

## **GSR in the Robert Blake Case - *Lessons Learned*. Steven Dowell.**

*Transcript of a talk by Mr. Steve Dowell presented at the Scanning 2005 meeting in Monterey, California, April 6, 2005. Moderated by Frank Platek. Recorded and transcribed by Bryan Burnett. Recording available upon request: Bryan Burnett 760 634-5939, bryan@meixatech.com.*

The Blake trial ended a few weeks ago in an acquittal. I thought I would just go over some of what happened in that trial and go over the overall story. Talk about what was analyzed, what the GSR [gunshot residue] collection issues were, some of the GSR results and something of what happened in trial testimony and a little bit about what I learned from this case.

This is the story: Mr. Blake and his wife go to dinner on the evening that she was shot, after dinner, they leave the restaurant about 9:00 or so. He walks her back to the car. The car is interestingly parked some distance from the restaurant. It is not just in the parking lot – it is some distance on a side street. He could have parked closer. He takes her to the car and the story is that he left something in the restaurant. Most namely his hand gun – he left his .38 caliber revolver, supposedly in the restaurant and he goes back to the restaurant allegedly to pick up his revolver. Goes back to the car and observes her shot in the front seat of the car. She is shot twice – right to left on the cheek and the shoulder and forward to back. He then make a commotional, a neighbor comes out and calls 911. Blake in the interim is going through a number of motions with his hands. He is on a grass lawn he is observed – there is actually a picture of him – importantly wiping the palms of his hands on the grass surface that he is sitting on. He is rolling around on the grass– he is putting on a pretty good show.

The GSR samples – and Ms Bakley, his wife, Bonny Bakley, is transported to the hospital She is dead-on-arrival. She is sampled [for GSR] about the next morning, but sometime after midnight the body is [not discernable] transported to the [LA] Coroners Office. It is not clear whether she is sampled at the hospital or at the Coroners Office. But, anyway her hands get sampled and Mr. Blake is sampled right around midnight – so he has had three hours of unrestrained hand activity and general activity by the time his hands get sampled. You know, there have been some comments made in the last couple of days about when to collect gunshot residue. I don't think in any high-profile case with a gunshot shot wound where there is gunshot residue evidence is likely to be present somewhere another that you are not going to have to present gunshot residue evidence in the case. We will go into a little bit the “CSI effect” which I think is pretty significant in this case. So, [unintelligible] we did analyze the hand samples from both Mr. Blake and Bonny Bakley. We did do some sampling on the clothing of Mr. Blake and it became important in this case to sample the detectives' hands and because of a collection issue, a trunk reenactment about Blake's clothing was necessary. So, I will go into some of the details about all these different things.

So, again, he had this uncontrolled hand activity prior to collection. Mr. Blake was not actually considered a suspect until the following morning. He was allowed to go home, and do whatever he did. The detectives returned to his house the following morning and about 10 o'clock in the morning they collected some of his clothing – allegedly the clothing he was wearing the night before and the detective that collected that clothing, his hands were unprotected at time of that collection.. So, [there is] the issue of his possible contamination prior to the clothing collection. The clothing wasn't individually packaged but placed in a cardboard box and put into the [trunk] of a detective's patrol car and allowed to remain in that trunk over the weekend. It wasn't removed from that trunk until Monday morning at the crime lab where it was then individually packaged. So, there became a need to address those different issues. The possible contamination of the officer that physically touched the clothing, that collected the clothing and what might have happened to the clothing in terms of gunshot residue after it spent the weekend in the trunk. So, again [we needed] to address what was talked about a number of times today and yesterday is the general law enforcement environment of contamination. This is a very important issue today. In California, in particular, the defense community is well aware of the study from Orange County and other studies that indicated or alluded to including ours which has been presented, but not actually published. The defense community is well aware of the possible contamination of the law enforcement environment. I think what we have seen in the talks is the focus that has been given to more studies about that environment. Even though there has been enormous amount of variability that still need to do some work in that area gather some numbers and maybe address that issue a little bit better.

The results.

Bonny Bakley. She has got a several “highly specific” and again we call them “highly specific particles” These used to be called “unique” and we do not use the word “characteristic” we use the word “consistent” [referring to displayed graphic of the Bakely GSR]. But that is probably pretty understandable from the direction of the shot and where she was sitting and where her hand position might have been and the fact that she gets transported to the hospital and her hand may have been touched to some degree after that.

