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The President's Message

Greetings Utah
Division of IAI
members,



This past month we held our Spring Training. Detective Brooke Plotnick, West Valley City Police, instructed on hand writing examination. It was a great training, with a lot of good information passed on to those who attended. I would like to thank Brooke for the time he spent and put in to making the training a memorable and educational one. Following the Spring Training we held our membership meeting. During the meeting the members voted to approve the new Constitution and By-Laws. Since this is the second time these documents were voted on, they are now in effect. To view the Utah Division of IAI Constitution and By-Laws look on the website - <http://www.utahiai.org> With these now in effect several things need to happen. Vanessa Shama, Utah Division of IAI Treasurer, is no longer able to hold her board position. I have asked, Cresdeen Roller - Layton City Police - to fill the remainder of Vanessa's term. I would like to thank Vanessa for the time she dedicated to serving as the Treasurer. I would also like to welcome Cresdeen to the board or directors. Also a few months back, Dr. Michelle Heward contacted me and asked to be released from the Legal

Representative position on the board of directors. To replace Michelle, I asked John Huber to serve as the Utah Division of IAI Legal Representative. John is the Chief Prosecutor for West Valley City. Also new Utah Division of IAI Applications are being submitted with this copy of the Patent Print. These applications need to be filled out COMPLETELY and returned to James May - Newsletter Editor. The Constitution and By-Law Committee - James May, Trent Grandy and Charlotte Bowerbank will then review these applications and update our membership records. Your yearly dues do not need to be returned with your application, unless you have not paid for 2003. A copy of the updated application is also available for download or print on the Utah Division of IAI website. Persons who are not members of the Utah Division of IAI may fill out an application and submit it with the dues. If you have any questions about the new application please contact myself or any of the Committee members.

I hope this issue of the Patent Print finds you all well. Take care and be safe.

Jason Cole- President

Special Thanks

We would like to give thanks to the following:

Staples	Mayan Restaurant
Salt Lake Stingers	P.F. Chang's Restaurant
Fazoli's Restaurant	Tonya Lockwood
Jeff Itami	Holly Plotnick
Brooke Plotnick	Kent Timothy
Weber-Metro CSI	Salt Lake County CSI

Highlights

We are going to be highlighting our Crime Scene Units/Forensic Units from around the state in upcoming issues. If you would like to see your Department represented in an upcoming issue, please forward a picture and a paragraph about the group to our Newsletter Editor.

Weber-Metro Crime Scene Unit - CSI



One of the busiest units in Weber County is the Weber-Metro Crime Scene Unit, answering more calls for service in 2002 than it has in any year since its inception in 1992. The seven member squad responded to 4,043 calls in 2002, more than a 12.5% increase from the 3,536 answered in 2001. This increase stretched the CSI manpower to the edge, but quality service remained the priority. AFIS (Automated Fingerprint Identification System) fingerprint hits jumped to over 10% of fingerprints sent through the system. Most of the AFIS hits provide the possibility of clearing a case that actually would not have been solved through conventional means.

Although primarily responsible for providing forensic services in Weber County, CSI gave assistance in two homicide cases in

neighboring Box Elder County in 2002. At the direction of the Sheriff, Weber-Metro CSI gave assistance to other agencies: Davis County Sheriff's Office, Layton Police Department, FBI, U.S. Postal Inspector's Office, INS, U.S. Forest Service, and the Utah Highway Patrol.

In April, CSI sponsored a 40 hour class in the "Detection, Recovery, and Examination of Footwear Impression Evidence." It was taught by footwear impression expert and former FBI agent William Bodziak. The class, provided free of charge to law enforcement personnel, gave attendees from throughout the state an opportunity to learn from a nationally recognized instructor. Similar training in other areas of forensic science are anticipated in the upcoming year.

Members of the Weber-Metro CSI are:
(left to right)

Russ Dean, Mitch Pilkington, Brandy Jo Child, Paul Rimmasch, Tristan Villalobos, Jason Romney, and Laura Sorensen

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Salt Lake County Crime Scene Unit



The Crime Lab consists of Nine Crime Scene Technicians, One Fingerprint Technician and a Sergeant as the supervisor. We currently have one vacancy. The following information is the statistical information for the Crime Lab for 2002. We responded to 4819 crime scenes in which we documented the evidence and scenes by the use of 35MM and video photography. This is an increase of 11.2% over 2001. The Crime Lab unit wrote 5030 reports from scenes processed and documented to evidence processed in the Lab. This is a 7% increase from 2001. The Crime Lab took 31,123 photos in 2002. Some scenes were processed for latent fingerprints, which were entered onto the AFIS equipment into the WIN network. We entered 325 latent fingerprints from 215 cases. We obtained 78 hits through the WIN network. We also entered 68 ten print cards onto the AFIS system getting 46 hits.

