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## **MODERN CRIMINALISTICS IN THE CONDITIONS OF WAR AND GLOBAL CHALLENGES XXI CENTURY: PROBLEMS TODAY AND DEVELOPMENT PROSPECTS**

**Współczesna kryminalistyka w warunkach wojny i globalnych wyzwaniach  
XXI wieku: dzisiejsze problemy i perspektywy rozwoju**

### **Summary**

The article is devoted to the study of topical problems of criminalistic science in modern conditions of martial law and global threats of the XXI century. The main trends in the formation and development of criminalistics in today's realities are identified and analyzed, and promising areas of its scientific research are outlined. The emergence and formation of new areas of criminalistic science due to scientific and technological progress, the introduction of new technologies, and the need to identify specific traces and collect evidence (genomic, digital, nuclear, etc.) are substantiated. It is noted that it is important to take into account the current trends in the development of criminalistic science associated with the formation of individual branches (directions): medical, genotyping, computer (digital), aerospace and nuclear criminalistics. In the context of the war in Ukraine and large-scale aggression from the Russian Federation, the relevance of the formation of a new scientific criminalistic direction of military criminalistics is noted, and its object, subject, system and tasks are defined.

The problems of the formation and development of European criminalistics and the issues of integration of criminalistics into a single European criminalistic space are analyzed. It is substantiated that further prospects for the formation and development of criminalistic science suggest the need to reboot and modernize the current paradigm. In particular, we are talking about revising and significantly updating the modern understanding of the subject of criminalistics. The expansion of the boundaries of the application of forensic knowledge, which is required not only in the investigation of crimes, and their trial in criminal proceedings but also in the use of criminalistic science in various areas of legal activity (administrative, civil, economic, arbitration proceedings and even in constitutional jurisprudence) is considered and

justified. The problems of the formation and development of European criminalistics and the integration of forensic knowledge into a single European criminalistic space are analyzed.

**Keywords:** criminalistic knowledge, new tasks of criminalistics, war crimes, trends in criminalistics, new branches of criminalistics, military criminalistics, digital criminalistics, nuclear criminalistics, innovations in criminalistics

## Introduction

The military aggression of the Russian Federation and the introduction of martial law in Ukraine had a significant impact on all areas of our lives. The Russian military is committing mass murders of civilians in the territory of Ukraine, the destruction of infrastructure facilities and dwellings of citizens, the rape of women and children, and looting. The crimes committed by the military of the Russian Federation on the territory of our state are extremely large-scale, and their fixation and investigation involve the study of a significant amount of events, the careful collection of a large array of evidence and the conduct of a large number of forensic examinations. In such wartime conditions, new challenges and tasks arose before legal science and, in general, before the legal system, which, in turn, needs to apply the latest approaches to solve them<sup>1,2</sup>. In such a situation, the trend of strengthening the practical orientation of criminalistic developments, innovative products, and their pragmatic orientation to solving practical problems in war conditions, and global threats becomes especially relevant<sup>3</sup>.

Criminalistic, as an applied science integrating modern achievements of science and technology, now directs its scientific potential to create an effective system of criminalistic tools, techniques and technologies, the use of which is aimed at solving complex practical problems, among which the possibilities of using criminalistic knowledge in combating crime are of particular importance, in the realities of the military present and the approach to a single forensic European space<sup>4</sup>. Under such conditions, criminalistic science is called upon to develop the latest tools, techniques and methods aimed at countering criminal offences related to the military aggression of the Russian Federation against Ukraine and other crimes in war conditions. At the same time, the specifics of the formation and application of criminalistic knowledge reflect certain trends in the development of the modern globalized world, challenges,

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<sup>1</sup> І.І. Когутич, *Про окремі виклики криміналістиці та шляхи її усталення*, „Криміналістика і судова експертиза” 2020, no. 65, pp. 5–19.

<sup>2</sup> V. Shepitko, *Theoretical and methodological model of criminalistics and its new directions*, “Theory and Practice of Forensic Science and Criminalistics” 2021, no. 3.

<sup>3</sup> V.M. Shevchuk, *Forensic innovation: Concept, functions, tasks and research prospects*, „Theory and Practice of Forensic Examinations and Criminalistics: Collection of Scientific Papers” 2020, no. 22 (Pravo), pp. 20–40.

