

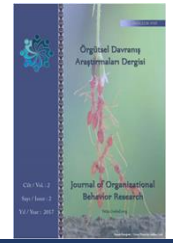


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THE ROLE OF NEW TECHNOLOGY IN THE MATERIAL EFFECTS OF THEFT

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ABSTRACT

One of the main pillars of any criminal case is the evidence that leads the judge to convict or acquit the accused. It is impossible to provide evidence without paying attention to the works discovered at the crime scene. On the other hand, crimes generally occur in a space and time that leaves traces of the crime. Therefore, sufficient attention, accuracy, speed, and proper performance in preserving, maintaining, recording and transferring the traces of crime, including theft, play an important role in convicting the accused. , securing the rights of the victims and finally achieving social justice.

Not paying attention to the effects of crime, exactly "means ignoring the rights of the injured, and if this weakness becomes widespread, social justice in the society will be weakened and the hope for the implementation of justice will disappear.

Paying too much attention to the accused's confession causes the rights of the victims to be damaged in some other way and ultimately "social justice" to be jeopardized. Because it makes the mind not go to the evidence of the crime and only pay attention to the accused. However, it should be known that according to Article 211 of the Islamic Penal Code, even if the accused denies the accusation, the court can convict or acquit the accused based on the available evidence.

But paying attention to proof reasons without paying attention to new technology is a difficult matter. Therefore, we intend to present a summary of new achievements in the direction of exploiting the material works of the scene.

Keywords: *technology. Material effects of the crime, proof of theft*

COLLECTION OF WORKS

Collecting the material effects of the crime is very important because failure to do so may lead to the escape of the criminal and the failure to realize social justice, and ultimately result in further social damage. "One day, one of the workers went to the top of the barn, one of the rotten beams broke and the unfortunate man fell into the barn and died. The farmer who owns the barn is prosecuted for manslaughter, but before the trial of the rotten beams and boards The warehouse is removed and replaced with new and strong materials, unaware that the police have been taking pictures of the scene since the first day. 1

Considering this importance, one should try to send expert people to the crime scene, and in case of their absence, one should wait for them so that the traces are not destroyed. The scene investigation officers must be equipped with direction finder and fingerprint tool. The purpose of having the direction of the view, especially in the preparation of sketches, is to be able to draw the correct and precise direction. It is easy to enter the scene of some crimes, but it is difficult to get out of them. Orientation tools help the officers in solving this problem. In one case, armed robbers with a history had created tunnel-like chambers and lived there. The police was aware of their location and position, but due to the lack of aristocracy in the place and the special

situation there, it was difficult to discover the stolen property and arrest the thieves. Fingerprinting tools such as cameras, stamps, spoons, etc. are necessary for exploiting and sampling fingerprints in the scene. However, the traces are not always visible in the scene, and sometimes tools must be used in the crime scene to see the traces. For example: crime scene investigators to use the properties of ultraviolet light with a cheap and new tool shine filtered light on evidence covered with fluorescent powder and the effect of its reflection appears immediately. . Then the documents are exposed to glue vapor and then powder. After that, the document can be seen under an ultraviolet light source. 2

Considering the price of this tool, it is not difficult for the police force to get this tool.

Sometimes it is necessary to use a thermal imaging device at the scene of the robbery. If there is heat generated in the scene, this device will easily display the subject. So, if a thief claims that his accomplice violated a weapon with a weapon and he did nothing wrong, this tool can be used to check his claim.

Many robberies happen at night and the thief carefully assesses the scene beforehand, so he has more knowledge of the scene and its details than the police, so the police are faced with one of the most likely problems, lack of mastery of the place. And lack of visibility is enough.

Nowadays, with night vision technology, you can easily turn night into day. Therefore, to examine the scene, the above tool is also fruitful. Having this tool is not only useful for detecting crimes, but also increases the military power of the agents in general. With this approach, twofold emphasis should be placed on the preparation of this tool because the security of the police and their offensive and defensive power will be doubled.

According to the location of the theft and the stolen property, the police must have a metal detector along with other devices. So if a person is suspected of stealing gold, whether he is arrested later or at the scene of the crime, in both A careful investigation of the scene may bring us closer to the discovery of the missing gold, especially since the precious metals may be swallowed or, due to the small weight and volume of the precious metals, essentially "missing" or the thief or the complainant may falsely claim it as missing or the complainant In order to convict a thief who has been convicted of other thefts, he should claim that his jewelry was stolen by the thief, while basically "the gold was not there, and in this way, the conditions of proving the crime will be difficult for the victim and the right will never be vindicated."

