

Cops Gain New Fingerprint Tool

November 9, 2003

By WANDA J. DeMARZO - The Miami Herald

When Fort Lauderdale crime scene investigators scoured the apartment of murder victim Michael Sortal, they could harvest only a bloody footprint on the floor and a partial palm print on a blood-soaked comforter.

In the old days, that would have been insufficient to make an ID. Not anymore.

A new computer program called **More Hits**[®] allows investigators to make prints that in the past would have been unreadable. Using **More Hits**, Sortal case investigators were able to photograph and duplicate the prints, feed them into a computer, then clean the image -- removing background patterns and extraneous squiggles -- until they could be compared with clear prints of a suspect or suspects.

They had a match. Two suspects were arrested.

Defense attorneys have attacked this process as "junk science," but the court system doesn't think so. In September, the Fourth District Court of Appeal upheld fingerprint "enhancements" used in the Sortal case as valid.

The Sortal case marked only the second time Broward prosecutors have used enhanced digital imaging in court. Having it upheld by the court of appeals was a relief for the Crime Scene Unit of Fort Lauderdale police.

Fort Lauderdale was the first agency in the Southeastern United States to have successfully admitted digitally enhanced images into evidence at a criminal trial.

= [100.0] standards."

The new software allows police to pull a partial or smudged print or even one on patterned material so it can be enhanced and possibly matched to a suspect.

The software is used by Fort Lauderdale police, the Broward Sheriff's Office and Miami-Dade police.

MIAMI RAPE CASE

The enhancement program is not utilized by the Miami Police Department and might have been a useful tool for police investigating the seven rapes and four attempted rapes now attributed to the Shenandoah rapist.

During their investigation of the serial rapist, Miami police later acknowledged having partial prints from a crime scene, but said they could not find enough identifying markers to match them to a suspect.

The suspect was caught not through forensics but when police staking out another suspect spotted him driving a car that matched the description of the rapist's vehicle.

Miami police officials did not respond to four e-mailed requests for comment.

DIGITAL SOFTWARE

Partial prints, enhanced with the digital software, can yield unique characteristics or "points," such as arches, loops and rolls not visible to the naked eye, said David Witzke, vice president of PC Pros, the company that manufactures **More Hits**.

Every time someone touches something -- a screwdriver, a knife handle, he leaves a print. The visibility of the print depends on the pressure the person used when he touched the object, the type of object -- was it porous, how much was the person perspiring when he touched the item? -- Witzke said.

LIGHT OR DARK PRINTS

"The pressure exerted by the person determines if the print is light, faint or dark enough to be seen by the naked eye," he said. "One usually finds partial prints at crime scenes because people don't roll their fingertips in black ink before they commit a crime."

And, although a person can't see the print in its entirety, it doesn't mean it's not there, Witzke said.

"With the **More Hits** program, we're finding more and more prints and matching them to suspects than ever before," Witzke said. "Just because we can't see the print doesn't mean it's not there. Miami could have used the program. It could have helped them."

The computer software was developed in 1995 by Erik Berg, a forensic supervisor with the Tacoma police in Washington, who testified at a hearing in the Sortal murder case.

Berg said his system is no different from changing the contrast on a TV set.

"I've changed what you see, but I'm not altering the image. I'm clarifying it," Berg said. ``It's like when you have a closet with three bulbs and there are shadows in the closet you want to get rid of. You remove one of the bulbs."

THREE IN NATION

The Sortal case is one of only three in the country that have resulted in a guilty verdict.

Two other state appellate courts, in Ohio and Washington, have ruled that the digital enhancement of prints is reliable and meets legal standards.

The system was used in a landmark 1996 Washington murder trial that hinged on bloody palm prints on a bedsheet.

The prints were obscured by the fabric's pattern, but Berg's software was able to bring them up more clearly. A suspect was convicted of rape and murder.

The Ohio Supreme Court ruled that digital enhancement of prints found on the bedspread of an Ohio woman raped and murdered in 1997 could be used in court. A suspect was convicted and sentenced to death.

AFTER SLAYING

Fort Lauderdale installed its system in April 2001, a month after the slaying of Michael Sortal, a warehouse manager found dead in his apartment.

He was naked, with a plastic bag over his head and a belt around his neck. Police collected genetic material from his body.

The evidence led them to two Fort Lauderdale suspects, Geoffrey Kennedy, 28, and Kevin Hoffman, 27.

AT LOCAL BAR

Police said the two met Sortal, 47, at a local bar. Detectives think the two Fort Lauderdale roommates preyed on gay men.

Using the enhanced method, investigators working in Sortal's apartment were able to lift prints matching those of Kennedy and Hoffman.

Kennedy, convicted in January 2002, was sentenced to life in prison. His appeal was denied.

Hoffman's trial is expected to start soon.

BSO installed the program three years ago. Investigators used it in an attempt to make a case against Victor Reyes, a suspect in a 1996 Pompano Beach homicide.

FAINT HANDPRINTS

Detectives investigating the shooting death of a Pompano Beach man said they found faint handprints on duct tape wrapped around the body. At the time, the prints were useless. That changed when BSO enhanced a smudged print that was almost invisible to the naked eye. A technician changed the tone of the print and came up with a design matching that of Reyes.

Reyes' attorney, Barbara Heyer, argued the technique was "junk science," unreliable and easily manipulated.

Reyes was acquitted.

Jurors didn't question the enhancement method, rather they were concerned about when and how the fingerprint came to be on the tape.

BSO says there's nothing fake about the evidence. The print itself is not altered during the enhancing, the agency says.

APPEAL EXPECTED

"We anticipated that if [Reyes] had been found guilty, Heyer would have appealed the case on the fingerprint enhancement," said BSO crime scene Sgt. Jim Kammerer.

So, when the Kennedy case came up on appeal, "this is ultimately what we have been all waiting for," he said. ``Essentially, if it passes the court of appeals, then it's pretty solid evidence."