

Regional

Forensics far more than what's seen on TV

Forensics has always been a common subject in popular culture. From the Sherlock Holmes stories to today's TV shows and Hollywood movies, the idea of deciphering criminal mysteries through science has captivated people's imaginations. Forensics has also been controversial in the legal arena, with some cases relying on forensic evidence being appealed all the way to the U.S. Supreme Court. So what's the reality of forensics? Or is it that the myth has become so fascinating that it is not allowing us to see the reality?

To discuss this subject for a special edition of the radio show "Segue," we gathered a panel of experts with extensive experience on the subject of forensics. They were Jennifer Rehg, associate professor and chair of the department of anthropology at Southern Illinois University Edwardsville, where she teaches forensic anthropology. Rehg was joined by Luci Kohn, associate professor in the department of biological sciences at SIUE, where she teaches forensic biology; Stephen Avedisian, laboratory director of the Division of Forensic Services of the Illinois State Police; and Brad Reed, professor of accounting at SIUE who is an expert on forensic accounting. And this panel represents just a small portion of all the types of forensics.

"Forensics ultimately is really about the application of different methodologies to potential criminal or legal issues," explained Rehg. "So you can have all different kinds of specializations, including people who specialize in document analysis, accounting, DNA analysis or ballistics, and if those methods or techniques are applied to addressing questions that are in the legal realm, then they can be considered forensics. So, in that sense, almost anything could be forensics if it's applied in the appropriate contexts."

A key element in modern forensics is the ability to analyze and interpret DNA. Data provided by this substance has even corrected serious judicial mistakes made in the past.

"DNA analysis is one of the areas that has been held up as much less fraught with errors than many other areas," said Kohn, "although, the ability of people to understand the analysis is also an issue." With the increasing specialization has come increas-



Dolphin remains found on a Venezuelan beach that, after being examined using forensic techniques, showed that they were killed to use their meat as bait.

ing interdisciplinary approaches at gathering and making sense of evidence from crime scenes, a reality that Avedisian knows first hand from his own experience managing forensic teams.

"We specifically look for people with a scientific background," said Avedisian. "Then, with those science degrees, they are specifically trained in a specific field such as drug chemistry or biology DNA, something along those lines. The individual would go through

extensive training, usually from one to three years in a specific field, learning everything from analyzing evidence all the way to how to present testimony in court."

Some of the most interesting stories about forensics are not coming from the movies or TV, but from corporations. One area of forensics that is little mentioned, but which has become increasingly important in these financial times is forensics accounting, particularly because of recent financial crimes.

Yet, some people are not clear what's the difference between experts in that area and auditors.

"Companies as ordinarily audited, even when there is no suspicion that anything is wrong," explained Reed. "They have to be audited so that the investors have some credence that their financial statements are truthful. We tend to use the term forensic accounting more if somebody has a strong suspicion or perhaps even some proof that a

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fraud has occurred. Then they want to bring in a forensic accountant to find out exactly how much money was stolen or how it was done, and perhaps to undertake some efforts to try to recover the assets if they have been transferred to other locations."

"If a corporation that has an employee or group of employees who are suspected of stealing assets of the business, the company calls the police to come and investigate," Reed said. "But many times companies, rather than going to the police first, want to maintain some control over the investigation. Once it goes to the police it becomes public, and they want to maintain the reputation of the company."

He added that companies oftentimes independently hire forensic accountants to come in and investigate the crime and to gather the evidence. "The accountants then would spend a lot of time making sure that when they gather the evidence, they do it in a way that it could later be used in a criminal prosecution if a company chooses to do so."

All this excitement about forensics has resulted in an increasing number of students getting into this field. But that does not mean that it will be easy to pursue it as a career. All panelists agreed that it is a very competitive field, but they also agreed that as a career, forensics has real traction, not only in people's imaginations but also in terms of real job market potential. Today there are about 280 forensic scientists in the state of Illinois who work in seven different labs, according to Avedisian. According to the Bureau of Labor Statistics, a 19 percent growth in jobs in the forensic sciences is expected in the United States in the next several years. That's a high level of growth for any job field.

Aldemaro Romero is the Dean of the College of Arts and Sciences at Southern Illinois University Edwardsville. His show, "Segue," can be heard every Sunday morning at 9 a.m. on WSIE, 88.7 FM. He can be reached at College_Arts_Sciences@siue.edu.

Photo courtesy of Aldemaro Romero