The Crime Lab personnel also fingerprinted 2282 people for 3278 ten print cards being rolled an increase of 19.8% over 2001. We also classified and filed 30105 inmate fingerprint cards into our hard card database. The Crime Lab had a tech retire in October of this year and we lost another tech to a reassignment in July due to the Fingerprint Tech terminating her employment. We were able to hire one new technician but still have one vacancy.

We still were able to assist many outside agencies with their requests for assistance ranging from copies of ten print cards, assistance with processing crime scenes to doing comparisons of latent prints on checks, pawn cards or latent fingerprints recovered from scenes. We have also assisted with entering many latent fingerprints into the WIN network on AFIS. We handled 98 Assist Outside Agency cases for a total of 260 man-hours spent.

We will be converting over to digital cameras in the 2003-year. This will help us be more efficient and cost effective.

Members of the Salt Lake County Crime Scene Unit are:

Front row: Left to Right

Cheryl Christensen, John Bell, Sgt. Lassig, Gary Lucier, Dana Miller

Middle row: Left to Right

Steve Mousley, Deborah Herrera-Parkin

Back row: Left to Right

Robin Fassett, Barbara Reed, Amy Johnson

An Alternative Method of Obtaining Latent Prints from the Skin

John M. Bell

Jeff K. Itami

Identification Technicians

Salt Lake County Sheriff's Office

This training is written for those who are already familiar with the procedures used to obtain latent prints off of various surfaces, but, are not familiar with, or are not satisfied with results obtained with the silver plate/iodine fuming method of processing human skin for latent prints. With this new fundamental knowledge, the crime scene technician can now obtain latent prints of value (for comparison

purposes) from the skin of living and deceased persons (within certain time parameters).

All suspects leave evidence at the scene of a crime. The evidence may be circumstantial (such as paint chips at the scene of a hit and run accident), or physical (the best being the latent fingerprint). These pieces of evidence are vital in obtaining a conviction in a criminal case, and as vital in the reconstruction of events.

However, as the crime scene technician will attest, the obtaining of even one latent print of value is not necessarily an easy task. There are many surfaces that are not conducive to latent examination and the retrieval of the observed print. One such surface is the human skin. Because of the texture of the skin, it has long been thought that the latent prints cannot be obtained, at least, not latent prints that are of any value for comparisons.

However, under some circumstances, it is possible to obtain latent prints that are comparable to many prints found on much smoother surfaces. It must be remembered that in using this method, the results obtained will be affected by their physical/emotional state of the victim, as well as whether or not the victim has bathed between the time of the assault and the examination.

These latent prints must be obtained along certain guidelines, which are described below:

1. On living persons, the victim must **not** have washed the area to be examined;
2. On a living person, if the victim is sweating in the area to be examined, there is little chance of usable latent prints being located;

3. Ideally, on a living person, the examination should be accomplished within a time period of 30-60 minutes;
4. A deceased person **may** retain latent prints on their body from 60-120 minutes;
5. A deceased person, whose body is moist with any liquidous matter, will not yield any prints of value.

Tests were completed using three (3) physical/emotional states, 1) Resting, 2) Normal, 3) Increased. The increased state was brought about by a slightly exaggerated speed of movement by the subject. This was to simulate the physical/emotional state of a victim. It was found that the increased perspiration of the subject tended to erase the latent prints much quicker.

The following, then, is a procedure which may be followed in the examination of a victim's skin for latent fingerprints. In the following scenario, the victim is a live, female rape victim. In questioning the victim, it is determined that the rape occurred not more than 30 minutes prior, and the victim has not showered and has not touched any of the areas of skin to be examined (usually the arms, neck, and shoulder area). The required equipment needed includes:

1. Black latent print powder
2. 1 Fiberglass brush, (7.000).
3. 1 Roll of 2 ½ inch latent lifting tape, clear or frosted
4. A pack of Polaroid Type 52 Polapan Film

The first thing you will need to do is:

- A. Remove the photographic paper from the rest of the film sleeve. The paper is the only part of the film sleeve required.
- B. Place the **emulsion** side of the paper against the area the victim indicates

the suspect touched.

- C. Hold the photo sheet as smoothly as possible against the skin, for two to five seconds, then peel back the paper. (see figures 1 & 2)

After removing the paper from the skin, slowly and smoothly brush a generous amount of powder over the emulsion. The area where the latent prints may be obtained will begin to show very quickly.

