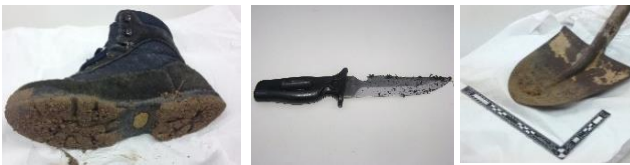


## Forensic Geology

Forensic geology (also known as Forensic Geoscience or Geoforensics) is the application of geology to policing and law enforcement, which may potentially be applicable to a court of law.

Forensic geology assist police and law enforcement in relation to: serious crimes (homicide, rape, and sexual assaults), organized crime, counter terrorism, kidnapping, humanitarian incidents, environmental crimes, wildlife crime, precious minerals substitution, metals theft, fraudulent crimes, fakes, geohazards, geotechnical engineering, engineering geology, ground searches for buried graves and other concealed items and water searches.



### Search

Ground searches for burials may be designed and implemented to locate homicide graves, mass graves related to genocide, weapons, firearms, improvised devices, explosives, drugs and items of value (e.g. stolen items, money, coinage, jewellery, etc.).

### Crime Scene Investigation

Crime scene investigations may be required to assist the police or forensic scientists at a crime scene to collect geological samples and provide specialised maps and interpretations of the soil, sediment, rocks, micro-fossils, and man-made materials.

### Geological Trace Evidence

Geological trace evidence involves analysis, interpretation, presentation and explanation of geological evidence, often at a scene of crime or from an item or object, as intelligence and as evidence. Geological trace evidence includes; rock fragments, natural soils and sediments, artificial (anthropogenic) man-made materials derived from geological raw materials (such as bricks, concrete, glass or plaster board) or micro-fossils. Trace evidence may be transferred onto the body, person or the clothing of a victim or offender or onto vehicles or objects from and to a crime scene. This, when is interpreted by an experienced forensic geologist can help with crime reconstruction and may be admissible in a court.

## Events & Collaboration

- Brazilian Federal Police and National Institute of Criminology
- Colombian Federal Police
- Russian Federal Centre for Forensic Science, Ministry of Justice, Moscow
- China and Institute of Forensic Science, Ministry of Public Security, Division of Trace Evidence Analysis
- An Garda Síochána and Independent Commission for the Location of Victims' Remains, Ireland
- Australian Federal Police



- UK Police Forces, National Crime Agency, Police National Search Centre, Home Office (CAST) & British Military
- Trace Evidence Working Group of the Asia Forensic Sciences Network Forensic Geoscience, Singapore
- Interpol General Secretariat Headquarters, Lyon, France
- National Research Institute of Police Science, Japan
- Police Scotland
- Denver Police and Police Commission, Missoula, USA
- Geological Society of London & Geological Society of America
- Abu Dhabi Police, Navy & Coast Guard
- European Geosciences Union, General Assembly
- Forensic Geoscience, Chiba, Japan
- La Guardia Civil, Alcalá de Henares, Spain,
- Australian Facility for Taphonomic Experimental Research
- The California Association of Criminalists & American Association of Trace Evidence Examiners
- Missing Persons in Argentina and Chile
- European Academy of Forensic Sciences



### IUGS-IFG Aim

The aim of the IUGS Initiative on Forensic Geology (IFG) seeks to: *'Develop forensic geology internationally and promote its applications.'*



[www.forensicgeologyinternational.org](http://www.forensicgeologyinternational.org)  
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Mbl: +44 (0) 7970 038 236

## IUGS-IFG Committee

**Chair:** Dr Laurance Donnelly

IUGS Initiative on Forensic Geology,

**Vice Chair:** Prof Rob Fitzpatrick, CSIRO, Australia

**Treasurer:** Prof Lorna Dawson

James Hutton Institute, Scotland

**Secretary:** Marianne Stam, USA

California State Justice Department, USA

**Geoforensic Law Enforcement Adviser:** Commander Mark Harrison, Australian Criminal Intelligence Commission

**FBI Adviser:** Jodi Webb

Federal Bureau of Investigation Laboratory

**Geological Trace Evidence Advisers:** Dr Skip Palenik & Dr Chris Palenik, Microtrace LLP, USA

**Crime Scene Adviser:** Prof Pier Matteo Barone

The American University of Rome, Italy

**Forensic Science Adviser:** Prof Ruth Morgan

UCL, JDI Centre for the Forensic Sciences, England

**Geoforensic International Network:** Prof Elisa Bergslien, Buffalo University, USA

**Publications:** Prof Duncan Pirrie

Helford Geoscience and University of South Wales

**Training** Dr Alastair Ruffell

Queens University, Belfast, Northern Ireland

**Communications:** Dr Jennifer McKinley

Queens University Belfast, Northern Ireland

**Web site:** Dr Brain Johnson

Queens University Belfast, Northern Ireland

**Officer USA:** Dr Bill Schneck

Microvision Northwest Forensic Consulting

**Officers Latin America:** Prof Carlos Molina Gallego (The Universidad Antonio Nariño) and Dr Fábio Augusto Da Silva Salvador (Brazilian Federal Police)

