

FORENSICS FRAMEWORK FOR MURDER INVESTIGATION

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ABSTRACT

Description: The article forms the basics for forensic methods of homicide investigation, identifies typical investigative situations and directions for their solution. It is proved that the perpetrator's identity in the structure of the forensic characterization of murders should be investigated in two directions: the first one is to obtain information on the basis of the material and ideal traces; the second one is the study of the perpetrator's identity during the pre-trial investigation. The methodology for investigating homicides is based on typical investigative situations that are developed at the initial stage of criminal proceedings. Typical situations of the initial period of the investigation depend on the actions of the offender, the place, time, conditions of the murder, and the content of the source information. Forensic recommendations for their implementation are proposed.

Keywords: Forensic Methodology, Investigation, Homicide, Perpetrator's Identity, Forensic Characteristics, Investigative (Search) Actions.

INTRODUCTION

The human right to life is fundamental one, guaranteed by leading international regulations. According to Art. 2 of the Convention for the Protection of Human Rights and Fundamental Freedoms of 1950 (European Court of Human Rights, 1950), the right of every individual to life is protected by law. The human right to life is inalienable. The Basic Law of Ukraine – the Constitution of 1996 – not just declares, but also guarantees the protection of human life, human rights and freedoms, entrusting these functions to the State and the law enforcement system.

However, modern socio-economic conditions, moral degradation of the society are determinants of crimes against human life. The methods and tools of criminal activity, the ways of hiding the traces of crime are being improved. These and other circumstances affect both the forensic characterization and the methodology of the homicide investigation.

Homicide is of the greatest public danger among the crimes against life and health of the person, the detection and investigation of which requires a high level of professional training of investigators, operational officers, forensic experts, other law enforcement officers, and their effective co-operation. Thus, we will focus on the basis for forensic methods of homicide investigation within this scientific article.

MATERIALS AND METHODS

Some problematic issues of homicide investigation were considered in the works by Hruzd (2018), Zahorodnii (2017), Zamula (2018). However, nowadays it is worth paying attention to the formation of the basics for forensic methods of homicide investigation, which will be universal in nature and can be used by law enforcement practitioners as a guide in establishing the algorithm for various investigative situations.

Thus, the purpose of the Article is to form the basis for forensic methods of homicide investigation and to identify typical investigative situations and the ways to solve them.

The theoretical foundation for the study is the dialectical and materialist method of scientific knowledge, which was used to analyze the relationships in the mechanism of homicide. The following general scientific methods were also used in the process of the research: formal and logical was applied to clarify the content of structural elements of forensic characteristics of homicide; general and theoretical method helped to interpret the concept of “*identity of the perpetrator*” as the object of forensic investigation; deductive method was used in the study of investigative (search) actions as a means of gathering information about homicide and the identity of the perpetrator; the method of analysis made it possible to reveal the process of proposing the versions of the identity of the perpetrator in situations where there is no evidence of homicide and it is not possible to predict the behaviour of the perpetrator; structural and functional method-was applied in the formation of the foundations of forensic methods of homicide investigation.

RESULT AND DISCUSSION

Forensic tools and methods of collecting, investigating and using trace information should be used, proper organization and planning of investigations, cooperation of investigative, operational and expert units, rapid identification of the victim and the search for the perpetrator are required to ensure the effective investigation of homicides.

One of the structural elements of forensic characteristics is the identity of the perpetrator, without which it is impossible to choose the correct tactics of investigative (search) actions, to detect and investigate the crime.

It is necessary to study social, psychological characteristics of the perpetrator, to analyze the signs of human appearance. The use of physical features has traditionally been applied to solve crimes, search and identify the perpetrators. Currently, the doctrine of the identity of the perpetrator was formed as a separate forensic theory, which has its own conceptual apparatus, methodological tools, practical tasks.

The analysis of empirical data is an important aspect in the study of the identity of the perpetrator. Based on the generalization of a set of practical information, one can make a typical portrait of the perpetrator’s identity; form a theory about the causes and the mechanism of the crime.

The study of the identity of the perpetrator is important for the implementation of preventive activities of law enforcement, forecasting of individual criminal behavior and the development of measures to prevent it.

Finally, the study of the perpetrator’s identity has a clear purpose – to form theoretical positions and build practical recommendations for the investigation of homicides. Such

theoretical provisions and practical recommendations form the basis for the relevant forensic methodology. Recommendations for the study of the perpetrator's identity substantially supplement the algorithms for investigating certain types of crimes, and increase their effectiveness.

