

Gail Anderson

SFU's World-Class Centre for Forensic Research

A leader in forensic research long before it became popularized on television, Simon Fraser University was one of the first universities in North America to offer forensic services to the police.

In the 1970s, entomologists Dr. John Borden and Professor Thelma Finlayson were consulted by police in regard to using insects to estimate elapsed time since death in several homicide investigations. In 1976, physical anthropologist Dr. Mark Skinner was consulted by the police in his capacity as forensic anthropologist and, in 1978, he consulted Professor Finlayson on a case that included insect evidence. Professor Finlayson identified Tabanidae [horse fly] eggs that had overwintered on the body.

Her analysis suggested the body had come from the Fraser River, which was nearly a mile from where the remains had been recovered—indicating the body had been moved, most likely by scavengers. This was the start of a collaboration between forensic entomology and forensic anthropology that has recently culminated in the establishment of the Centre for Forensic Research (CFR) at Simon Fraser University.

Situated in the new Arts and Social Sciences building (ASSC1), custom-built for the CFR, the Centre links the School of Criminology and the Department of Archaeology. The only such facility in Canada and the first of its kind in the world, it brings together forensic researchers locally, nationally, and internationally. The CFR received Senate approval on July 9, 2007.

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The facility houses laboratories for forensic entomology, osteology, DNA, mass spectrometry, and trace element analysis, as well as a scanning electron-imaging suite, a radiography suite, and an autopsy suite.

The CFR contains the laboratory suites of Dr. Lynne Bell, forensic anthropologist and bone-density specialist; Dr. Gail Anderson, forensic entomologist; Dr. Mark Skinner, forensic anthropologist; and Dr. Dongya Yang, specialist in ancient and degraded DNA.

A range of master's and PhD students and postdoctoral fellows carry on research in the laboratory suites.



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Drs. Bell and Anderson are housed in the School of Criminology and Drs. Skinner and Yang in Archaeology. The laboratory of forensic botanist Dr. Rolf Mathewes remains in Biological Sciences.

The CFR is primarily a research facility for individual and collaborative projects in a variety of forensic sciences, particularly forensic anthropology, archaeology, entomology, isotopy, taphonomy, botany, electron-imaging, molecular biology, and remote sensing.



Lynne Bell working on a case

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Those areas are vital in police investigations but, because they are very research-intensive, they are not included in police laboratories. The CFR does not do analyses routinely found in police labs but instead concentrates on areas outside that domain, such as entomology, botany, and osteology or on scientific analyses of extremely degraded DNA and mass spectrometry.

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for the police and coroners service, focusing on active cases as well as the analyses of cold cases. For instance, two members of the CFR (Skinner

and Anderson) were involved in the so-called Pig Farm Case presently in court; Anderson was recently involved in the re-analysis of the 1959 Steven Truscott case.

The CFR scientists are involved in national and international collaborations and work on cases ranging from individual homicides to genocide. The development of such a facility is clearly timely because a range of collaborative expertise is required to investigate homicides and mass disasters such as the South Asian Tsunami, Hurricane