<sup>4</sup> В.А. Журавель, В.Ю. Шепітько, *Розвиток криміналістики та судової експертизи в Україні: набліження до єдиного європейського простору*, в: *Правова наука України: сучасний стан, виклики та перспективи розвитку: монографія*, Право, Харків 2021, С. 631–669.

threats and means of eliminating or neutralizing them<sup>5</sup>. In this regard, in the realities today, there is an acute issue of increasing the role of criminalistic science in the formation of evidence and solving a number of other important criminalistic tasks in modern legal practice in the context of war and global threats of the XXI st century.

### **Materials and research methods**

A complex of scientific methods and practice of their applications was used to study the problems of the formation and development of criminalistic science in modern martial law conditions and global threats of formation. So, in the research process, philosophical approaches, general scientific and special scientific methods of scientific knowledge, as well as scientific provisions of the general theory of forensic science, were applied. The dialectical method used at all stages of the study in order to clarify the essence of such criminalistic categories as criminalistic military, criminalistic didactics, the tasks of criminalistics in war conditions, etc., has found its application. A general and universal dialectical method of ascent from the abstract to the concrete and from the concrete to the abstract was used to develop and form the basic concepts of this scientific problem, and their role in the formation of such criminalistic categories and concepts is considered. The categories and techniques of formal logic were widely used in the study: concept, definition, proof and refutation, judgment, analysis, synthesis, comparison, generalization, etc. For the study, other methods traditional for criminalistics and jurisprudence were also used. Taking into account such provisions and various aspects in the formation of a scientific understanding of the problems of the formation and development of forensic science in modern conditions of martial law and global threats should be based on system-structural, technological, activity, functional approaches, which are the methodological foundation for researching trends and revising the modern paradigm of forensic science with the purpose of bringing in line with modern requirements of practice in the face of global threats.

### **Results and discussion**

#### ***The role of criminalistics in the formation of the evidence base for the investigation of war crimes in Ukraine***

In modern realities, one of the most important tasks of criminalistic science is the development and application of technical, tactical, and methodological criminalistic means of techniques and recommendations that allow for collecting, examining and using evidence. It is known that evidence and evidence are the basis of any process, and the effectiveness of the consideration of criminal proceedings in court and the speed of achieving the goals of justice depend on how well and fully the

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<sup>5</sup> V.O. Konovalova, V.M. Shevchuk, *Modern criminalistics in the conditions of war: Problems of adaptation and reload*, in: *Modern Research in World Science: Proceedings of the 5th International Scientific and Practical Conference (August 7–9, 2022)*, SPC – Sci-conf.com.ua, Lviv, Ukraine 2022, pp. 896–903.

evidence base is collected during the pre-trial investigation<sup>6</sup>. Today, in the context of full-scale military aggression by the Russian Federation on the territory of Ukraine, taking into account the modern tasks of adapting criminalistic knowledge to the conditions of martial law and reforming domestic legislation to the international standards of the European Union, the problems of adapting and modernizing the tasks of forensic science to the requirements of modern practice and solving all problems are quite relevant. In modern conditions, forensic science is called upon to develop the latest tools, techniques and methods aimed at countering crimes related to the military aggression of the Russian Federation against Ukraine and other criminal manifestations in war conditions.

According to official statistics from the Office of the Prosecutor General, among the crimes committed during the period of the full-scale invasion of the Russian Federation, the following are the most common: a) crimes of aggression and war crimes – 30,792 crimes were registered (as of August 30, 2022); b) crimes against national security – 14,395 crimes; c) crimes against children (without a full accounting from the places of active hostilities) – 379 children were killed, 735 children were injured; 4) the main case on the aggression of the Russian Federation – 624 suspected representatives of the military-political leadership of the Russian Federation (military command, officials, ministers, deputies, heads of law enforcement agencies, etc.)<sup>7</sup>. The transformation of crime in Ukraine during the war had a significant impact on changing the priorities of the tasks of criminalistics and the specifics of the formation and application of criminalistic knowledge in martial law. The main task of criminalistic science is the development and application of tools, techniques and methods that allow you to collect, investigate, and use evidence in the conditions of war and global threats of our time.

An analysis of the practice of investigating criminal offences of these categories indicates that the investigating authorities and operational units face serious difficulties in their identification, disclosure and investigation, especially in modern conditions of hostilities. They are mainly related to the specifics of the methods of committing such criminal offences, the traces and their consequences, the characteristics of the personality of the offender and the lack of use of scientific, technical, and tactical means and the ability to use special knowledge to identify and investigate them effectively. In addition, the procedure for conducting pre-trial investigation and trial, the process of collecting evidence under martial law, is also seen as complicated. In such conditions, the issue of increasing the role of criminalistics in the formation of the evidence base for the investigation of war crimes committed by the Russian military in Ukraine is acute.