The perpetrator's identity is traditionally studied in two ways in criminology. The first one is to obtain information about perpetrator's identity on the basis of both material and ideal traces, as sufficiently informative trace pattern remains in the preparation, commission and concealment of the consequences of homicide. Detected traces allow to establish and detain the perpetrator, and to perform his (her) identification in the future. The second way involves the study of the suspect in the pre-trial investigation in order to form a comprehensive forensic characteristic of the actor and use it during the investigative (search) actions.

Traditional approaches to the study of the perpetrator's identity cause problems in the formation of a typical portrait of the identity of the murderer. After all, using the first approach, allows only drawing probable conclusions about some signs, properties of the person suspected of committing homicide because of the variety of material and ideal traces. According to the second approach, an approximate conclusion on the identity of the suspect and the real murderer is formed. The method used is characterized as a retrospective analysis (directed to the past), i.e. the study of crimes already committed and the perpetrators. The statistical method, the method of system analysis, etc. are also used.

The murderer's identity as an element of forensic characteristics is characterized by a number of features: gender, age, education, financial and social status, professional skills, criminal experience, etc. Besides, scientists include physical data, professional skills, mental integrity of the perpetrator to the important information on the perpetrator's identity (Shepitko, 2009). This information is formed as a system, and is a prerequisite for a model portrait of the murderer.

Volobuiev (2011) considering the forensic characteristics of the perpetrator's identity notes that the complex of personality traits includes everything that can serve to determine the effective areas of identification, search and detection of the perpetrator. This is a number of negative traits (selfishness, cruelty, aggression, contempt for public duty, other people's interests and feelings, greed, vanity, domestic corruption), at the same time – the presence of great willpower, cynicism, mental imbalance, propensity to abuse alcohol, high suspicion and other mental anomalies.

Thus, the forensic characteristics of the murderer allow identifying the following components that create the system: physical, social, demographic, psychological characteristics and properties, mental disorders, criminal record and professional skills, alcohol and drug abuse.

Thus, the murderer's identity has a system of signs and properties that characterize him (her) as the person who committed crime. The perpetrator's identity has common features (gender, age, profession, education, social status, etc.), as well as the unique characteristics, which express the nature and degree of danger to society. For the most part, these characteristics are divided into: socio-demographic; socio-professional; moral and psychological; criminal law. These features constitute a typical structure of the murderer's identity, which is an important component of both forensic characteristics and forensic methods of investigation.

Socio-demographic characteristics include gender, age, education, place of birth and residence, citizenship, etc. These attributes are common to every individual and are not forensic ones in their nature. But in the statistical population of perpetrators of murders, these features

provide important information, without which a complete forensic description of the perpetrator's identity is impossible. For example, based on such a feature as gender, we can conclude that male criminality is significantly higher than female criminality.

A wide range of forensic information is used to detect and investigate murders, to search for the perpetrators, and to select the most effective tactics for conducting investigative (search) actions.

Important is the conclusion that the construction of forensic methods of investigation of certain types of crimes involves the detection and study of additional features, which are based not only on the nature of the offence but also on forensic characteristics of certain types (groups) of crimes. Processing of such data expands scientific ideas about the essence of crimes, creates preconditions for using effective methods, means and receptions of investigation, and promotes the increase of efficiency and optimization of law enforcement activity taking into account their specificity.

Management of significant forensic information is carried out by conducting investigative (search) actions. Typical homicide investigations include: scene inspection and corpse inspection; interrogation of witnesses; interrogation of the suspect; search of the suspect's house or other property; presentation for identification; investigative experiment; conducting forensic examinations and forensic medical examinations.

The methodology for homicide investigation is based on typical investigative situations that develop at the initial stage of criminal proceedings. The content of these situations is determined by the nature of the case, the peculiarities of the initial situation and other factors. It is about:

1. Adverse investigation situations in homicide investigations. These are "*non-obvious*" homicides, which are accompanied by difficulties in identifying the perpetrator and revealing the signs of concealment of the crime. The main focus is on the identification, search and detention of the perpetrator. It is necessary to find out: the nature of the relationship between the suspect and the murdered person; motives and goals of the action; specific traces indicating the identity of the offender; the instruments of crime; the method of committing and concealing the traces of the crime; signs of stolen items and documents.
2. Favorable investigation situations in homicide investigations are characterized by the public nature of procedural acts of criminals, the presence of witnesses to the crime. We are talking about the so-called domestic murders, murders accompanied by torture, beatings. An informative trace is the "key" to the detection and investigation of these crimes. Under these conditions, initial information is collected, the scene is inspected, and eyewitnesses are questioned. These investigative (search) actions create the basis for the next stage of the investigation.

