"Investigative and Forensic Photography in the United States"

Instructor: Aperture Photo Training, and Michael J. Brooks

Hello, I'm Michael Brooks!

I would like to start off by thanking Mr. Fabio Massa for contacting me about participating in your wonderful event.

Mr. Massa has been so patient with me in getting things set up while I've been dealing with a death in the family.

Thank you Mr. Massa for your kindness, and understanding.

With that said, I wish I could have offered this lecture live, however, I have another training engagement scheduled at the same time as your event.

Nevertheless, I'm honored to be able to put together this presentation discussing how Photography is used by investigators throughout the United States, and in particular, the two very distinct applications they use – "*Investigative Photography and Forensic Photography*".

To begin, we need to understand that visual imaging has been a part of all societies for more than 30,000 years, and as evidenced by the many painting and drawings found in caves around the world.

As societies progressed over time, and well after those drawings and paintings were made in the caves in France, Australia and elsewhere, one will find that there are many forms of visual media used to create representations of how people lived, the foods they ate, the clothes they wore, the religions they followed, and so much more.

As well, there are many forms of documentation tools that have been used to create: drawings, paintings, etchings, sculpture and pottery to name a few.

The are many tools and techniques that have been used to make their creations that survive to this day, and they come from cultures and societies found in Africa, Europe, Asia, South and North America, Australia, and by many of the most important surviving records come from important ancient societies in France, Egypt, China, Greece, here in the United States – and Italy.

The many forms of documentation used include: drawings, paintings, sculpture and pottery, all of which have been used to record events in society for thousands of years.

Which brings us to Photography, which is also a visual medium used for documenting historical events, everyday life, and so much more. However, and by comparison,

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Photography is relatively new when compared to others visual documentation tools. In fact, Photography can be considered an infant when looking at those other art forms.

Nevertheless, it wasn't long after the first reliable photographic process was patented in 1839, that Photography was discovered to be useful tool for recording events and other for applications by law enforcement.

The oldest known use of Photography in Law Enforcement dates back to 1841 when the Paris police department began using photographs for mug shots.

The history of law enforcement Photography in other parts of the world started not long after those first mug shots in France, including in the United States.

Ever since those first photos were made in 1841, the photographic technologies, techniques and applications of Photography used by law enforcement have continued to evolve.

Now, let's take a look at the two distinct types of photographic techniques used for investigations within U.S. law enforcement and/or public safety agencies:

INVESTIGATIVE SCENE PHOTOGRAPHY: ***It is the technique of documenting the scene of a crime, accident, terrorism, natural deaths or suicides and where there may also be evidence that needs to be captured by means of: still photographs or motion pictures.***

Investigative photography employs basic photographic equipment, techniques and protocols, and normally involves: overall photographs, mid-range photographs, close-up photographs and those of examination quality, or close-up photographs with a scale in the image.

In some instances, "Forensic Photography" techniques are applied at the investigative scene, however, they are distinctly different techniques from general photography, and usually require a higher-level of skill to perform.

FORENSIC PHOTOGRAPHY: Involves the photographic documentation of evidence by means of advanced photographic equipment and techniques.

Forensic photography is normally performed in a controlled environment such as a photographic studio, or laboratory. However, some techniques can be performed on scene if the environment allows, and the necessary equipment is on-hand.

Some of the equipment and radiant energies used in Forensic Photography are typically not found on a scene, and they include: X-rays, Ultraviolet and Infrared energies. Equipment used in forensic photography can include: narrow-band pass Lasers, forensic alternate light sources emitting visible energy or UV and IR energies, narrow-band pass filters, barrier filters, polarizing filters, color correction filters and image editing software programs.

In the United States, photographs captured using the aforementioned applications are used by law enforcement and public safety officials to further investigations of many forms, in courts of law and for other purposes I will discuss.

Let's start by touching upon some of the important U.S. cases and milestones for Photography in U.S. law enforcement investigations. However, I'm going to add a little twist, and use more modern photographs for each of the cases.

By using more current photographs, it will demonstrate that the older, more developed techniques, still have modern applications, just like when they were used in some cases that are now over 150 years old.

The first instance of photographs being used in a court of law in the United States dates back to 1859, when the U.S. Supreme Court ruled on the admissibility of photographs in the case of "*Luco vs. United States".* In Luco vs. U.S., the title for a land grant was forged, and the photographs that were entered into the courts as evidence, proved the forgery of the land grant.

