

White Plus Black Equal Prints That Are Easier To Find and To Read
By Harold Ruslander (1)

Have you ever had one of those situations when you were trying to develop a latent print on a dark surface, while using black powder, and the contrast or lighting conditions were less than perfect? This is especially true when the latent is on glass. Sometimes it is just about invisible, even when you dusted it with the powder.

There are some latent print examiners who are hesitant to try to do a comparison with latents developed with white powders. This seems to be because they are used to looking at black ridges and find it hard to compare a black ridge with a white one without a tremendous amount of concentration.

Not long ago, my partner, Ralph Rinaldi (2), was processing some evidence, a VCR, in our latent processing area. The lighting in the processing room is less than ideal for viewing latents on non-contrasting surfaces. He decided to use white powder(4) to process the black cabinets of the VCRs. This produced the desired results of both developing the latents and in making them easy to see since there was now a contrast of colors. He he decided to experiment to see if after developing a latent print with white powder, he could cover it with black powder(3) to make it easier to compare to a black rolled impression.

Using the feather brush(5) without the addition of any more black powder than was already on it, he began dusting over the latent. He was able to transfer enough black powder to give the white latent a dark grey appearance. This looked like a latent print developed by using a grey or black powder. A conventional tape lift was then performed. The resulting latent lifts (see photos), show in graphic detail how clear the lift is. There was no loss of ridge detail with the addition of the black powder and no degradation of the sharpness of the pattern.

While it is true that this requires an additional step to develop a latent print, if the examiner prefers latents done in black powder, this process will allow the technician to use white powder to find and develop the latents then cover the white powder with black powder for the actual lift. It also does away with the need to have both black and white latent lift cards or hinged lifters. Even if your examiner doesn't mind white powder lifts, if you ran out of black cards or hinged lifters and needed to do the lift transfer on a white card, this method will allow that also.

We began experimenting with this process, photographing each step as we went along. It has produced consistently good results in our laboratory setting. We have used it on glass (as shown) and on dark metal and plastic surfaces with equally good results. It also appears that as long as care is taken to apply the white powder sparingly so as to not fill in the details of the latent and then to apply the black powder gently, that there is no "rubbing out" of the pattern. This care is necessary since the white powder has a much finer grain size than the black powder we use.

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During our experiments, a "dual use" grey powder(6) was also tested. We found that less than satisfactory results were obtained using this color powder. We feel the "dual use" powder is not dark enough to "overpower" the diluting effect of the white powder and produce a developed latent with a high enough contrast. The products we used are not the only ones which do or do not produce the desired results. While we do feel that a "dual use" powder is just not dark enough, any quality brand of black or white powders, on the market today, should produce similar results.

This process is for those latents not developed by alternative methods such as dye staining, fluorescent powders or CA fuming which produce the desired color changes. As with any new technique, practice sessions should be conducted in the office setting prior to actual field use. This way, you can become proficient with the technique and not run the risk of damaging or destroying a latent print at an actual crime scene.

Since we were satisfied with these results, we began going to the various roll-calls asking the patrol officers if they too were experiencing difficulty seeing latent fingerprints developed on these types of surfaces with black powder. We found that those officers who process scenes on a regular basis were in favor of this idea.

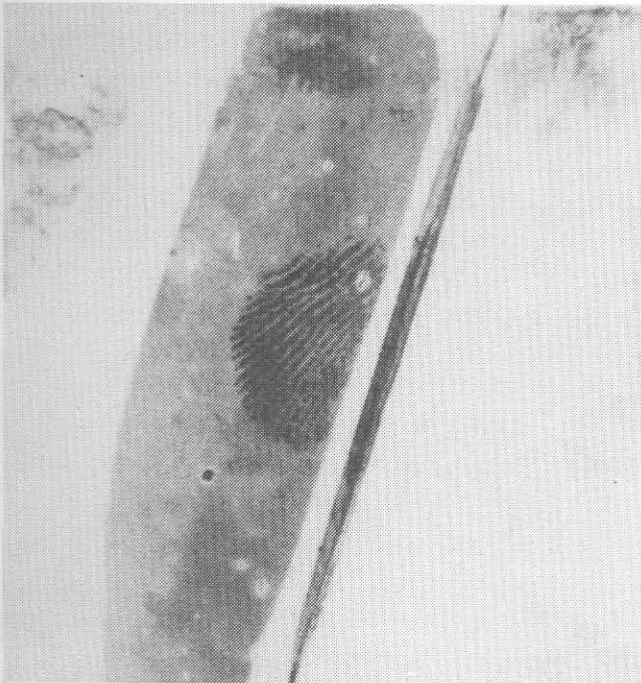
Within days of publicizing this new method, we were called to the scene of a daytime burglary. The point of entry was thru a side window after the removal of a security grate and the screen. The screen and windows were aluminum with a dark, baked on finish. The scene was processed using our new technique. Identifiable latents were developed and, after being photographed, lifted.

The field use of this method was as easy as it was in the lab setting. No other lighting except ambient light was needed to see the latent prints on the dark surface of the window frames once the white powder was applied. Of course, at night or in low light conditions, artificial lighting would be needed to assist you in seeing the developed latent prints.

Photographs taken during the developmental stages as well as of the burglary scene clearly show the steps taken in the process as well as the results obtained.

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- (3) Sirchie(R) "Hi-Fi" Volcano Latent Print Powder, Silk Black, Cat. # BPP09128
- (4) Sirchie(R) "Hi-Fi" Volcano Latent Print Powder, Indestructible White, Cat. #103L
- (5) Sirchie(R) Search(R) Feather Duster, Cat. #123L
- (6) Lynn Peavey Co. "Peavey Powder" Dual Use, Cat. #5513

PHOTOGRAPH #1



DEVELOPED AT BURGLARY SCENE

PHOTOGRAPH #2



DEVELOPED IN LAB

PHOTOGRAPH #3



DEVELOPED IN LAB

PHOTOGRAPH #4



DEVELOPED IN LAB