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Geoethics and Forensic Geology

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#International Union of Geological Sciences (IUGS) Initiative on Forensic Geology (IFG)
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Abstract: The International Union of Geological Sciences (IUGS), Initiative on Forensic Geology (IFG) was set up in 2011 to promote and develop the applications of geology to policing and law enforcement throughout the world. This includes the provision of crime scene examinations, searches to locate graves or items of interest that have been buried beneath the ground surface as part of a criminal act and geological trace analysis and evidence. Forensic geologists may assist the police and law enforcement in a range of ways including for example; homicide, sexual assaults, counter terrorism, kidnapping, humanitarian incidents, environmental crimes, precious minerals theft, fakes and fraudulent crimes. The objective of this paper is to consider the geoethical aspects of forensic geology. This includes both delivery to research and teaching, and contribution to the practical applications of forensic geology in case work. The case examples cited are based on the personal experiences of the authors. Often, the technical and scientific aspect of forensic geology investigation may be the most straightforward, after all, this is what the forensic geologist has been trained to do. The associated geoethical issues can be the most challenging and complex to manage. Generally, forensic geologists are driven to carry-out their research or case work with integrity, honesty and in a manner that is law abiding, professional, socially acceptable and highly responsible. This is necessary in advising law enforcement organisations, society and the scientific community that they represent. As the science of forensic geology begins to advance around the world it is desirable to establish a standard set of principles, values and to provide an agreed ethical a framework. But what are these core values? Who is responsible for producing these? How may these become enforced? What happens when geoethical standards are breached? This paper does not attempt to provide all of the answers, as further work is required. However, it draws attention to some of the relevant geoethical issues within forensic geology and forensic geoscience. This paper also highlights the need for the development of a set of resources; references and guidelines, standards and protocols, a code of conduct (including for example integrity, accountability, honesty, professional fairness, courtesy, trustworthiness), data sharing and information transparency, education and training, multi-disciplinary collaboration, development of research, fair debate, evaluating uncertainty and risk, regulation and accreditation, effective communication and diplomacy, attendance at crime scenes, presenting evidence in courts of law, dealing with the media and elimination of potential bias. The uptake of Forensic Geoscience brings with it considerable challenges arising from the direct and often very sensitive human interactions. By developing this ethical component to the work that the IUGS-IFG group does, combines technical approaches with sensitive solutions, and also in parallel helps define an ethical framework for forensic geoscientists' research and practice in addressing these challenges.