In 1874, in the state of Pennsylvania came the case of "*Udderzook vs. Commonwealth*" that ruled and affirmed the use of photographs as an established means of reproducing the correct likeness of a person.

Next came the first accident photographs in the Supreme Court of Massachusetts in the case of "*Blair vs. Inhabitants of Pelham*", in 1875.

From there, in the state of Iowa, the Iowa state Supreme Court ruled and affirmed the admissibility of injury photographs in the case of "*Redden vs. Gates*" in 1879.

As photography technologies and techniques progressed, its uses within law enforcement in the early part of 1900's changed from where it was first used primarily as a documentation tool in investigations, to where it was now also being used as a forensic tool.

At the same time, and as the photographic technologies and techniques improved, their uses in court cases changed, too.

The first bullet comparison photographs were used in the 1902 case of "*Commonwealth vs. Best*" in the state of Colorado. However, the method of bullet comparison used in Commonwealth vs. Best has since been deemed unreliable and been replaced by more modern comparative methods.

For those who enjoy driving at faster speeds than permitted by law, speeding tickets issued with the use of Photography has been around since 1910 when the state of Massachusetts began capture speeding cars with cameras.

The use first fingerprint photographs were admitted as evidence in "*People vs. Jennings"* in the state of Illinois. When the People vs. Jennings was heard in 1911, fingerprints had already been used since 1882 for identification purposes in the U.S., but until 1911, they hadn't been accepted in a court of law.

In 1931, the state of Illinois Supreme Court affirmed X-rays photographs of teeth for identification purposes in "*People vs. Greenspawn*".

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In 1934, the first Ultraviolet photographs were used in the "*State vs. Thorpe*" in the state of New Hampshire. In State vs. Thorpe, the UV photographs showed that there was blood present on a linoleum floor. Furthermore, the UV photographs showed distinctive footwear marks that matched the shoes worn by the defendant.

The first color photographs to be accepted in a U.S. court occurred in 1943 in "*Green vs. County of Denver*" in the state of Colorado. In Green vs. County of Denver, the color photographs were used to demonstrate and show discolored, or rotten meat products.

In 1943, the state of California allowed the use of Infrared photographs to show erased writing in the case "*Kauffman vs. Meyberg*".

In the case of "*U.S. vs. Cairns*" in the state of Oregon, the admissibility of forensic facial identification was affirmed in 1970 by the 9th Circuit Court of Appeals when a "*Forensic Photographer*" demonstrated the similarities of the nose, mouth, chin line, hair lines, ear contours and inner folds of the ears between the known and questioned photographs of the defendant convicted of armed bank robbery.

In 1975, the U.S. 2nd Circuit Court affirmed the admissibility of expert testimony by a "*Forensic Photographic Expert*" in a case also related to facial comparison, and the sworn testimony in which it was also stated that the defendant was about the same height as the person depicted in the photo from bank film as entered in the case of the "*U.S. vs. Brown*" from the state of New York.

Finally, in 1998 and 2002 digital images made their debut in U.S. courts. In the state of Washington was the case of "*Washington vs. Hayden*", while in the State of Florida was the case of the "*State of Florida vs. Reyes*" in which digital imaging technology was accepted into U.S. courts of law.

As time progresses into the future, there will be new court cases challenging new photographic technologies, and/or any novel photographic techniques that might also be developed.

No matter where, or when the legal challenges do occur, Photography will continue to be major tool used for any and all types of investigations. It will also be used in almost every forensic technique by law enforcement, and the public safety community as a whole.

Beyond, those two main applications of photography as used by investigators in the United States, or for "Investigative Photography and Forensic Photography", there are many reasons in which photography might be employed:

1) Through surveillance photography and standard photographic methods and techniques, photographs can be used for the identification of potential criminals, terrorists, a victim of crime, missing persons, damaged – lost or stolen property, and for identification of evidence.

2) Photographs can be used to accompany documents and reports in order to enhance the written narrative of an investigation or the forensic sciences.

3) Photography can be used to document criminal investigations, a wide range of physical and latent evidence types, accidents, terrorism, fire scenes, natural deaths and suicides.

4) Photographs are used for court exhibits for the purpose of providing a visual interpretation of the scene and of the evidence from a scene, and to enhance written, sketched or drawn narratives.

5) Photography is also used for the purposes of public relations, training, crime and fire prevention and for liability against lawsuits.

