



B34 Our Future Reflects Our Past: The Evolution of Criminalistics

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After attending this presentation, attendees will gain deeper knowledge and insight on the evolution of the practice of criminalistics from the perspectives of experienced and knowledgeable forensic scientists. This presentation will engage attendees in discussions regarding the current state of criminalistics. Experienced forensic scientists on the panel will share their views of the past development of criminalistics, their views on current practices, and their visions for the future evolution of this field.

This presentation will impact the forensic science community by increasing awareness of present issues in the field that developed from the past and by offering insights into possible tracks that may lead to the future evolution of criminalistics.

Criminalistics has evolved on many fronts, resulting in an increase in the demand for its services, in the number and size of forensic laboratories, and also in the number of academic programs offering undergraduate and graduate degrees in forensic science. Efforts in the area of laboratory accreditation, expert certification, and proficiency testing have contributed to improving the quality of the analytical work being conducted. These, along with continuing technological advances, are obviously perceived as positive developments. The services delivered have progressed from microscopical comparisons of trace evidence items, through application of advancements in science, such as wet chemistry analytical and serological techniques, to sophisticated instrumental and digital analyses, which allow for greater and greater sensitivity and specificity. The result has been a massive increase in the reliability of the results presented to the criminal justice system. The introduction of DNA and the related developments has been the paradigm shift in this era. What is the future of criminalistics? Who does define the path of criminalistics — criminalists themselves or outsiders from the field? How can one learn from the past of criminalistics to define its future?

Criminalistics was seen as multifaceted by pioneers at the turn of the 20th century. The focus was on tiny details, trace materials that could provide clues to a hidden and uncertain past, otherwise inaccessible. As highlighted by the historian Carlo Ginzburg, who noticed the change of paradigm that occurred with Freud's psychoanalysis, Morelli's art studies ... and Sherlock Holmes, a philosophical and historical movement was underpinning the views of pioneers who saw the perspectives offered and opened by the study of "signs." Whereas some, like the Austrian magistrate Hans Gross, saw the tactical aspects offered in the form of an investigative science (which he incidentally called "criminalistics") as well as the value of these signs in the form of evidence, others, such as Alphonse Bertillon, saw their value in classifying, identifying, and creating databases, leading to police files, or Edmond Locard and later Paul Kirk, as a form of clinical science with laboratory support. These categories were not rigid; even if they reflected each pioneer's background, knowledge, and vision. During the 20th century, this



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was taken up by practitioners with little vision or power to develop the astonishing potential of this new “science” and it is only now that science is reclaiming its ground over test providers and other administrative organizations to offer new perspectives in detecting crime phenomena through detection, intelligence, and databasing (strategic and tactical dimension), as well as support for evidential purposes. The future, in that perspective, may not be what law enforcement administrators want or what the legal profession perceives. Currently, isn’t the forensic laboratory conceptualized as a mere testing facility focusing exclusively on associative evidence problems rather than more general scientific problem-solving with the total physical evidence record? Isn’t there too much emphasis on the question of “who” being addressed? Wouldn’t notions such as transfer, persistence, and alterations coupled with an appreciation of background, contamination, and preservation of the recovered trace materials be needed for the evaluation of the significance of findings?

This special session will engage attendees in discussions regarding the current state of criminalistics.

Foundations, History, Current Practice