



More than Just Science: Forensics in Action

Part detectives, part storytellers, forensic experts are gifted in the art of using their expertise to recreate the circumstances of a fire or other damage that sparks an insurance claim.

"Forensic experts are trained to look at a pile of rubble, sift through it and read what information it contains. For example, after a fire that had no witnesses, all you're left with is a charred building and piles of debris. The forensic expert must interpret fire patterns on walls and read the physical evidence as if it were a witness statement leading them to the origin and cause of the fire," said George Costandi, Development and Marketing Manager at Origin and Cause, Canada's largest consulting, engineering and fire investigation firm.

Forensic science in action

Whether it's residential, commercial or industrial—any type of insurance claim often relies on a forensic opinion to confirm or deny coverage, or simply to pursue recovery opportunities. "Bodily injury claims are amongst the most dynamic and interesting types of claims we get involved in

investigating. As an example, if a patron slips and falls in a grocery store and submits a claim, the file could potentially use a forensic expert's technical opinion. The grocery store needs representation as well as the person that fell," said Costandi.

"Both parties come together and investigate what took place. They would need to verify where they fell, how they fell and why. Is it because someone had recently mopped floors and didn't put up proper signage? Was it because someone had spilled soap detergent on the ground right before the incident? Were the floor tiles installed incorrectly, causing a tripping hazard? Was the injured negligent? Were their shoes broken or was there a faulty design in their high heels? So many factors and variables go into the most basic and typical investigation."

He notes that it's not the forensic expert's responsibility to determine who is liable after their investigations. After interpreting physical evidence to explain the origin and the cause of an incident, a forensic expert relays information to their clients who apply the technical opinion to policy wordings to continue administering a claim.

Forensic disciplines are varied

Origin and Cause employs experts in several disciplines, including fire and explosion investigation and engineering disciplines such as structural, material and metallurgical, chemical, electrical and mechanical.

“Origin and Cause employs experts in several disciplines...Many claims become a collaborative effort with multiple experts involved.”

Many claims become a collaborative effort with multiple experts involved. In the case of a fire, a fire and explosion expert may narrow in on the cause of fire in an electrical receptacle. From there, an electrical engineer would complete an evaluation of the building’s wiring and take the receptacle to the lab to verify if it was in fact the cause of the incident.

Incidentally, some of the most popular members of the fire and explosion department are in the canine unit. Costandi says they have several dogs trained to detect certain chemicals and substances but the one who gets the most work is Smoke, who specializes in accelerant detection.

If a forensic expert has determined that further investigation is required at the site of a fire, Smoke and his ball—which has been sprayed with a number of fire accelerant scents—are called in. After he sniffs the ball, Smoke’s handlers will pretend to throw it on the site. The expert dog then goes searching for his ball, sniffing for the accelerant scents he knows so well.

Trends in claims

Costandi says the types of cases that cross the desks of their experts are truly varied, but there are patterns that bring requests for similar investigations across the country. Recent trends include:

- Structural damage due to shoddy construction in residential and commercial buildings (Expert department: structural engineering)
- Damage caused by faulty products, including cell phone batteries and kitchen appliances (Expert department: electrical engineering)
- Braided hoses failing due to faulty design and installation and causing significant water damage in homes (Expert department: material and metallurgical engineering)
- An influx of chemical-related personal injuries related to more complicated ingredients in products like soaps and cleaners (Expert department: chemical engineering)

- Failures in appliances like washing machines and dryers for which parts are manufactured all over the world and may not meet Canadian testing standards (Expert department: electrical and mechanical engineering)

Advice for insurance professionals

When it comes to engaging forensic experts, Costandi says it’s critical to do it early. “Evidence can be contaminated, which means you won’t have a reliable framework to determine whether there’s coverage or you may lose an opportunity to subrogate.”

This need for expediency extends to reporting as well. Costandi advises pushing for quick processing of reports. “From the time we receive a notice of a loss, we try to get on-site within hours and then from the time we’re on-scene to the time we give an update to client is within 24 hours.”

It’s also important to hire the right expert. He warns against engaging forensic experts who don’t distinguish their specialties. “A lot of folks may be able to give you a report that can help you determine coverage and proceed with administering a claim, but it’s important that the report is watertight.

“If the loss goes to court and the judge agrees with the opposing forensic expert’s opinion, that often times represents a big wasted opportunity to have recovered the cost of your claim—all because you chose an expert with too broad of a specialty.”

Stay informed

Origin and Cause has a robust consumer and industry education arm, which includes a monthly newsletter and blog. Recent posts include: Ground vibration damage on the rise, Flooding the market: Faulty flexible water supply lines and The new Canadian housing crisis: shoddy home renovations.

For professionals in the industry, Origin and Cause runs a series of continuing education training sessions. “We do about four webinars a year, training well over 1,000 insurance professionals.”

For more information about forensic science and Origin and Cause’s upcoming training sessions, visit origin-and-cause.com.