Another important point that should be taken into account regarding the collection of evidence is the health of the personnel and the observance of safety measures at the scene, contact with suspicious liquids and substances should not be made. Rather, they should be poured into metal containers and sent to the laboratory after sealing. Smelling substances is also dangerous. Materials should not be poured into disposable plastic or glass containers because these materials may break the container. Care should be taken in choosing metal containers so that chemicals do not react with the container. "There is less than 0.1 chance that an employee will be infected with the AIDS virus while working. Hepatitis B virus is found in human blood, urine, semen, cerebrospinal fluid, vaginal secretions and oral saliva. A safe and effective vaccine for prevention There is hepatitis B" 3

The higher the visibility of the crime, i.e. the more obvious it is, the more likely it is that the traces will be lost. "One of the factors that increase the visibility of crimes is the large population and bureaucratization, etc. 4" Therefore, in these crimes, gathering evidence should be



accelerated. The more different people are present at the crime scene, the more difficult it will be to examine the evidence and proof of the crime, because the investigation of the crime scene, the correct recording of the crime, and the focus of the relevant people on the key points will be less.

Among the other tools that should be used to investigate the crime scene is the geographic information system." Based on this system, by using spatial and descriptive data and with the help of relevant software, it provides the ability to extract useful information through analysis."⁵

"Also, if a thief has used explosives to break a charm or poisonous substances to poison people, a chromatography device can be used to identify the constituents of those substances."⁶

In aerial photography, the police use helicopters or satellites to take pictures of the crime-prone area so that they can control the criminals who run away after the robbery. identify and block the escape route."⁷

Works on the ground

When a crime occurs, the probability of leaving a mark on the ground is higher than in other places, because the gravity of the earth pulls the mark down, but walls and trees lack this feature, so you should focus more on the ground. In Iran, testing is not done at the crime scene, but the samples are sent to the laboratory after collection, which has its advantages and disadvantages. Failure to quickly record works, especially liquids, causes evaporation or complete destruction of the work. Therefore, at least you should be very careful in recording the works.

Of course, sometimes you can take action on stage; "For example, with nano sensors, you can be aware of the presence of toxic substances and gases in the crime scene and identify them.

Kurd. Numerous tests at the crime scene help investigators in the preliminary investigation. It is obvious that this is less expensive than full laboratory investigations... The purpose of these tests at the crime scene is to save the time of the investigation officers. is."⁸

Laser radar is one of the tools that can be used for more detailed examination of works on the ground. "Laser radar simultaneously produces both two-dimensional reflective images and three-dimensional radar images."⁹

"This device is nothing but a radio transmitter and receiver that comes in the form of a single device."¹⁰ "This advanced sensor uses infrared energy emitted from a laser transmitter without a scanner to illuminate the entire scene to Create instant 3D images."¹¹

The most important and common traces that fall on the ground are tire and shoe tracks. The most basic task is to take photos of them. In the theft case, one of the agents sees footprints on the ceiling. After the investigation, it is determined that the above footprints were the shoes of the thief, which the wallpaper workers put on the floor before the theft and before the police arrived, they hit them on the ceiling. It distracted the officers. . After taking pictures, we need to remove traces from soft surfaces using latent imprinting." Make molds of tire or shoe tracks found on soil, sand, or snow... Tire tracks can indicate the speed and direction of movement, the manufacturer of equipment and Show the year of its production."¹²

Another effect that is found a lot on the ground and is usually "unimportant" is dirt, the dirt may be suspicious, it is possible that the thief moved the dirt, like using a bag of dirt to climb the wall. In these cases, we should take a sample of the soil and send it to the laboratory, maybe it will be determined where the soil belongs to. Soil differences and similarities are valuable because soils



that are only a few inches apart can be very different. Therefore, take enough samples directly from around the suspicious area at intervals of 5 to 10 feet, of course, this amount depends on the scene. Chemical tests of soil are expensive and not always satisfactory. Soils are usually examined through compaction, X-ray diffraction, and microscopy. And the amount of humidity and temperature can also be recognized. If the police want to quickly determine whether the soil obtained from the suspect matches the soil of the crime scene or not, they can pour an equal amount of each soil separately in a similar container and pour the same amount of water on them and stir, then from Torsent paper should be used to detect their pH level. If the papers are the same color, there is a high probability that the soil is the same, otherwise not. Of course, this test is not very accurate, but the more this test is repeated, the more accurate the result will be. Considering that light, temperature and environment affect the soil and test results, they should be placed in suitable containers, which should be similar containers.