In any investigation situation, the following elements must be proved in the investigation of the homicides:

1. The fact of the homicide, the type of violent death, the time and conditions, under which it occurred;
2. Place, time and circumstances of the crime;
3. The method of preparation, direct commission of homicide, concealment of the consequences of the crime;
4. Data on the identity of the victim, his (her) connections, including with the probable murderer;
5. Purpose, motive of homicide;
6. Characteristics of the perpetrator.

Typical situations of the initial period of the investigation depend on the actions of the perpetrator, place, time, conditions of the homicide, the time elapsed since it was committed, the content of the source information.

Depending on the investigative situation, certain tasks are solved at the initial stage of the homicide investigation. In summary, we should name the main ones:

1. Determining the place of the homicide. If the place of discovery of the corpse is not the place of murder, it can be established during the inspection in the absence of traces that should be (for example, abundant stains and puddles of blood), and in the presence of traces that should not be (traces of corpse dragging, the presence of an inappropriate corpse spots to victim posture);
2. Establishing changes at the scene. Changes at the scene (traces) can be divided into two groups:
 1. Traces formed as a result of the interaction of the perpetrator and the victim, traces of their actions, reflected at the crime scene;
 2. Traces of actions of persons not involved in the investigated case. From the first steps of the investigation, it is important to immediately separate the traces of the first group from the second one. To do this, it is necessary to interview eyewitnesses of the case before the inspection to model the mechanism of the crime:
 1. Identification of the victim. To do this, the documents, notebooks, personal belongings are inspected; the statements of persons capable of recognizing the murdered person by signs of appearance are recorded. After establishing the victim's identity, his (her) portrait of her is formed;
 2. Establishing the cause of the death. Preliminary data can be obtained from a forensic physician after an external examination of the corpse, and the final conclusion is based on the results of forensic examination of the corpse;
 3. Establishing the time of the death, which does not always coincide with the time of bodily harm infliction. It is established by cadavers occurring from the moment of death, depending on the temperature and humidity of the air, precipitation and other environmental conditions;
 4. Establishing the mechanism of the crime and the actions of the perpetrator. Given the possibility of mocking, it is necessary to look for and record the facts that contradict the circumstances of the event (negative circumstances). For example, clean shoes on the feet of a corpse hanging in a loop with abundant dirt around; the presence on the body of a «suicide» of wounds he could not have inflicted himself;
 5. Identification of persons who were at the scene of the homicide or nearby. The solution to this problem is finding witnesses who possess information about the event; perhaps, they saw the murderer shortly before or after the homicide;
 6. Finding out the motives and purpose of the homicide. It is necessary to conclude whether the homicide was intentional or negligent, to establish its purpose and motive by analyzing all the circumstances. It is crucial to study the relationship between the murderer and the victim. The question should be answered: to whom the death of the victim was beneficial and why; what close and distant events could have occurred during the victim's lifetime and what consequences may occur after her death;
 7. Identification of the murderer or his (her) features. Qualitative investigative examination provides grounds for proposing a version of probable suspects with the identification of their sex, height, age, physical development, habits and skills, appearance, blood type, etc. ;
 8. Identification of the deceased. During the examination of the corpse and its forensic examination, all signs of appearance are described by the method of verbal portrait; they are recorded by photography and by making plaster masks of the face, hands and feet. Special signs, tattoos are fixed, the condition of teeth is described and casts of jaws are made, the fingerprint card is prepared. Age, height, racial characteristics, diseases, blood type, the traces of alcohol, drugs, sleeping pills, poisons in the body are revealed. The subtotal content, hand flushes are removed, the remains of food in a stomach are investigated. There are traces that indicate the type of occupation, profession, place of residence, habits. Clothes, shoes, personal belongings are inspected. Micro-particles (fibers of other people's clothes, dust in pockets, dirt and particles of plants on trousers, footwear) are fixed and investigated. Trademarks, labels, traces of repair are found. The card of the unidentified corpse is filled in and sent for check on the account of the missing persons, as well as other circumstances are established (Piaskovskyi, 2020).

Thus, the “*key*” investigative (search) actions in the structure of the forensic methodology of the investigation of homicides are the inspection of the scene and the examination of the corpse. Further, we will form forensic recommendations for their implementation.

