



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

April 2021

A Guide to Forensic Geology

The final proof for the book '*A Guide to Forensic Geology*' was submitted to the Geological Society of London for printing and publication.

<https://www.geolsoc.org.uk/MPGFG>

Forensic Geology Lecture, Live Broadcast on YouTube

Professor Carlos Martín Molina Gallego (IUGS-IFG Co-officer for Latin America) gave a presentation, '*Geología Forense en América Latina*', which was transmitted in Spanish, live on YouTube, on 14 April 2021, at 17:00hrs Bogota (Colombia) time.

<https://www.youtube.com/watch?v=HZDzeH3XnOY>

Global Expansion of IUGS-IFG Student Chapter

The IUGS-IFG Student Chapter expanded in Colombia (Los Andes University and Industrial University of Santander), Argentina (University of Buenos Aires), Brazil (Federal University of Pelotas) and Chile (Universidad de La Frontera). Meetings have been arranged for students in India, Italy and Australia.

<https://geoforenses.com/student-chapters/>

4th British-Finnish Geoscience Initiative 2021

Dr Laurance Donnelly and Prof Duncan Pirrie represented IUGS-IFG at the 4th British-Finnish Geoscience Initiative 2021, a virtual workshop held on 12-13 April 2021. This was held in association with the Geological Survey of Finland (GTK), the British Geological Survey, the British Embassy in Helsinki and the UK Science and Innovations Network. The IUGS-IFG focus was on the tracking and tracing of minerals associated with crimes in the mining, minerals and metals industry.

https://twitter.com/gtk_fi

Women in Forensic Geology Podcast

The IUGS-IFG Student Chapter released the first episode of the, 'VestíGeo Podcast', which is a podcast developed by students aiming to promote geoforensics in Brazil. The first season was in Portuguese and future versions are proposed in English. The episode is available on Spotify:

<https://open.spotify.com/episode/1SQL3mZ8dljBbVOo4zZCDW?si=A3fgvz3TpgGwhccMfswpg>

Geoforensic Passport

The Swiss refiner, Metalor, in collaboration with the Swiss Government, Innosuisse and the University of Lausanne announced at the London Bullion Market Association (LBMA), 9th Assaying and Refining Digital Conference, the development of a, '*Geoforensic Passport*'. This database aims to verify the origin of gold doré received by refineries to ensure the gold are responsibly sourced.

<https://metallor.com/geoforensic-passport-to-validate-the-origin-of-every-gold-dore/>

D'Arcy McGee Beacon Fellowship

Professor Grant Wach (Department of Earth and Environmental Sciences, Dalhousie University, Nova Scotia, Canada and IUGS-IFG Officer for Canada) was awarded the D'Arcy McGee Beacon Fellowship by the Ireland Canada University Foundation (ICUF).

<https://www.icuf.ie/scholarships/darcy-mcgee-beacon-fellowship/>

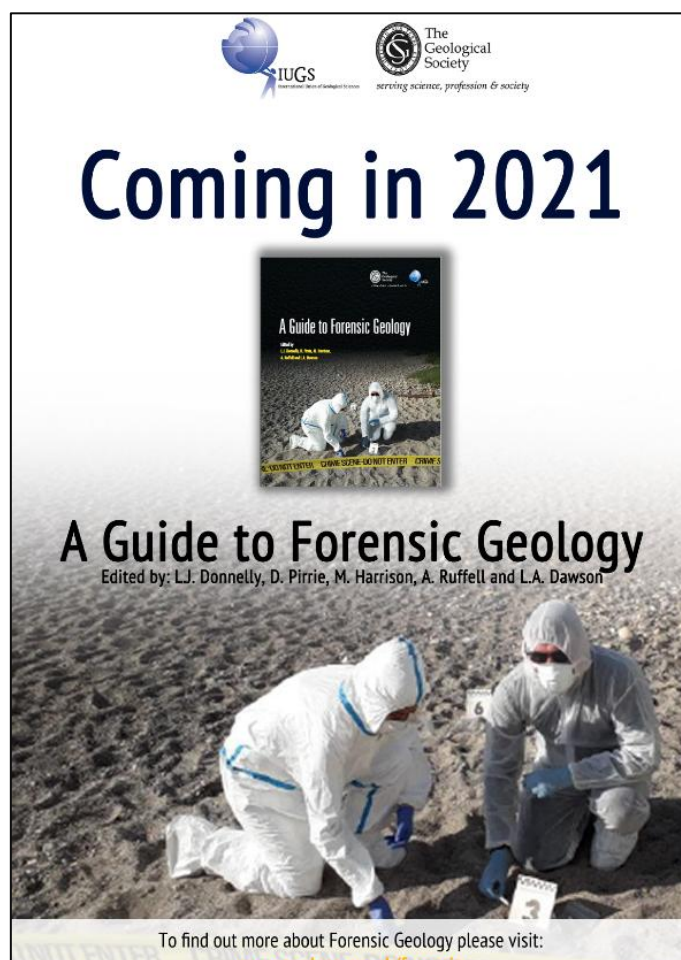
Geoforensics in Nova Scotia: Application of GPR for the study of Graveyards and Criminal Investigations