Let's take a look some of those areas in more detail.

Photography is used by investigators on every level, in particular; it is utilized after a scene has been secured, rendered safe and has had the preliminary survey done by the first responders on scene.

If an agency has protocols in place setting forth the rules on how their personnel are expected to process an investigative scene photographically, it usually begins with the following photographs that are made at every scene:

1) *Overall Photographs*
2) *Mid-range Photographs*
3) *Close-up Photographs*
4) *Examination Quality Photographs (Close-ups Photographs with a scale present)*

Photographing a scene using established protocols or standard operating procedures, and a normal perspective lens for most shots – this series of photographs will assist in telling the overall story of any scene under investigation.

When breaking down the series of the four photographic steps in scene documentation, the first step in the process, which is ultimately the responsibility of the person operating the photographic equipment – their first objective should always be to positively identify the location of the event with *overall photographs* first.

Next, the *mid-range, close-up* and *examination quality photographs* will connect the location to potential victims and the evidence found at the scene.

Again, if the series of four different perspective photographs are completed properly, they will identify where all evidence is located in relation to the overall scene, and specifically, show exactly where it was found, and what role everything documented may have played in the event that lead to the investigation.

A scene properly documented, should always assist in the analysis of the scene, the forensic examination of the evidence, and ultimately lead to an arrest, trial and conviction of the defendant.

However, and in some cases the photographs made at a scene under investigation doesn't lead to a criminal conviction, but the photographs may help lead to changes in laws, or changes in safety and security procedures.

In summation, those four photographic documentation steps or protocols, they are fairly standard across the United States. Furthermore, they don't deviate much whether the scene under investigation is one with criminal intent, was an act of terrorism, an accident caused by a moving vehicle of any kind, or if it involves a natural death or suicide.

Outside of the standard protocols photographs, let's take a brief look at some of the more narrow uses for Photography by law enforcement, and the public safety community, and in relation to "Investigative Photography and Forensic Photography.

In addition to the four standard protocol photographs, some scenes may require aerial photographs. Aerial photographs can be accomplished by use of an aircraft, by climbing a ladder, shooting from the roof of a building or by more modern methods – use of a drone.

Photographs are sometimes made of the crowd at the scene. For decades criminals have been photographed at the scene. They often do this in order to observe their work being investigated, or because they are proud of their accomplishment.

From an evidential standpoint, photographs have been useful helping see things that might not be possible to see with the naked eye.

For example, the Photographic Specialist, or equipment operator may have to deploy various angles of light to see and capture latent fingerprints, or indentions made on a bank robbery note that ties a defendant to the scene of a crime.

From advanced forensic photographic techniques, we can use filters with a camera capable of capturing Ultraviolet Luminescence or Infrared Reflected energies with documents that have been altered, artwork that has been forged, and text that has been erased or obliterated.

Finally, and within many death investigations, photographs have been extremely important in helping determine the place, manner and sometimes the time of death.

For instance, and when properly photographing a homicide victim, the size or type of wounds present can, or have helped determine the manner of death with many victims, or the type of weapon used in the commission of a homicide. As well, injuries noted at autopsy can help identify which pilot may have been at the controls when it crashed.

What's even more important is when any one of those scenarios is photographed properly. When a camera is used properly, or when the proper photographic technique and protocols are applied, the images captured are invaluable to the prosecutor, investigator, analyst or forensic scientist.

In summation:

• Photographs are only effective when the camera operator is properly trained.

• Next, the operator is only effective if there are protocols in place outlining the procedures for properly documenting investigative scenes, and the evidence found at them.

• Finally, both the camera operator and the proper procedures only work, and become effective when there is excellent managerial leadership, and support.

In closing, all of these techniques and processes that were discussed today can be learned through courses offered by *Aperture Photo Training* (www.aperturept.com).

As a point of emphasis, the topics that I went over today, they are the same photographic techniques, and protocols I taught for more than 10 years at the FBI Academy starting in 1997, and continue to teach today.

If there is a course, or specific topic that you or your colleagues would like to see *Aperture Photo Training* bring to Italy, with the assistance of Mr. Fabio Massa, we can work with you in order to bring the same courses that I have presented to over 16,000 law enforcement personnel from around the world.

Once again, and in closing, I want to thank Mr. Fabio Massa, and all of you who coordinated this event, and for my invitation to present this information to you today.

Ciao!

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