In this regard, a rather interesting example in the history of criminalistics in the collection of evidence in difficult war conditions is the activities of the famous

<sup>6</sup> В.Ю. Шепітько, *Цільове призначення криміналістичних знань і прагнення до європейських стандартів у протидії злочинності*, „Теорія та практика судової експертизи і криміналістики” 2017, Вип. 17 (Харків: Право), С. 5–12.

<sup>7</sup> The Site of the Office of the General Prosecutor of Ukraine: <https://www.gp.gov.ua/>.

German and Swedish criminologist Prof. Doctor of Chemistry Rodolphe Archibald Reiss (1875–1929). In 1914, he arrived in Serbia at the invitation of its government as an expert to investigate the crimes of the Hungarian, German and Bulgarian armies in the First World War. In this regard, of a certain scientific and practical interest are his two works, which are presented in the form of original reports, conclusions and reports, which are a special criminalistic study of the facts that took place during the First World War and their materials became the basis for condemning the actions of the Austrian-Hungarian, German and Bulgarian armies during the First World War. These documents were illustrated with photographs, testimonies and expert studies. R.A. Reiss in 1916 published *Report upon Atrocities Committed by the Austro-Hungarian Army during the First Invasion of Serbia* (London 1916)<sup>8</sup>. In addition, in 1918, another work by Rodolphe Archibald Reiss was published, which was dedicated to the events of the First World War *Les infractions aux lois et conventions de la guerre commises par les ennemis de la Serbie depuis la retraite Serbe de 1915. Résumé de l'enquête exécutée sur le front de Macédoine* (Paris 1918). The materials collected by R.A. Reiss became the evidence base for condemning the actions of the Austro-Hungarian, German and Bulgarian armies during the First World War and were used to condemn the crimes committed during this war<sup>9,10</sup>. In today's realities, it is seen that the practice of using criminalistic knowledge to collect evidence during the war is quite relevant and important.

Today, in the conditions of martial law, the tendency to strengthen the practical orientation of criminalistic developments, innovative products, and their pragmatic orientation towards solving practical problems is of particular importance. It is no coincidence that for another time, Hans Gross called the “practical” goal as the unchanging goal of criminalistic science<sup>11</sup>. Therefore, criminalistic science and each of its sections is faced with tasks related to ensuring the activities of law enforcement agencies and other special subjects of such counteraction with effective forensic recommendations for combating crime under martial law, in particular in identifying, documenting and investigating crimes. Related to the military aggression of the Russian Federation against Ukraine today, the tasks of criminalistic science, depending on theoretical, cognitive and applied problems, can be divided into two levels: a) tasks aimed at improving the theory of criminalistic science; b) tasks aimed at improving law enforcement practice, that is, we are talking about both scientific and practical

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<sup>8</sup> R.A. Reiss, *Report upon Atrocities Committed by the Austro-Hungarian Army during the First Invasion of Serbia*, Simpkin, Marshall, Hamilton, Kent, London 1916, 192 p., [https://collections.unil.ch/resources/images/Exhibitions/Images\\_expo\\_Reiss/4\\_Bibliographie/Reiss\\_1916\\_The\\_Kingdom\\_of\\_Serbia\\_Report.pdf](https://collections.unil.ch/resources/images/Exhibitions/Images_expo_Reiss/4_Bibliographie/Reiss_1916_The_Kingdom_of_Serbia_Report.pdf) (accessed 25.01.2023).

<sup>9</sup> В.Ю. Шепитько, *Рудольф Арчибальд Рейсс*, „Криміналіст першодрукований” 2015, № 10.

<sup>10</sup> В.Ю. Шепитько, *Криміналістика як система наукових знань в умовах глобальних загроз і трансформації злочинності*, „Теорія та практика судової експертизи і криміналістики” 2018, no. 18.

