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Geoforensics in Italy: Education and Research Standards

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The CSI Effect suggests that the TV program and its spin-offs wildly exaggerate and glorify some forensic geosciences, burdening both the prosecution and the defense by creating greater expectations than can reasonably be met. Nowadays, when the Geosciences are involved in real forensic investigations, for search and to explore for buried targets, a precise protocol is followed (Barone et al. 2015 [1], and literature therein). Recently some geoscientific approaches to the crime scene (e.g., geophysics and geoarchaeology) were relevant not only in criminal but also civil justice cases.

On the one hand, as expert consultants or witnesses, geoscientists can greatly aid police at the crime scene or judges and juries in the courtroom by explaining technical matters in easily comprehensible terms. However, when expert testimony is based on mere conjecture, idle speculation or poor methodology, it can mislead the jury. Ideally, the settling of disputes that involve some scientific or technical information should be no different than when settling other disputes between parties. However, not all parties, including police, juries, lawyers and judges, are knowledgeable about the issues before them, particularly about geoscience and geoscientific methods. Even judges are often completely ignorant of such matters. One key issue is to educate these persons. To do this it is necessary to offer a whole package of theory and practice showing the knowledge base and the pros/cons of Geoforensics. Undergraduate, graduate and private courses are the perfect venues to teach, as best as possible, these procedures.



*investigation at
an academic test site*

On the other hand, geoforensic specialists need to improve their skills and become more expert in the field. Applied research is an essential part of their experience. Not only a methodological research, but also a theoretical one in order to better define the potential and the limitations of an approach. But this kind of research is not always possible working on real cases, therefore the employment of test sites is necessary and useful.

Figure 1: An example of a geoforensic

Moreover, the people involved in forensic cases work under stress, which increases the possibility of making a mistake during a forensic procedure. For this reason, access to a non-stressful environment,

such as fieldwork at a test site during a course, can help these people to accurately learn a geoforensic protocol in order to be able to successfully replicate it in a real case without doubt or uncertainty. This poster will show various ways in which geoscientific investigations can help increase forensic knowledge at different levels, from the classroom to the courtroom.

References:

[1] Barone PM et al. (2015) Int J Arch 3(1-1): 45-56. doi:10.11648/j.ija.s.2015030101.16