First of all, during the inspection of the scene it is necessary to identify, record and remove: traces-reflections: hands, gloves, shoes, teeth, ears, other parts of the body; instruments of crime (cold steel and firearms, explosives, tools of burglary); traces of vehicles; textile fibers and other micro-objects; traces of blood, saliva, sweat and other secretions; traces of bodily harms; traces of the perpetrator’s smell; objects of soil, plant and animal origin; samples of materials and substances that could remain on the body and clothing of the offender; buttons, cigarette butts; things belonging to the perpetrator; documents, etc. As Havryliuk et al. (2021) correctly point out it is increasingly important to use micro-objects to obtain forensic information that, because of their size, is difficult to destroy, falsify to prevent their formation and remain at the crime scene.

Besides, one should:

1. Apply a set of measures to protect the scene of the crime, covering the widest possible range of trace information (available and potentially possible). Specially designed forensic tape is used, as a rule, for this purpose, but in case of extreme necessity, improvised materials can be used;
2. Remove outsiders from the areas (in particular law enforcement officers who do not perform the function of collecting forensic information) to take photographs of the inspection site in accordance with procedural and forensic requirements;
3. Involve additional participants in the investigative (search) action: forensic expert or doctor, with a search dog, explosives specialist;
4. obtain preliminary indicative information on the circumstances of the event, the ways of arrival and departure of the perpetrator, the mechanism of the event from eyewitnesses in order to effectively organize the work during the inspection of the crime scene;
5. Conduct a thorough inspection of the crime scene using the principle “*from general to individual*” in order to find the widest possible range of trace information: biological traces, trace evidence, weapons and traces of its use; smell traces, micro-objects;
6. Use a wide range of forensic tools during the inspection. The unified suitcase designed for investigators, officials conducting initial inquiries, forensic experts is widely used. In Ukraine, it has been modified and received by the authorities under the name of a unified suitcase “Flint-M1”, “Flint-M2” and other configurations (Tsilmak et al., 2015);

It is necessary to agree with the view by Chornous (2020), who claims that technical and forensic support of criminal proceedings should correspond to the best experience of foreign States. 3D scanning technologies for procedural actions have become the part of the daily practice of law enforcement agencies of leading world and European countries. We believe that it is advisable to use laser scanning of the crime scene in addition to “*traditional*” photography and video recording during the investigation of homicides.

Special attention should be paid to the examination of the corpse. Because forensic expert or physician is involved in the examination, it is he (she) who determines whether death has occurred. To do this, forensic experts use several methods: checking the reaction of the pupil to light; listening to the work of the heart and breath; heart rate test; breathe test, etc. There are obvious signs: body temperature, cadaveric asphyxiation and cadaveric stains, putrefaction.

It first conducted general examination of the corpse, and then – a detailed one. The exact location of the corpse is fixed. The description of the corpse is made according to the method of “verbal portrait”. The appearance of the victim may be the subject matter of an expert

examination in order to identify him (her). Thus, currently the study of the signs of human appearance is carried out within the photo technical, portrait and holographic images of the examination. The scientific basis of such examination is criminology, its scientific concepts, the theory of forensic identification, theory and practice of anthropology, anatomy, medicine (Manko, 2017).

Depending on the results obtained, the following general investigative versions can be put forward: death as the result of homicide; death as a result of another crime against person (infliction of bodily harm, torture, rape); death as the result of suicide; death is the result of an accident; natural death.

CONCLUSION

In the investigation of homicides, not only the forensic characterization of the perpetrator plays an important role, but also the connections of this element of the forensic characterization with the following ones: the manner and circumstances of the crime; trace picture, victim of crime.

A comprehensive approach to the study of the perpetrator is necessary not only for an objective investigation of crimes, but also to determine the most appropriate measures to influence the perpetrator, identify and eliminate the causes and conditions of the crime, and choose the right measures for re-education.

It is advisable to compile a psychological portrait of the perpetrator, which gives an idea of his (her) identity, determines the tactics of conducting investigative (search) actions. A composite psychological portrait can be used to search for a suspect whose whereabouts have not yet been established.

Data on the perpetrator's identity is an important structural element of forensic characteristics of homicides and forensic methods of their investigation.

Depending on the results obtained, the following general investigative versions can be put forward: death as the result of homicide; death as a result of another crime against person (infliction of bodily harm, torture, rape); death as the result of suicide; death is the result of an accident; natural death.

These investigative versions are the basis for choosing forensic methods of their investigation; determine the set of investigative (search) and other procedural actions, operational and investigative measures that are carried out to achieve the objectives of criminal proceedings.

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