Note, you may want to cup the paper over the powder bottle in order to save the powder that does not adhere to the paper.

Once you can see the print, you will need to clean it up. This is done in the same method as with any other print. However, you are more likely to destroy the prints on this photographic paper than you would with other objects, so be careful of the amount of pressure used in the cleaning of these prints. (See figure 3)

When you have obtained the print you will

need to do the following:

- A. Place a case identifier and a scale next to the print and photograph it. This will provide evidence of the print, in the event the print is erased from the card in some way.

Note, if you do not want to photograph the print for evidentiary purposes, you may use 2 ½ inch lifting tape to place over the print. This will protect the print from being erased.

- B. On such a card place four items of information, at the very least to identify the case. These items are:
1. Date
 2. Type of case ie, Rape, Assault, Homicide, etc.

Figure 1

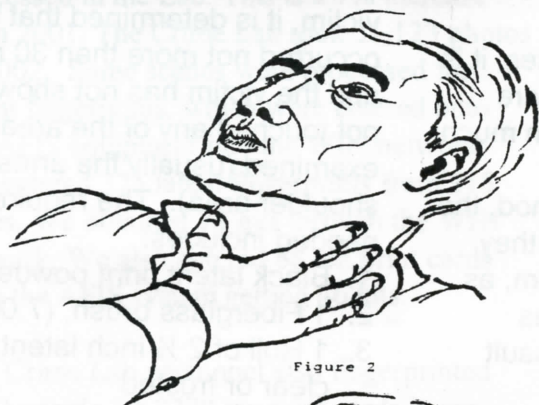
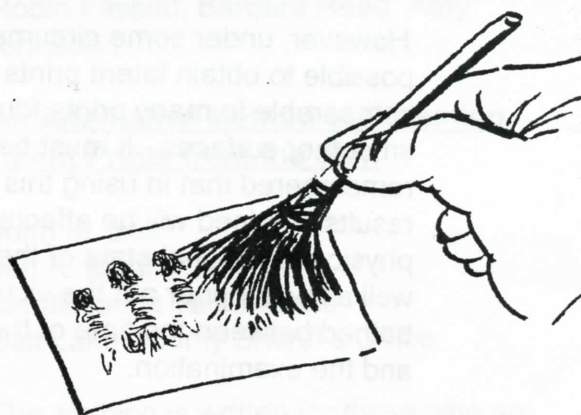
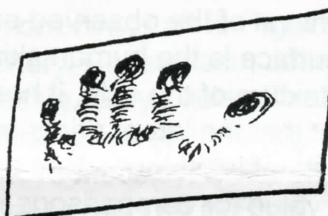


Figure 2



Figure 3



3. Case number and reporting officer
4. Process used

The latent prints you will have, in looking at the paper, are a reversed image of the normal latent prints. The image you see would be the same as you would see looking directly at the subjects finger.

Therefore, once you have obtained the best possible latent print, place a length of lifting tape over the top of the latent to protect it from destruction, and photograph it.

When you have the processed negative of the print, you will need to turn the negative over, so that the image to be printed will be a mirror of the one on the latent card. This is because in lifting the print (unlike in normal lifting procedures), the latent print is lifted, and then processed. It is much like making contact prints in photography, the image viewed is a reverse of what you want.

The print photographed needs to be a 1:1 copy of the original. This will simplify comparisons and testimony in the case. In the completed photograph, the image is in correct color and direction for comparisons. The purpose for using white photographic paper instead of black or an other color paper, is to allow us to process and photographically reverse the direction of the print without having to reverse the color of the image.

Once the latent print is reproduced to the correct position, latent print comparisons can be made in the same manner as normally done. And, while there is a skin tone lifted from the victim, the latent print examiner should have no problem in identifying points of comparison in a properly lifted and processed print.

References:

Robert May, Federal Bureau of Investigation, FBI Academy, Quantico, Virginia

Robert Moran, Federal Bureau of Investigation, FBI Academy, Quantico, Virginia

Thomas Buciak, Prince George's County Police Department, MD.

The chart shows a list of the tests and the quality of results.

