Geophysical Research Abstracts,
Vol. 11, EGU2009-6538, 2009
EGU General Assembly 2009


# "Who dun it?" Engagement and Problem-Solving in the Earth Sciences Through Forensic Approaches

A. M. OḂeirne-Ryan
Dalhousie University, Earth Sciences, Halifax, Canada (amryan@dal.ca)

Expert geologists have the ability to make observations, see patterns, and keep spatial and temporal aspects in perspective as they move towards interpretation and greater understanding of the complex and incomplete systems nature presents to us. In our constant quest for understanding and new knowledge, as experts, we approach our discipline much like a forensics expert approaches the scene of a crime. Can we use the modern day popularity of forensic approaches to encourage students to delve more deeply into the way geology works? Can forensics encourage students to look with new eyes as they work through cases that require a variety of thinking and analytical skills? It can be argued that whereas we may be cognizant of the need for students to develop critical thinking, forensic approaches not only advance such critical and analytical thinking skills, they encourage divergent and creative thinking as well, thinking that serves to move scientific thought forward. Indeed, forensic approaches not only advance studentsǵeologic thinking facility, they also provide for novel and exciting ways to present the content - a puzzle to be solved, a mystery to unpack. Even in the first class, we can set up a scenario that requires students to use their novice geologic knowledge and think "outside the box" as they use detective techniques to track us down, for example. In our teaching, we can use forensic approaches as readily in the lecture hall, the laboratory, and the field, limited only by our creativity and willingness to "move outside the box".