Source: Laurance Donnelly, Chair, IUGS-IFG



On April 1 2021 Professor Grant Wach gave a presentation on a Ground Penetrating Radar investigation in a Nova Scotia graveyard was presented. This demonstrated the accurate mapping of burial sites by subtracting low amplitude data, the potential to identify leachate plumes from older decaying bodies possibly linking burial age to signal depth and a more intuitive, 3D model to optimize visualization finite-element modelling in Petrel™ software (Schlumberger). Collaborative research was included with Dr Laurance Donnelly (IUGS-IFG, Chair), Dr Alastair Ruffell (IUGS-IFG Officer for Training and Queen's University Belfast) and Prof Shari Forbes (IUGS-IFG Officer for the Pacific and L 'Université du Québec à Trois-Rivières). This lecture was made possible by ICUF; the Petroleum Infrastructure Programme; the Armagh City, Banbridge and Craigavon Borough Council; Queen's University Belfast; and Dalhousie University.

<https://www.dal.ca/faculty/science/earth-environmental-sciences/news-events/2021/04/01/grant-wach-s-2nd-darcy-mcgee-beacon-lecture-geoforensics-in-nova-scotia-a-application-of-gpr-for-the-study-of-graveyards-and-criminal-investigations.html>



A Guide to Forensic Geology, published by the Geological Society of London and IUGS.



Geología Forense en América Latina
Dr. Carlos Martín Molina Gallego (Bogotá, COL)
14 de abril, 19h (Brasília) | 17h (Bogotá)
Youtube

Presentation on Forensic Geology, transmitted live on YouTube, 14 April 2021.

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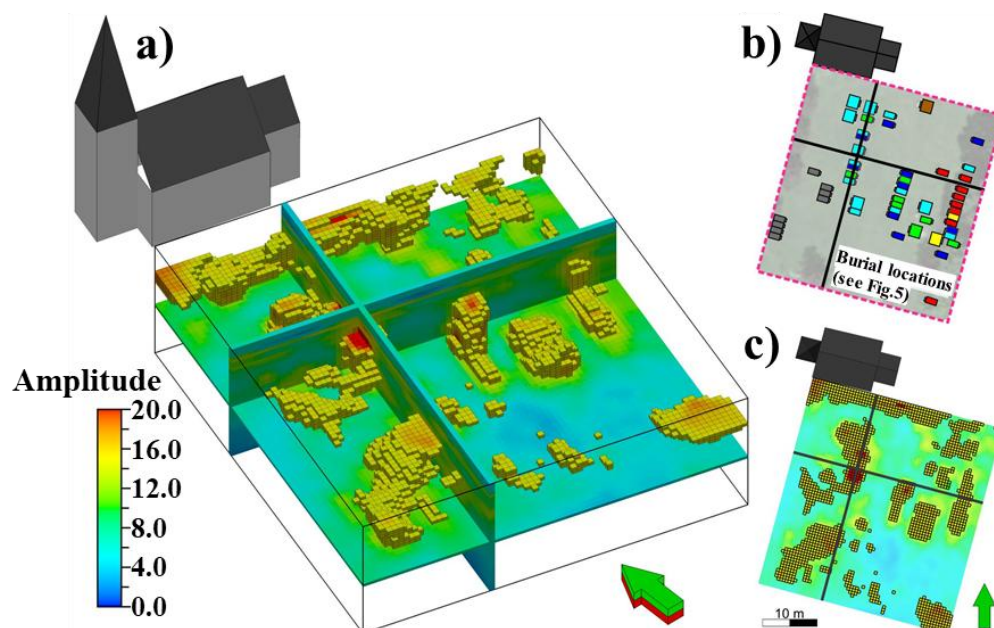

UNIL | Université de Lausanne

Press release

Metalor and the University of Lausanne unveil a ground-breaking “Geoforensic Passport” to validate the origin of every gold doré

Assessing the “DNA” of gold doré with a scientific validated tool represents a major step forward in the traceability of mined gold and to detect possible manipulations of the origin of gold doré

Announcement of the Geoforensic Passport (source: Metalor and University of Lausanne).



A 3D render of the model created from the GPR data. A transparency filter removes the lowest amplitude reflection signal and the high amplitude reflections remain, displayed as the 3D blocks. These show the shape and size of the subsurface buried objects. Adding the 2D cross-sections and depth slice provides the spatial relationships (source: Professor Grant Wach).