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ISSUES OF DEVELOPMENT OF FORENSIC TRACOLOGICAL EXAMINATION

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Abstract
The article is devoted to forensic tracological examination, its modern capabilities, and prospects. Despite the fact that forensic tracological examination currently has extensive capabilities, the need for its technical development for a quick and correct investigation of a criminal case has been scientifically substantiated.

Keywords Tracological examination, forensic examination, modern possibilities, prospects of tracological examination; microtribological.

INTRODUCTION

The development of society does not stop it now covers all spheres of public life, and the sphere of combating and preventing crime is no exception.

In the process of investigating crimes, law enforcement agencies should use modern technologies that allow them to identify quickly the person guilty of committing an unlawful act. In this process, there are also great opportunities for forensic traceability examination.

It is worth noting that some foreign authors note that technology is currently developing rapidly, and law enforcement agencies are lagging behind these processes [1]. Such cases lead to the need to study modern possibilities and prospects for the development of forensic cross-examination.

Traceology is a branch of criminology that includes the theoretical foundations of the process of trace formation, the external structure of the objects that left them, the mechanisms of trace formation, methods and means of detecting, recording, and seizing traces, as well as general and particular methods of studying traces to identify cases; it has practical significance in solving and investigating and crime prevention [2, B.44].

Despite the variety of traces currently identified by various forensic scientists, “depending on the type of objects leaving a trace, four main groups of traces are distinguished: human traces (homeoscopy); traces of weapons, tools and production mechanisms (mechanoscopy); traces of vehicles and traces of animals" [3, B.9-10].

Material traces are reflections of mechanical, chemical, biological, thermal (thermal imaging), and other types of impacts on the environment and its individual objects. The subject of the study of traceology is precisely material traces. Imaginary traces, on the other hand, are studied when considering issues of tactics for conducting individual investigative actions.

Currently, traceology has developed a system for classifying material traces on different grounds and at different levels [4]. In particular: traces according to their material condition are divided into: trace objects; trace substances; and trace reflection.

Currently, forensic tracological examination has ample opportunities for studying various material traces of crimes. It should be noted that 30 years ago, the objects of tracological examination were

mainly traces of shoes or vehicles; traces of other objects were not studied during tracological examination due to insufficient knowledge and capabilities for their study.

At present forensic trace examination has a wide range of possibilities for studying various material traces of a crime. It is worth noting that 30 years ago, the objects of trace examination were mainly traces of shoes or vehicles; traces of other objects were not examined during trace examination, since there was not sufficient knowledge and opportunity to study them.

This, in its turn, complicated significantly the investigation and detection of crimes for law enforcement agencies, in particular, it did not allow the preliminary investigation authorities to identify quickly the person responsible for the crime they were investigating. Only with the development of technical progress, with the development of scientifically based research methods - microprints, traces of human skin folds, etc. It is possible to study objects of traceological examination, which is a progressive step in the development of traceological examination and its capabilities.

As a result of the analysis of forensic literature in the field of law enforcement practice and forensic cross-sectional examination, currently forensic cross-sectional examinations, including traceological examination of dental marks, involve the use of special substances to obtain a new cast copy (impression form), which allows to create a model tooth and take samples for comparative studies. Or, if not, then in the practical activities of law enforcement agencies, a new type of film was developed, designed to copy traces, which could make it possible to study the reflections of eardrums [5, p. 162].

The development of computer technology has also influenced the development of forensic science. One of the latest achievements in the field of forensic trace examination is the forensic study of micro-objects. This direction is called microtrasology in traceology, the subject of which is the identification of cases and data of demonstrable importance in a specific criminal case by studying microparticles and microtraces.

It is worth noting that at the moment insufficient attention is paid to the study of microtrasology in the forensic literature. Most modern research concerns certain types of microcracks. Research on the study of microtrasology based on a holistic and unified approach is currently unavailable [6, p. 60].

It is necessary to develop a unified approach to the definition of microtraces and microparticles and their classification, and standards for microtrazological studies.

There are other positive traditions in the development of the theory and practice of forensic forensic examinations. However, nevertheless, it can be noted that today all the possibilities of judicial cross-examination have not yet been demonstrated. In particular, the issues of determining the ownership of shoes to a specific person, according to forensic cross-examination of law enforcement agencies in practical activities, the presence of reflections of the palm of a person's foot in its internal sphere and the age of ejaculation; problems with identifying (remaining) traces reflected on an uneven surface (for example, a concrete floor), and other similar problems are very rare [5. S.163].

There are other positive traditions in the development of the theory and practice of forensic tracological examinations. However, nevertheless, it can be noted that today all the possibilities of judicial cross-examination have not yet been demonstrated. In particular, the issues of determining the ownership of shoes to a specific person, according to forensic cross-examination of law enforcement agencies in practical activities, the presence of reflections of the palm of a person's foot in its internal sphere and the age of ejaculation; problems with identifying (remaining) traces reflected on an uneven surface (for example, a concrete floor), and other similar problems are very rare [5. S.163].

From the above, we can conclude that at the moment there is a need for the technical development of forensic cross-examination to investigate a particular criminal case as quickly and correctly as possible.

Thus, it can be noted that currently, traceological

examination has a wide range of capabilities, but despite this, there is currently a need for the technical and technological development of forensic traceological examination to conduct the fastest and most accurate investigation of a criminal case.

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