Mr. Blake, whose hands were sample some three hours after the event, ... had uncontrolled activity on his hands. He had two consistent particles on the right and three consistent particles on the left. We report consistent particles in this case; these basically are lead only particles. We do report lead-only particles with all the caveats about the availability of lead particles from sources other than gunshot residue. I sampled his clothing and the way I sample clothing that is normally packaged in the usual fashion is clothing is folded up and put into paper bags or wrapped in paper. So, from our perspective there is no reason to take a sample from the right leg and one from the leg because of cross contamination of touching surfaces. What we do, what I do, is collect a “survey” sample we just take multiple dabs from all over the item – inside, outside from right/left pockets, everywhere. And simply look at that result and say somewhere on this garment there might be particles. So, from the clothing there is one high specific particle on the boot and one from the jeans and there are one to several consistent particles of gunshot residue on other items including some socks and a t-shirt.

There are two detectives involved in the evidence collection [unintelligible] and those detectives were sampled without their knowing that they were going to be sampled. They came to our lab to either collect or deposit some of his clothing. We simply asked them at the point if we could sample their hands. And ask about their activity up to that point we sampled them - just to see whether or not – how they reported their activity – they all wear firearms but what do they do with their firearms. So, detective A, we found one consistent particle and on the detective [B] that actually collected Mr. Blake’s clothing and put it in a cardboard box, we found no particles of gunshot residue on the particular morning that we collected that sample.

I’ll go backwards just a second [ref. PowerPoint display]. ... What we did with the trunk recreation – we did a recreation. We asked the detectives to get the same patrol car, get a cardboard box like the one they put his clothing in. We got them to buy a clean cotton t-shirt. We asked them to put the cotton t-shirt in the box, put it in the trunk on the same car and let it go over the weekend. We sampled the item of clothing the way we sampled the other items of clothing. Now, I was asked about that reconstruction, the design of that reconstruction and got criticized for not collecting one sample – we collected a number of samples from the box – the outside of the box - different areas on the inside of the trunk . [NOTE: This is not what was reported by Mr. Dowell in the case, see Fig. 19]. Because of our other experience with other law-enforcement vehicles, we know that the backseats can be quite [unintelligible] with

gunshot residue. So, we suspected that the trunk would not be any different. Although the shirt itself was negative for any gunshot residue particles, there were some particles on the trunk lid, not directly over the area where the t-shirt was. They criticized me for not taking a sample from the inside of the cardboard box [Note: the inside of the box was sampled, see Fig. 19]. And at the time I said, “well, I did not have a really good reason why I did not sample the inside of the cardboard box.” However, any kind of these designs we could have collected thousands of samples from the trunk. The idea was in the simplest form could we replaced [with] a similar garment under similar conditions, do we get any gunshot residue? [unintelligible] ... anyway that is the best we could do. So what we did was we anticipated these defense issues and tried to collect some data to do a responsible job in looking at what that contribution might have been.

There was a preliminary trial and in that preliminary trial there was testimony given by both myself as a gunshot residue expert and one gunshot residue expert from LAPD Crime Lab. We testified consistently about the possibility in this case all of the gunshot residue coming from the fact that he admittedly was carrying a handgun and handled that handgun. He was also a firearms collector and his house – he had firearms in his house. So, we simply said there isn’t any way, considering the circumstances, for us to separate out where those particles might have come from. Could he have shot his wife? Yes. Could this have come from somewhere else? Yes. It could have come from his handling of the firearm.

The trial, for the prosecution, there were three gunshot residue experts that testified. Debra Kowal testified to the Bonny Bakley’s results, because she did those results. I testified to the clothing and the trunk reconstruction results

and Colin Yamauchi from the LAPD Lab testified to some additional work that they did on the initial clothing on Mr. Blake. And there was one person who testified for the defense.

I was not surprised, but I was little surprise at the attack on our gunshot residue results because the prelim and during the direct testimony I offer up [a] very good range of possibilities as to why Mr. Blake might have might have gunshot residue on his hands and his clothing. But that didn't seem to be good enough for the defense they were going to go after a lot of picking apart of the results. They went after a lot of consistent particles – were they really consistent particles? As our last speaker just found out the morphology of gunshot residue particles, [also] from my experience would be all over the place. I think people really need to go back and review the Aerospace Report [ Wolten, et al., 1977] to understand that they did that report based on about 142 samples that they analyzed without a backscatter detector. So their strategy or bias, that divided their word, made life easy for them was to look for only round particles. Because if they had to look at all the particle would have made life a really difficult challenge. I am fortunately old enough to have and to have gunshot residue long enough to have actually talked to those people on a regular basis way back in 1980 to both Ron Nesbitt who actually did the work and Peter Jones who was one of the consultants and the scientists. ...and I actually testified