It should be noted that in order to collect dirt, one should pay more attention to the defendant's shoes and the inside of the car, especially in cattle theft. A part of the experiment performed on the soil is as follows: "Using a heavy liquid as a catalyst, each of the washed soil samples is divided into light and heavy particles. As a result of this work, light minerals such as quartzophle spat in They float on the surface of the liquid. While heavy minerals, such as hornblende, are immersed in the liquid. Subsequently, the minerals are separated from each other in the separation funnel, and after drying, they are ready for the next steps." 14

3-3 environmental particles

Sometimes particles or dust are found on the works or clothes or the body of the suspect, these works should also be recorded so that it may be a point of hope in the discovery of the crime. Even if there is a lot of air pollution, clothes - especially bright colors - are affected by the environment, so sometimes we have to record his clothes as well, like when a suspected thief says that I have only been back to Tehran for 2 hours after months, in this Now we are confiscating his clothes and sending them to the laboratory, because his clothes were affected by Tehran's pollution particles. Using the amount of dust on the clothes, it is possible to know whether the suspect was in a humid or stormy area. Using the possible pollen on the clothes, you can make guesses for the area where the suspect was.

glasses

Examining the glass and the direction of breaking and the degree of breaking and how to break them is important in discovering all crimes, because usually the thief is forced to break something in order to reach his goals. We should try not to get our fingerprints on the works." Kasbi was going to his house at night, suddenly someone hit him on the head with a battery and with the help of his friend, he tried to steal Kasib's property, but because Kasbi was armed with a revolver, he started shooting. ..When the accused is arrested, his pockets are searched, a piece of glass is found in his pocket, which after the test was found to match the battery at the scene of the crime, and with this evidence, he was sentenced to 15 years in prison." 14 Collecting the glasses, what creates a problem for us, is not seeing the glasses. Due to the colorless glass, it is very difficult to see them. To solve this problem, you can use a flashlight with red light or similar light. You can do this even during the day, it is better for the light of the flashlight to be red, if



the flashlight is not prone to emitting red light, you can prepare red light and the like by sticking colored nylon or finally colored paper on the flashlight bulb.

Nowadays, it is possible to create a database containing the full names and specifications of all kinds of tools and glass, so that by seeing the works and especially the tools used in the scene, we can get information about them and maybe we can get some clues in this way. Of course, forming a database is not only for this purpose. "Recently" the Intelligence Police of the Islamic Republic of Iran has implemented a plan to remove the mark and serial number of household appliances in order to prevent and prevent all kinds of thefts, which can be useful in preventing armed robberies.¹⁶

In order to prevent crime, it is also suggested to use warning devices for damage to the glass and the passage of light. At least financial institutions should be equipped with this.

"One of the laboratory activities is the microscopic laboratory, followed by physical and optical tests to determine the refractive index on glass. Because the refractive index of light is different for different types of transparent materials.

. Rays with different wavelengths are used to determine the refractive index of light. The specific gravity test is one of the other laboratory activities." ¹⁷

Today, a burglar alarm has been created, which can easily detect if the glass is broken, or if someone passes by, and sounds the alarm. The price of this alarm is small, and there is a special type of it for glass, which sounds the alarm if the glass is broken. It is also easy to install, its problem is that in cases where it is not installed well and the thief is familiar with electronics, he can destroy it, so its installation should be done by experts.



Tools and means

Usually, the thief uses tools to achieve his goals. To prove the crime, we have to pay attention to their works. Not paying attention to the works and tools is like easily returning a dangerous criminal to the arms of the society, which causes a wide-scale reaction. becomes social security. Judicial and law enforcement authorities must use the relevant tools at the right time and place.

. In the rebar theft case, no tools were found at the scene, but after a few hours, people were arrested on charges of the aforementioned theft, who had iron picks. It was possible to send the irons left in the scene to the laboratory with iron pickers and check the contact of the two together and announce the result. So, at least Now, what should be done if there is a large work in the scene that cannot be moved? When the effect of the tool is placed in a large place and the object carrying it is moving, it should be photographed and molded using silicone, special rubbers and other coated devices and equipment. If the work is very large, several molds should be made from it for accurate comparison. When tool traces are found, a sample of metal or paint should be preserved in the laboratory for comparison with the suspected tool." ¹⁸ In addition to the fact that the works and tools must be recorded and sent correctly, it should be noted that in all stages, the angles at which the tool is in contact with the object and the work is placed in the place are very important. Therefore, the suspected tool must be carefully and from Different angles are molded, on each of these molds, the corresponding angle is noted so that each one can be compared with the effect of the scene¹⁹.