Test Number	Test Time	Physical State	Print Quality
1	5-min	Resting	Good
2	10-min	Resting	Good
3	15-min	Resting	Good
4	20-min	Resting	Good
5	25-min	Resting	Good
6	2nd lift of 5	Resting	Poor
7	30-min	Resting	Good
8	35-min	Resting	Fair
9	40-min	Resting	Fair
10	45-min	Resting	Fair
11	50-min	Resting	Fair
12	55-min	Resting	Fair
13	60-min	Resting	Fair
14	60-min/2nd lift	Resting	Fair
15	65-min	Resting	Minimal
16	70-min	Resting	Minimal
17	75-min	Resting	Poor
18	80-min	Resting	Poor
19	5-min	Normal	Good
20	10-min	Normal	Good
21	15-min	Normal	Good
22	20-min	Normal	Good
23	25-min	Normal	Good
24	30-min	Normal	Fair
25	35-min	Normal	Fair
26	40-min	Normal	Fair
27	45-min	Normal	Fair
28	50-min	Normal	Fair
29	55-min	Normal	Poor
30	60-min	Normal	Minimal
31	5-min	Increased	Good
32	10-min	Increased	Good
33	15-min	Increased	Fair
34	20-min	Increased	Good
35	25-min	Increased	Minimal
36	30-min	Increased	Fair
37	35-min	Increased	Minimal
38	40-min	Increased	Poor
39	45-min	Increased	Poor
40	50-min	Increased	Poor
41	55-min	Increased	Poor
42	60-min	Increased	Poor
43*	5-min	N/A	Poor
44*	10-min	N/A	Poor
45*	15-min	N/A	Poor
46*	20-min	N/A	Poor
47*	5-min	N/A	Poor
48**	10-min	N/A	Poor
49**	15-min	N/A	Poor
50**	20-min	N/A	Poor

Dynamite does come in small packages

Case review by Holly Plotnick, West Valley Crime Scene Investigator

On June 4, 2002 at about 12:30 pm, a report of shots fired came in to West Valley dispatch. Officers and detectives arrived at the location,

Officers and detectives arrived at the location, a residence, and knocked at the door. There was no answer. They proceeded to knock on the window, again with no answer. They returned to the front door, knocked again and identified themselves as police officers and that the occupants should answer the door. Detectives then went to the back sliding glass door, which was partially open, and yelled to the occupants to come out. It was then that the two occupants came into view and were requested to fully open the door. Officers and detectives cleared the residence and in the process, they came upon a brown and black rifle with a scope in the top floor east bedroom. One of the suspects told police that he was sleeping in the front room and didn't hear the officers knocking or calling to him. When the suspect was told that officers were there because of a report of shots fired, the suspect said that he knew nothing about it. He said that there was a rifle in the house, and it belonged to his cousin. He said he had it because he was "jumped once by his neighbors next door. He said he hadn't touched the gun in twenty-four hours. Officers went to the back yard to look for shell casings but none were found. Both of the suspects denied shooting the gun, but both admitted to having the gun out on the deck the night before. The first suspect then admitted that the gun was his and admitted to past shootings, like into the concrete of his mother's floor, but denied shooting that day. The second suspect then told detectives that he fired shots at a tree in the back yard, but no shell casings could be found. Behind this tree was a wood fence and beyond that fence was the house of the witness (the same one that supposedly "jumped" him). This put the house in the direct line of fire. He also told detectives that the other suspect was with him and both had shot the gun at the tree. He filled out a witness statement and both suspects began verbally arguing for "telling on" each other. Shell casings were later found.

One .22 caliber rifle, fourteen .22 caliber bullets, seven .22 caliber shell casings, and one .22 caliber rifle magazine were all submitted for latent fingerprint processing. I fumed all of the items with cyanoacrylate, and then used the dye stain, RAM. They were then examined with an alternate light source, the Omnichrome Spectrum 9000. Partial fingerprints were found on the rifle, rifle magazine, and six of the bullets. All were photographed. They were compared to the fingerprints of the two suspects and two identifications were made. Two of the .22 caliber bullets had latent fingerprints that were identified as being made by the right thumb of one of the suspects. One of the bullets had twenty-four points that were identified while the other had twelve. Considering that a .22 caliber bullet is only about 1 inch long and 1/4 of an inch wide, even finding eight identifiable points would be great. Most of the times that I have had bullets or casings to process, I haven't had much luck but now I know that nothing is impossible!



The Bulletin Board

Please check your Division web-site www.utahiai.org

I.A.I. International Education Conference

July 6 - 11, 2003 - - - Ottawa, Ontario, Canada

Fee - - - Members \$225.00 / Non-members \$275.00 (5 days)

Any questions, go to www.theiai.org

Utah Crime Scene Investigators Meeting

July 17, 2003 - - - Heber, Utah

Fee - - - No Charge Time - - - 1000 to 1200

Any questions, call your Utah Division President or www.utahcrimesceneinvestigators.com

Utah Crime Scene Investigators Meeting

August 21, 2003 - - - Sandy, Utah

Fee - - - No Charge Time - - - 1000 to 1200

Any questions, call your Utah Division President or www.utahcrimesceneinvestigators.com



The Patent Print

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