**Officer Europe:** Dr Rosa Maria Di Maggio

Geoscienze Forensi Italia, Rome

**Officer Russia & CIS:** Dr Olga Gradusva, Dr Ekaterina

Nesterina. Russian Federal Centre of Forensic Science

**Officers Middle East:** Captain Ahmed Saeed Al Kaabi

Captain Khudooma Said Al Naimi, Lieutenant Saleh Ali Al Katheeri. Abu Dhabi Police

**Officer Japan:** Dr Ritsuko Sugita

National Research Institute of Police Science, Japan

**Officer China:** Prof Guo Hongling

Institute of Forensic Science, Ministry of Public Security

**Officer Pacific:** Prof Shari Forbes

Université du Québec à Trois Rivières, Canada

**Officers Australia.** Prof Fitzpatrick and Mark Harrison

**Officer Canada:** Prof Grant Wach

Basin and Reservoir Lab, Dalhousie University,

**Officer India:** Biplob Chatterjee

Geovale Services

**Officer Africa:** Pending

## IUGS-IFG Objectives

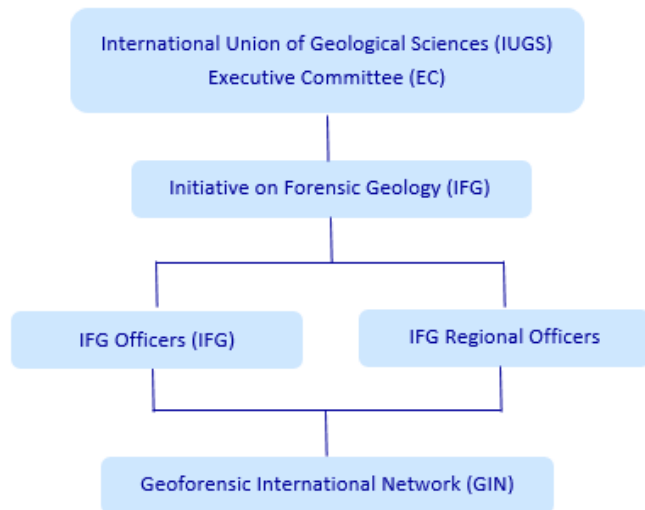
The objectives of the IUGS-IFG are to:

1. Collate and disseminate data and information on forensic geology applied to policing and law enforcement, criminal, environmental and civil investigations;
2. Promote international meetings, seminars, conferences and training;
3. Develop a 'Committee' to act as principal advisers, collaborators and active participants;
4. Develop an international network whereby each 'member' will act as a principal contact in their respective country for the collation and dissemination of information on forensic geology;
5. Collate, make available and where appropriate review any existing documentation and publications in forensic geology; and
6. Produce a document endorsed by the Committee to be called; 'A Guide to Forensic Geology'.

## IUGS-IFG Governance

The International Union of Geological Sciences (IUGS), Initiative on Forensic Geology (IFG) was launched at the 62nd Executive Committee meeting of the IUGS, at UNESCO headquarters, in Paris, France, on 22 February 2011.

The IUGS-IFG Committee comprises representatives from major geographical regions of the world and includes specialists from; academia, industry, consultancy, operationally based forensic geologists, the police, law enforcement agencies and forensic organisations.



## IUGS-IFG Approach

IUGS-IFG aims to raise the global awareness of forensic geology by holding meetings and conferences, promoting research, teaching, training and the operational deployment of forensic geologists and includes the following:

**Outreach:** This provides education and information to a range of stake holders that include; geologists, geoscientists, police officers, law enforcement organisations, the public, schools and universities, engineers, lawyers and the legal profession, forensic scientists, the media and politicians.

**Knowledge transfer and capacity building:** This raises the levels of awareness and knowledge, and provides information about forensic geology; and

**Technology transfer and training:** This provides improvement in skill sets.

**Publications:** This includes peer review papers, technical guidance, popular press articles, conference proceedings and media articles.