<sup>11</sup> H. Gross, *Gesammelte kriminalistische Aufsätze*, F.C.W. Vogel, Leipzig 1902.

developments for the development of the theory of criminalistics, and about solving problems for law enforcement practice. It seems that these and other important tasks can be solved comprehensively and systematically, in particular, by improving the criminal procedure legislation and developing theoretical and methodological foundations and scientific and practical recommendations for investigating this category of criminal offences. In the current conditions of the war and the implementation of Ukraine's aspirations to become a full member of the European Union, certain changes, modernization and a complete reloading of forensic science are taking place, associated primarily with the emergence of new challenges to society and the need to address priorities in the context of active hostilities on the territory of Ukraine. The formation of criminalistic knowledge in accordance with the needs of practice in the realities of wartime and global upheavals. The change in the paradigm of criminalistic science affects the knowledge system classified as criminalistic.

### **Changing the paradigm of criminalistics in the conditions of war and global threats**

Criminalistics, as an applied science integrating modern achievements of science and technology, now directs its scientific potential to create an effective system of forensic tools, techniques and technologies, the use of which is aimed at solving complex practical problems, among which the possibilities of using criminalistic knowledge in combating crime are of particular importance, in the realities of the military present and the approach to a single forensic European space. Ukraine's integration into the world and the European community requires our state to adapt national legislation to international standards and obligations. This is especially true for criminology and the criminal process, both in the field of combating crime and in the field of protecting important constitutional rights, freedoms and interests of citizens, taking into account the current realities of the development of Ukrainian society.

In today's realities, there is also a change in the vector of criminalistic research in Ukraine and its approximation to a single European space. Therefore, for Ukraine, which has determined the course of accession to the EU, one of the priority areas of activity is the task of bringing the legislation in line with European standards, including in the field of combating crime, the implementation of legal proceedings, the formation and development of a system of military justice bodies<sup>12</sup>. The solution to this issue requires appropriate legislative regulation and the development of the concept of criminalistic support for the activities of military justice bodies, which defines a new direction of research in criminalistic science<sup>13</sup>. Today, the question of

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<sup>12</sup> П.П. Богущкий, *Військова юстиція як правова система: міжнародні стандарти та національні особливості*, в: *Діяльність військової юстиції в умовах збройного конфлікту. Досвід української прокуратури: матеріали Міжнар. наук.- практ. конф., м. Харків, 28 жовтня 2021 р.*, Фенікс, Київ–Одеса 2021.

<sup>13</sup> В.М. Шевчук, *Перезавантаження криміналістики в умовах війни: проблеми, завдання, перспективи*, в: *Проблематика документального оформлення, визначення шкоди та відшкодування збитків, завданих Україні та її громадянам внаслідок збройної агресії*

the formation and development of European criminalistic science and the integration of criminalistic knowledge into a single European criminalistic space has arisen.

Further prospects for the formation and development of the criminalistic doctrine suggest the need to reboot and modernize the existing paradigm of criminalistic science. First, we are talking about updating and taking into account the opinions of many criminalistic scientists (I.I. Kogutich, V.G. Lukashevich, V.M. Stratonov, V.Yu. Shepitko, etc.), in particular, the proposals of V. G. Goncharenko that the knowledge offered by criminalistic science can be successfully adapted and widely used not only for criminal proceedings but also for any other activity related to obtaining and analyzing legally relevant information, that is, in constitutional, civil, economic, administrative processes and etc.<sup>14</sup>. As writes I.I. Kogutich, criminalistic science as a science should study the objectivity (regularity) of the mechanism of a criminal offence or other legal facts, the emergence of information about them, as well as the collection, verification, evaluation and use of information obtained in this activity and specially developed tools and methods for studying legally significant events. It is believed that with this approach to the modern understanding of the subject of forensic science, its knowledge can and, if necessary, should be used both in the field of criminal jurisdiction and in other non-criminal jurisdictional areas, which will significantly increase the current demand for this science<sup>15</sup>.

### **Problems of formation of a new scientific criminalistic direction – military criminalistics**

The sphere of interest of criminalistic science is expanding and penetrating into new areas of knowledge, becoming a cognitive tool that is increasingly used in various areas of activity where it is necessary to know the truth by exploring various materials, ideal traces, as well as other objects. Criminalistic methods and tools are increasingly penetrating into the civil, administrative process and other areas of legal practice. In this regard, noteworthy are the proposals of scientists to expand the traditional understanding of the structure of forensic science with a new section, conditionally called “Applied Criminalistic Science in Legal Practice”, which would be focused on the use of criminalistic capabilities in civil, arbitration, administrative processes and other areas of legal law enforcement. Moreover, as noted by Lithuanian criminalists, the role of criminology is also important not only in the investigation of criminal offences in the work of law enforcement officers, in criminal proceedings but also in administrative, civil, economic, arbitration proceedings and even

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<sup>14</sup> М.В. Даньшин, *Окремі методичні та психологічні аспекти викладання криміналістики*, „Форум права” 2013, nr 2.

