



A Day in the Life of a Forensic Dentist by Dr Roger Metcalf

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I did not set out to be a forensic dentist. When I graduated from dental school and joined the local dental society last century, we were randomly assigned to be on a committee—and I just happened to

wind up on the unfortunately-named “dental disaster squad.” That team was established in conjunction with the ME’s office in the event that a plane crash occurred at the then-new Dallas-Fort Worth International Airport (DFW). It was not long before we were called to action—in 1985 we had the Delta 191 incident, and in 1988 we had the Delta 1141 incident at DFW, and then in 1993 we had the victims of the Branch Davidian/David Koresh incident from near Waco, Texas, who were brought to our office. Our dental team became very experienced in a relatively short period of time.

I practiced general dentistry in my own solo office for 27 years until my forensic mentor retired from working at the ME’s office, and then I transitioned into full-time employment as a county employee. I came to London and took the diploma class in Forensic Human Identification offered by the Academy of Forensic Medical Sciences that was presented at St. Bart’s, and then sat for the rigorous exam that was, at that time, administered under the auspices of FF&LM. It was a difficult exam, but, actually, law school had prepared me well, and I proudly earned my Dip-FHID in 2012.

On a typical day, I would arrive at the ME’s office at about 7:30 a.m. My lead fingerprint analyst and I would go over the cases for the day—she would usually arrive earlier at about 6:30 to get started—and we would assess any “unidentified” cases that had arrived overnight. I would then attend our regularly scheduled Morning Conference with the Forensic Pathologists and the Morgue Director, and we would discuss all the cases

scheduled to be examined and autopsied that day, and plan our work schedule for the day. Then, off to the morgue.

If our unidentified cases were in suitable condition, we would take post-mortem fingerprints—about 90% of our cases were resolved by fingerprint analysis and comparison—and I took fingerprints on literally thousands of decedents. I was not a fingerprint analyst, by any means, but I could take a set of post-mortem prints with the best of ‘em! We also would have to occasionally “deglove” the fingers of a decomposed individual to take their prints, and we used Mikrosil (a forensic product what was just like a vinyl polysiloxane dental impression material) to take prints occasionally, and sometimes we simply photographed the prints. If the decedent was not suitable for fingerprinting, then we would start thinking about trying to locate dental records or medical radiographs. But to do so we would need to have a tentative identity to go on—that’s an advantage of fingerprints with the I-AFIS system we used...one doesn’t have known anything about the decedent—just take their prints and scan them into the computer and you may get a “hit.” But for dental or medical records we would have to locate family or friends of our putative deceased, and hope that they might know where the subject would have gone to the dentist for treatment or where they may have visited a hospital for imaging. Then we would have to locate the dentist or hospital, and hope that they actually did have records on the subject—and that the records were available—some institutions purge their files after a certain period of time. I would perform a dental exam and make a set of dental radiographs of the decedent just as I would for any other “patient” and then, if we could locate antemortem records, compare the two. Because I “speak dentist” I would contact dental offices myself rather than having one of our investigators do so, and I would also contact hospitals to request antemortem medical radiographs, if



those had been located. If we had medical radiographs for comparison, then either the forensic anthropologist in my lab or one of the Medical Examiners would evaluate those. Our morgue technicians had a conventional large flat plate radiography system, plus we also had a Lodox full-body radiography system for post-mortem imaging.

We also would occasionally have other means of ID—I explanted many cardiac pacemakers, nerve stimulators, insulin pumps, and so forth to recover the device serial number. I also had to occasionally remove surgical hardware such as hip or knee implants to recover serial numbers. I became very friendly with the patient register folks at a number of medical device manufacturers, and they were very helpful to us in getting our UHR identified. We also had the occasional decedent with an ankle monitor that had been placed by law enforcement when the deceased was released from custody on probation, etc , and those were quite helpful to us, as well.

So, I generally spent the morning in the morgue, and then in the afternoon I would try to locate families or friends of the putative decedent, follow up on leads, try to locate records, and write reports. At our office we had access to a number of confidential databases that were vital in locating next-of-kin and other pertinent information.

We did use DNA for a small number of cases, but, by state statute, we sent those to another facility for processing. DNA was not our first choice of ID method because it would take some time to get the analyses back--sometimes months—and DNA is still relatively expensive method. Genetic genealogy was just becoming well-known at the time I retired, but, IMHO, it will not be a mainstream method of forensic ID because it is very labour-intensive for the analyst, and takes a long time to achieve results—however, this method is certainly very useful for old, cold cases, just not for the day-to-day “routine” cases we have.

We had an excellent department and, most years, I am very proud to say, we were able to ID every decedent presented to our office. In the 25 years my mentor was there before me and the 16 years I was at the office, we never

had a known mis-identification by fingerprints or dental records (but our anthropologist had two miscalls that, fortunately, were resolved quickly).

Forensic dentistry (aka forensic odontology) is not really a career choice—forensic dentists typically also practice clinical dentistry or are in academia as their “day job,” and practice odontology as a part-time pursuit. There are very few individuals who are in a position to actually make a living exclusively in this discipline. I was very, very—extremely--fortunate to have one of the very rare full-time jobs for a forensic dentist in the US. Our Chief Medical Examiner was very supportive of our Lab, and the Dip-FHID credential was vital to my job--I don't believe there is another credential similar to it that is offered anywhere else. But, alas, just after I retired a new Chief Medical Examiner was appointed, and he restructured the office organization. The Human ID Lab that I ran no longer exists.