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MODERN TYPES OF FORENSIC TECHNIQUE IN THE PREVENTION AND INVESTIGATION OF CRIMES.

В статье исследуется природа криминалистической техники, раскрывается двойной подход в ее понимании, а также отрасли криминалистической техники, современные отрасли криминалистической техники; также приводятся и раскрываются наиболее современные научно-технические средства, изобретенные современными учеными и которые дают еще более точные и детальные ответы на вопросы, поставляемые при предупреждении и расследовании преступлений, также раскрыта и проанализирована правовая база Республики Узбекистан о возможностях и необходимости использования современных научно-технических средств в деятельности правоохранительных органов страны.

In the article the nature of criminalistic technique is explored, the double approach in its understanding, as well as the branches of forensic technique, modern branches of criminalistic technique, is disclosed; the most modern scientific and technical means invented by modern scientists are also disclosed and disclosed, which give even more accurate and detailed answers to the questions supplied in the prevention and investigation of crimes, the legal framework of the Republic of Uzbekistan on the possibilities and necessity of using modern scientific and technical funds in the activities of law enforcement agencies of the country.

With the development of information technology, there is an increasing need for further study and research of the criminalistics section – criminalistic (forensic) techniques, for preventing and combating crime. The concept of "forensic technique", like the subject of criminalistics, its system, other methodologically important concepts and categories at different stages of development of this science was determined in different ways. It was formed historically and underwent changes under the influence of changing ideas about the subject of criminalistics.

The term "criminalistic technique" is examined in two ways. Under forensic technology is understood, on the one hand, the science of criminalistics, and on the other hand - the complex of technical means used in the process of disclosure, investigation and prevention of crimes. [1]

Forensic science as a branch of the science of criminalistics is a system of scientific provisions and developed on their basis technical means, techniques and equipments designed to collect, research and use evidence for the purpose of disclosure, investigation and prevention of crimes.

In its turn, technical and forensic tools are various devices, equipment, instrumentation, tools, supplies and materials used to collect, research and use evidence in the investigation of crimes. The ways and methods of using technical and forensic tools are a system of work rules for the collection and study of evidence. They also include ways to solve certain forensic tasks without using technical means (for example, describing the appearance of a person using the verbal portrait method) [2].

At the present time, forensic science as a branch of the science of criminology is a system that includes general provisions and five subsections called branches. General provisions of forensic techniques define its concept and content, as well as the content of the branches making up this branch of science, the sources of criminalistic technology, its connection with other parts of criminalistics and other sciences. The branches of forensic technology include: forensic photography and video recording, forensic trace analysis, forensic weaponology, forensic documentology (or forensic examination of documents), forensic gaitoscopy.

Now in the criminalistics technique as a section of criminalistics new directions are formed: forensic science of smells, forensic phonoscopy and vocalography and some others. Forensic phonoscopy and vocalography is a forensic doctrine about the methods of using fixed sounds for the detection and prevention of crimes. The terms "phonoscopy" and "vocalography" are used in forensic literature mostly as synonyms, but it seems that the phonoscopy is somewhat wider than the vocalogram, which studies only the sounds of a person's voice.

At present, a number of modern scientific and technical tools have been invented in the world that help to achieve an even more detailed and complete answer to the questions arising in the prevention, detection and investigation of crimes. Below are some of them.

1. Laser Ablation Inductively Coupled Plasma Mass Spectrometry(LA-ICP-MS): When broken glass is involved in a crime, putting together even tiny

pieces can be key to finding important clues like the direction of bullets, the force of impact or the type of weapon used in a crime. Through its highly sensitive isotopic recognition ability, the LA-ICP-MS machine breaks glass samples of almost any size down to their atomic structure. Then, forensic scientists are able to match even the smallest shard of glass found on clothing to a glass sample from a crime scene.

2. Alternative Light Photography: For a forensic nurse, being able to quickly ascertain how much physical damage a patient has suffered can be the difference between life and death. Although they have many tools at their disposal to help make these calls quickly and accurately, Alternative Light Photography is one of the coolest tools to help see damage even before it is visible on the skin. A camera such as the Omnicrome uses blue light and orange filters to clearly show bruising below the skin's surface.

3. Video Spectral Comparator 2000: For crime scene investigators and forensic scientists, this is one of the most valuable forensic technologies available anywhere. With this machine, scientists and investigators can look at a piece of paper and see obscured or hidden writing, determine quality of paper and origin and "lift" indented writing. It is sometimes possible to complete these analyses even after a piece of paper has been so damaged by water or fire that it looks unintelligible to the naked eye.