with Peter Jones once before. I understand where that initial understanding came from. ... [unintelligible] ... I mean, we all feel good about finding nice round particles, but I can assure you that there are a lot of gunshot residue particles out there I think that are not round and need to be considered as really gunshot reside particles. So the defense picked apart a lot of the consistent particles ... not only that, my feeling on the clothing is we have some understanding of the history of the loss of gunshot residue particles on hand samples, because of things we do to our hands. I think on clothing, I accept a longer history of particles ... what I am saying if I see a consistent particle, I am saying ... [unintelligible]... within a population of particles that on a hand sample you might want to consistent particles on an item of clothing that I am saying – all I am saying is – that there are subsets of this population that can't be excluded as gunshot residue particles and if they are consistent particles I am willing to give them up anyway – so it is pretty weak position, but I do feel responsible for reporting what it is I see. If there are differences in interpretation, then that's fine.

Two things that I thought were a little unusual in the defense [presentation]. The defense offered up two items – One is that they offered up test fire results without a real explanation about ... as if that is what you would expect on a hand sample in a live individual. And they reported that by using ... are any of you familiar with the formula that is given on page 50-52 of the Aerospace Report that looks at the number of particles versus time. So, they did a loss analysis? They [the defense] actually testified that based on the number of particles they found on test firing for the suspect weapon that they would have expected 97 or 98 particles to be on the hand of Mr. Blake at the interval for which he was sampled after the time of the shooting. So, that was a pretty precise a finding. ... [unintelligible]. We see here basic data that finding of a few particle on live individuals after even short time is pretty much an average picture that you can see. I have seen cases where there were lots of particles but the average number of particle density of live people is pretty small. [The second “thing ... offered up” was not presented.]

I think what we have learned in this case was a couple of things. One is ... talking to the jury after the verdict this is some of what they found. Seven of the twelve jurors watched CSI and they expected the trial to be more CSI-like. That's significant. If gunshot residue ... [unintelligible] ... where we can't come up with a precise number, a statistical number of what we expect and the expectation is that all science ought to be DNA-like in its ability to have these probability numbers. Then we are up against ... this may be just the tip of an iceberg where juries are... having an expectation for all sorts of physical data – physical evidence – that has so much variability that you can't get too high probability numbers or confident probability number. We may be up against this kind of verdict for trials or else Los Angeles is becoming the center for ... if you want to kill your wife come to Los Angeles County and do it there. You're likely to be acquitted. Debra [Kowal and I] have been talking about this one way or another since the verdict. We don't have an investment in the verdict, per se. But it is interesting because we testify a lot ... to understand what people are looking for ... not to testify to their expectations but to at least address their expectations. Debra [Kowal] came up with the phrase ... see would like to use the phrase in certain responses, to say ... “unlike what you have seen on CSI, this result is like this...” So, that it addresses that expectation and perhaps positions that expectation more towards the reality of what's possible in this world. I think in the Journal of Forensic Science, this month, there is an article that goes after the reanalysis of some the FBI bullet data. On page 350, the last paragraph of that, those people talk about the statistical probability in the systems that have the kind of variable that GSR had and they are not sure without adequate databases – and I do not know that SLICE might not

be able to address some of this some of this some particular way. Without significant databases, or in systems that have so much variability that you are not going to be able to come to those precise conclusions. What are you going to do? That is kind of it. Its bound to happen again – we have another case coming up for trial in Los Angeles County - the Phil Specter Case. Another gunshot wound case with GSR all over the place and that is coming up for trial soon. It will be interesting to see what is going to happen in that trial.

I just wanted to say, again, we have seen talks on precision and is your instrument performing correctly this that and the other thing. Its still the ability or still the challenge is to take that data into court and present it in a way that says what it is you found and you're able to translate that understanding to the jury. I just thought of a phrase after the carbon tape thing today ... [reference to an earlier talk at Scanning 2005 - off topic—portion redacted]. [End of Formal Talk.]

QUESTIONS –

- 1) **After the defense presented their case using that Aerospace formula, how was the cross examination presented ... [unintelligible]?** Dowell: Good question. The question is, how did the prosecution respond to that and did they have any rebuttal witnesses? The prosecution – I thought that she did really well in asking the defense expert, “how many other times did she use this formula?” And she said, “This was the third time ...” So, in two other cases she had used this formula. The prosecution then asked, “did the formula work in those cases?” And the answer was “no.” But, I think the damage had already been done in a way. I don't know what the jury was supposed to do with that – I don't know – I think it might have confused them a little bit. The rebuttal was me. She called me back she asked about the Aerospace Report formula, which I must admit I had to go back and review the formula. What I didn't say is... I should have said something like, “Wow, I wish we had a formula like that. If we had a formula like that, we wouldn't even be here right now.” His [Blake's hand burden] values would have been below the formula and the expected result. If the GSR community held this formula to be useful, then we wouldn't be here [discussing the Blake case]. I simply said that I was aware of the formula after reviewing, but I wasn't aware of anyone in the GSR community that used the formula in case work.

