberg.de
Julia Souquet, studentendekretariat@geow.uni-heidelberg.de

Hands-on training will be provided at a simulated crime scene at the interface of: geoscience, law and society

IUGS-IFG forensic geology training, in Germany (source, Heidelberg University).



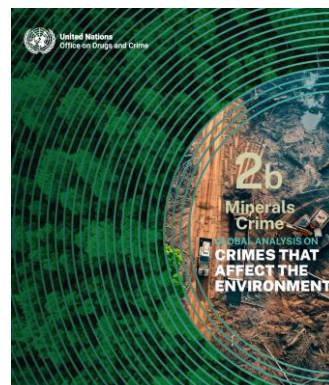
IUGS-IFG at the Edinburgh Science Festival, 17 April 2026 (Photographs, Dame Prof Lorna Dawson and The James Hutton Institute)

Forensic Geology Paper Referenced by UNODC

The United Nations Office on Drugs and Crime (UNODC) published a document on, 'Minerals Crime. Global Analysis on Crimes that Affect the Environment'. In the report, a paper by Dr Laurance Donnelly and Prof Duncan Pirrie was referred to called, 'Crimes Associated with Geological Materials: Mining, Minerals, Metals and Fossils.' *Geology Today* 40, no. 4 (July 2024): 159–64,

<https://doi.org/10.1111/gto.12487>.

https://www.unodc.org/documents/data-and-analysis/Crimes%20on%20Environment/ECR25_P2b_Minerals_Crime.pdf



Minerals Crime. Global Analysis on Crimes that Affect the Environment (source, UNODC)

Civil Society Policy and Illicit Gold, Illicit Finance Summit, 23-24 June 2026, UK Government

Gold continues to become important for organised crime, corruption, the evasion of sanctions, political control and forms an important part of the IUGS-IFG Special Project on Illegal Mining. Approximately, US\$ 89 billion worth of gold is reported to be traded each day. An Illicit Finance Summit will take place on 23-24 June 2026, hosted by the UK Government in London. An objective is to bring together governments, civil society and the private sector to focus on the fight against crime and corruption and the international flow of 'dirty gold'

<https://www.spotlightcorruption.org/report/civil-society-policy-recommendations-on-illicit-gold/>



Civil Society Policy and Illicit Gold, Illicit Finance Summit, 23-24 June 2026 (source, see website provided)

Soil Science Australia, Webinar: The use of Earth Materials as Forensic Evidence in Crime Scene Investigations

Soil Science Australia hosted a fascinating webinar presented by Professor Rob Fitzpatrick on 27 February 2026, which showcased the value of soil science in a variety of disciplines as he explores the role of soils in forensic investigations. Prof Fitzpatrick is IUGS-IFG Vice-chair, and founding Director of the Centre for Australian Forensic Soil Science, formed in 2003, and is now based at Adelaide University. Over his career Prof Fitzpatrick has contributed to hundreds of forensic and environmental investigations and helped establish forensic soil science as a recognised discipline used by law enforcement. In this presentation, Prof Fitzpatrick walked through real operational cases presented in Australian courts, showing how earth materials can link people, objects and places at landscape, crime scene, and microscopic scales. He also discussed the innovative techniques used to analyse tiny traces of soil, including particles found on clothing, and how this evidence is interpreted and presented to judges and juries. This fascinating look at how soil science helps solve complex crimes can be watched in the following video recording

<https://www.soilscienceaustralia.org.au/webinars/> | [Webinars - Soil Science Australia](#)

OECD and Due Diligence for Responsible Sand and Silicate Supply Chains

OECD has provided information and guidance on sand and silicate supply chains are the second most-extracted resource globally after water. This links well and aligns with the recent 'Sands of Change' conference held by IUGS-IFG, the Geological Society of London Forensic Geoscience Group and the British Geological Survey, held at the Geological Society of London, on 18 March 2026. The OECD report gives information on risks, business conduct, supply chains and the impact on human rights and environmental impacts. Information is also included for policy makers and private companies with respect to due diligence and resilience.

https://www.oecd.org/en/publications/due-diligence-for-responsible-sand-and-silicate-supply-chains_7be0093e-en.html

ENFSI APST WG in Madrid at the Guardia Civil

Dame Prof Lorna Dawson represented IUGS-IFG at European Network of Forensic Science Institutes (ENFSI), Animal Plant and Soil Traces (APST) expert working group that was held in Madrid, at the Guardia Civil. Further details regarding ENFSI APST can be found on the link below:

<https://enfsi.eu/about-enfsi/structure/working-groups/animal-plant-and-soil-traces/lorna.dawson@hutton.ac.uk>

Non-Fiction Book on Forensic Geology

Prof Rosa Maria DiMaggio (IUGS-IFG Officer for Europe) is working on a narrative non-fiction book inspired by several cases working as a forensic geologist. Along with her professional journey, from early days in the Forensic Police Department in Rome, to current work as an independent consultant. Further information will be provided when the book is available.