4. 3D Forensic Facial Reconstruction: Although this forensic technology is not considered the most reliable, it is definitely one of the most interesting available to forensic pathologists, forensic anthropologists and forensic scientists. In this technique, 3D facial reconstruction software takes a real-life human remains and extrapolates a possible physical appearance.

5. Forensic Carbon-14 Dating: Carbon dating has long been used to identify the age of unknown remains for anthropological and archaeological findings. Since the amount of radiocarbon (which is calculated in a Carbon-14 dating) has increased and decreased to distinct levels over the past 50 years, it is now possible to use this technique to identify forensic remains using this same

tool. The only people in the forensic science field that have ready access to Carbon-14 Dating equipment are forensic scientists, usually with a Master's Degree in Forensic Anthropology or Forensic Archaeology.

6. Magnetic Fingerprinting and Automated Fingerprint Identification (AFIS) : With these forensic technologies, crime scene investigators, forensic scientists and police officers can quickly and easily compare a fingerprint at a crime scene with an extensive virtual database. In addition, the incorporation of magnetic fingerprinting dust and no-touch wanders allows investigators to get a perfect impression of fingerprints at a crime scene without contamination. [3]

Further it should be noted that the importance and the need for further investigation of the issues of forensic technology, their wide implementation are also envisaged in a number of regulatory and legal acts of the Republic of Uzbekistan. For example, the Criminal Procedure Code of the Republic of Uzbekistan fixes the provision on the possibility of using scientific and technical means by the relevant officials of the bodies conducting pre-investigation checks, preliminary inquiries and preliminary investigations. [4] The Law of the Republic of Uzbekistan "On Operative-Search Activity" in Article 12 among the rights of bodies conducting operational search activities fixes the right to use video and audio recording, film and photography, as well as other technical means that are safe for human life and health, property of legal entities and individuals, the environment. [5] It should be noted that the most important rule for the use of scientific and technical means in carrying out procedural, investigative or operational actions by law enforcement officers is that the used methods and scientific and technical means should be safe for human life and health, property of individuals and legal entities, and not to harm the environment (Article 196 of Criminal Procedure Code). Also the aforementioned code fixes the rights of the accused, the defender, the victim, the civil plaintiff, the civil defendant to record the information contained in the materials of the criminal case and other documents with the help of technical means (Articles 46, 53, 55, 57 and 59 of Criminal Procedure Code). According to the Article 91 of Criminal Procedure

Code of the republic of Uzbekistan sound recording, video recording, filming, photographing, making casts, impressions, plans, schemes and other methods of displaying information can be used along with the preparation of protocols to consolidate the evidence.

Next, consider the application of scientific and technical means of the internal affairs bodies, whose main task is to ensure public security in the country. Among the latest innovations in the legislation concerning the issue under consideration is the Decree of the President of the Republic of Uzbekistan "On measures to radically increase the efficiency of the activity of the internal affairs bodies, to strengthen their responsibility for ensuring public order, the reliable protection of the rights, freedoms and legitimate interests of citizens" [6], in which one of the most important directions of reforming the system of internal affairs bodies of the Republic of Uzbekistan is a broad introduction of modern information and communication technologies, aimed at increasing the efficiency of all divisions of the internal affairs bodies. According to the above-mentioned decree on the basis of the Expert Forensic Center and the Expert-Explosive Technical Center was established the Main Expert-Forensic Center.

From all that has been said above, we can conclude that further improvement of legislation and legal regulations on this topic is needed, as well as the widespread introduction of information and communication technologies, scientific and technical tools (mentioned in the article), which will result in efficiency and speed of suppression and prevention of crime, preservation of evidence and prevention of their destruction or loss, which in its turn will lead to a reduction and minimization of crime in the country.

List of used literature:

1. Forensic science: a textbook for undergraduate and graduate students / IV Aleksandrov [and others]; Ed. I.V. Aleksandrova. - M.: Publishing House Yurayt, 2016. - 336 p. - (Series: Bachelor and Master., Academic course). p.14
2. Mazurov I.E. Criminalistic technology: the genesis of development of the concept and the problem of application of a conceptual apparatus// Bulletin of Kazan Law Institute of the Ministry of Internal Affairs of Russia, 2013.
3. <https://www.forensicscolleges.com>
4. Criminal Procedure Code of the Republic of Uzbekistan// www.lex.uz The official legal base of the Republic of Uzbekistan
5. The Law of the Republic of Uzbekistan "On Operative-Search Activity"// www.lex.uz The official legal base of the Republic of Uzbekistan
6. Decree of the President of the Republic of Uzbekistan "On measures to radically increase the efficiency of the activity of the internal affairs bodies, to strengthen their responsibility for ensuring public order, the reliable protection of the rights, freedoms and legitimate interests of citizens" dated 10.04.2017 №DP-5005