**I think from your description of Blake's behavior... [unintelligible]?** Dowell: You know, John, here is what was said –

- 2) The jury wanted... The prosecution in the opening statement indicated that this was a circumstantial case. That they were not going to produce a “smoking gun.” They couldn't do it. But, it was a circumstantial case – what the jury wanted to see was this: the prosecution showed... Debra [Kowal] testified first and she went through the whole litany the loss of gunshot residue particles on hands that are uncontrolled; washing, wiping anything... They had a picture ... I don't know where the picture came from, but they showed a picture at the trial of Mr. Blake on the grass lawn wiping his palm surfaces on the grass. What they did not show was him wiping the backs of his hands. But the jury said that the prosecution only had evidence that he wiped the palms of his hands. They took it literally. They did not take it as an example as his hands actually as to the fact that they could not demonstrate that he actually wiped the backs of his hands. So there was that kind of issue going on.
- 3) **How important do you think was all this testimony was in the final outcome of the verdict? To me what she [Celia Hartnett] said was pretty innocuous and to look at what the defense offered up to me looks more like a red herring. How important was it? How did they [the jury] view this? Did they say anything about whether or not that was a deciding issue? I would be kind of [unintelligible] if it was.** Dowell: I think they were looking for positive gunshot residue results to make that prediction. ... There were other issues in the case. The two witnesses for the prosecution were part of their story was that Blake was out soliciting hit men to kill his wife prior to the night she actually died. These two guys turned out to be pretty flakey guys. Drugs involved, all kinds of things... But, I think that it wasn't a particularly strong case. I think in retrospect that the prelim... what was interesting the two attorneys that conducted the prelim, one of them is a DA who has a prefect record. At the end of the prelim, he did not want to prosecute the case. It got turned over to somebody else.
- 4) **I didn't follow this case that closely. Was his gun fired?** Dowell: Here is the deal. His handgun unfortunately I sampled it. The problem is that the overall evidence collection in this case should have

been... I am seeing now that in lots of cases there should be a criminals or evidence collection technician specialist that sits down and meets immediately with the team and evaluates the different possibilities and then lays out a strategy of evidence collection and analysis that does not compromise other possibilities. I understand that investigation is by definition an improvement of understanding ...[unintelligible]. What happened with the firearm was that – they immediately took it back to the firearms lab and they Drugfired it. Two things – One is I don't like to even go near firearms areas. We do not have one in our laboratory. We go to the Sheriff and the LAPD. We go down there for test firings and samples. I just feel bad that coming back to my lab which is relatively pure in terms of gunshot residue. I've had those people wash their hands 3X and observe them – not allow them to touch any door knobs or anything coming back into the area and I can still get gunshot residue particles off of the firearm examiners. I know those people are loaded. So this gun had been test fired for one thing – so I tested the outside of the Drugfire envelope and everything – it is loaded with gunshot residue. I wish that they would have collected some other representative clothing form the Blake house that morning. And see what the general contamination of his clothing might have been. There should have been other observations. There is a whole bunch of issues that might have allowed the GSR information to be a little more useful but we didn't have the data to do that.

- 5) **What kind of ammo was used and you found lead only – was that consistent with the ammo. Was there a lot of lead only particles?** Dowell: There were lead only particles in the sample that was collected off the firearm after it was [fired for the] Drugfire [database]. I don't remember exactly what the firearm was.(?)
- 6) **Did he still have a firearm on him when he was first contacted – saw the police?** Dowell: Yes. What he said he did he came back to the car and he actually said he got in the car... in the drivers seat. Which is important because, if she doesn't have stippling or tattooing or sooting or anything on the entrance wound, but still [the shots occurred] perhaps close enough to contaminate the interior of that car with gunshot residue. His entry into that space again constitutes a possible source of contamination... is an explanation as to why he is positive. ... There is no one actually that says they saw him go back into the restaurant. There is no one that that actually says they saw a gun in the restaurant. He could have got back into the car to get the gun out of the car. ... He was found at the scene with his .38 caliber revolver in a holster with him.
- 7) **Was there a comparative ID ... [unintelligible]?** Dowell: No, there was another weapon. Conveniently in front of where his car was parked where the shooting took place there was a large dumpster - an industrial kind of dumpster. The actual murder weapon was found in that dumpster. No fingerprints on the weapon – it was oil down. So they couldn't physically connect him to the murder weapon. But he did have his gun on him which was not the murder weapon when they found him.