"The effect of the exposed tool in the scene of the crime and the exposed sample are placed under the microscope for comparison, so that the traces of the lines of the grooves appear as light shadow lines. Then the lines are arranged to check the compliance aspects. Changes of about 10 degrees in the angle are possible. In general, 60/ 0 lines must match in comparison to be able to say that the exposed instrument is the same instrument that was used in the commission of the crime." 20

In many thefts of iron or large iron equipment, in order to be able to sell it or use it more easily, they try to change the numbers and numbers, which we will go into the details below to know how to make the changes to a certain extent. Let's clarify: The following solution is created to detect changes in irons: "Nitric acid with a concentration of 15% in the amount. Working method: the agents, the laboratory, wash the suspicious place for 60 seconds with a quantity of copper chloride acid, and then They dry the place with cotton or cotton cloth. Then the same place is washed with nitric acid for another 60 seconds and dried again with cloth or cotton. The washing and drying operation must be repeated consecutively and for at least 5 minutes, so that the area under investigation is completely clear. With this method, it is possible to recognize the original or fake engraved or erased number." 21

Software diagnostics tool

The purpose of sending tools and equipment to the laboratory is to determine whether the above tools were used at the crime scene to commit the crime or not. In this way, the range of our suspects will be reduced and the path to the thieves will be clearer. Now, if we have database software regarding the tools and devices that are usually used to enter places and steal property. Sometimes we do not need to refer to the laboratory and we get the answer to our question by referring to the above software. The software of the above information must contain the name and main and secondary features and distinctive features from other devices similar to the place of production - if the device is rare - its strength and weakness. This database must always be updated. The police can prepare such software and provide it to others. Today, a site can be dedicated to this topic and it can be equipped with all kinds of relevant information. Such software must be confidential and not available to the public. The police force and even the investigative judges should see that the use of such facilities will waste their time, energy and money less, so that the field of use and promotion towards the creation of such facilities will increase, and investigations in the old ways will be removed from the minds. to be cleared.

Documentary works

Sometimes, while committing the material element of the theft, the thief leaves behind a document or writing or any kind of traces. This is usually done in robberies where the thief intends to take revenge. It doesn't matter if the lines of the document are written on paper with a typewriter, or if they are engraved on a metal plate, or if the lines are readable by hand on the paper. But it may only find words, phrases, numbers, lines, designs, images, trademarks of the title of the document. 22

Such works must be photographed and sent for identification, while the location of the work must be drawn in a sketch. If there is a suspect, we have to make a search of him, the search should be done in several positions, sitting, standing, and fast and slow. Today, a software has



been prepared that can compare the handwriting of people together or the handwriting of the same person and announce the result. Using the above software accelerates the process of the case, especially in cases where access to an expert is difficult. Of course, it is necessary to create a data bank for this software and place the previously exposed documents in it. If distorted documents are found at the scene, which are important in determining the thief and discovering the theft, the documents can be sent to the laboratory so that they can announce the result by means of a video-spectral device while examining the document. The thief may have written something on the paper, but his accomplice pours bleaching powder on the same writings so that no traces remain, in this case, the above method should be used. The problem that arises in the thefts of intelligent people is that the thief presents his material in typed form. Although this writing can be used to some extent, it is more difficult to identify the thief. According to the type of paper or the checkeredness of the paper, we may be able to identify the thief, in such a way that according to the above information, we identify and track the places of distribution or production of the above documents in order to create clues. "According to graphologists, a line is a work done by an individual, because a person is always affected by his actions and all our movements are affected by our inner powers and subconscious mind, and for this reason, a handwriting can well express movements and emotions. The author reflects it. 23

Of course, it should be known that smart criminals can leave no traces in this field.

"In European countries, calligraphers have an official degree and many universities offer courses and lessons in the field of calligraphy. In these countries, calligraphy is accepted as a scientific study.

Calligraphy is not always accurate. People's behavior and personality are constantly changing. Therefore, if handwriting is used to find a person's personality traits, his handwriting samples should be studied over a period of time, for example several years. Penology is cheaper and faster compared to other tests." 24 One of the limitations of this tool is the need for a handwriting sample obtained at or related to the crime scene.

The narrow point is the possibility of fingerprints on the paper, so paying attention to the text should not distract us from this issue. Another method to approach the thief is the psychology of written works. It means to compare the mental characteristics of the scribe with the personal and mental characteristics of the suspects and in this way, get closer to identification. For example, an artist over 40 years old, the probability that she will try to draw pictures of blood and the like is very low, and for more use of this method, a psychologist and sociologist should be used. If you want to investigate further, you can take a test. He referred to the prepared character profiles of the suspects.

Result

In order to reach the conclusion of the theft case, we have to pay attention to the evidence, including the effects of the crime. Due to the progress of science and the use of new tools by thieves, the relevant authorities should also be equipped with new tools along with the progress of science and the agents should also receive the necessary training. Obviously, not paying enough attention to this issue causes the evidence to prove the crime to be lost, the plaintiff failed to get his right, and in this way the social security is shaken. Especially in organized crimes and



crimes that hurt society's feelings, we need more precision in this matter, because the sense of security in society is an important goal of the judiciary and the police.

Paying attention to modern sciences to achieve these goals is not only directed at the officials, because the property of the lost, especially the people who are more prone to thieves, should also emphasize these sciences in order to protect their property and life. Therefore, it is necessary for the citizens of the society to get familiar with the new methods in this field in order to help the authorities to achieve the above goals.

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