<sup>15</sup> Г. Малевски, В.Э. Курапка, И. Тамеле, *Мотивы и ожидания студентов – важный фактор в реализации новой бакалаврской программы*, в: „Право и криминалистика”. *Криміналіст першодрукований: міжнар. наук.-практ. юрид. журнал. № 21-22. 2021*, Апостіль, Харків 2021.

in constitutional. Therefore, we are talking about revising, modernizing and significantly updating the modern understanding of the subject of criminalistic science and expanding the boundaries of the application of forensic knowledge in various areas of legal activity. In the conditions of war and modern European integration processes, criminalistic science is being rebooted, connected, first of all, with the emergence of new challenges for the criminal justice system and the need to solve priority tasks in the conditions of active hostilities on the territory of Ukraine, the formation of criminalistic knowledge in accordance with the needs of the practice. Under such conditions, criminalistic science is called upon to develop the latest tools, techniques and methods aimed at countering criminal offences related to the military aggression of the Russian Federation against Ukraine and other crimes in war conditions. A separate area in criminalistic science should be the development of a system of criminalistic investigation techniques<sup>16, 17</sup>, activation of the development of technical and criminalistic support<sup>18</sup>, application of special knowledge<sup>19</sup>, protection of information sources and problems of information security<sup>20, 21</sup>. In fact, we can state the formation of a new scientific criminalistic direction of *military criminalistics*<sup>22</sup>.

It should be noted that in the history of criminalistics, there were attempts to form the idea of “military field criminalistics”, and “military applied criminalistics”<sup>23, 24</sup>. In our opinion, the proposed terms somewhat narrow the understanding of the subject, system and tasks of military criminalistics. So, for example, according to the understanding of military field criminalistics, it is necessary to take into account the fact that the very term “field criminalistics”, as noted in the criminalistic literature,

<sup>16</sup> Б.В. Щур, *Теоретичні основи формування та застосування криміналістичних методик: монографія*, Харків юридичний, Харків 2010.

<sup>17</sup> V.M. Shevchuk, *Kryminalistyka: tradytsii, novatsii, perspektyvy: dobirka nauk. pr.; uporiad.* N.A. Chmutova, Pravo, Kharkiv 2020.

<sup>18</sup> V. Shevchuk, *Innovative optimization directions of investigative (detective) activity in modern condition*, “Theory and Practice of Forensic Science and Criminalistics” 2021, Issue 2(24), pp. 8–25.

<sup>19</sup> V.R. Ackermann, V.E. Kurapka, H. Malewski, V. Shepitko, *Schaffung eines einheitlichen europaischen Kriminialistischen Raumes: Die Tatigkeit offentlicher Organisationen zur Starkung der internationalen Beziehungen*, „Kriminalistik” 2020, no. 6.

<sup>20</sup> P. Bilenchuk, *Kryminalistyka ta sudove ekspertoznavstvo na suchasnomu etapi rozvytku*, „Yurydychnyi visnyk Ukrainy” 2019.

<sup>21</sup> P. Bilenchuk, T. Obikhod, *Nebezpeky yadernoi zlochynnosti: analiz vitchyznianoho i mizhnarodnoho zakonodavstva*, „Yurydychnyi visnyk Ukrainy” 2017.

<sup>22</sup> V.M. Shevchuk, *The role of criminalistics in improving the efficiency of the investigation of war crimes committed by military of the RF in Ukraine*, in: *Scientific Collection «InterConf», (122): with the Proceedings of the 1st International Scientific and Practical Conference «Diversity and Inclusion in Scientific Area» (August 26–28, 2022)*, Ceac Polonia, Warsaw 2022.

<sup>23</sup> H. Grigoryan, *Overcoming the psychological problems of military investigators through algorithmization of war crimes investigations*, „Turismo – Estudos e Praticas” 2021, no. 1.

<sup>24</sup> С.В. Маликов, *К вопросу о концепции военно-полевой криминалистики*, „Вестник военного права” 2016, № 1, С. 29–34.



is debatable and conditional since by it we quite conditionally understand and mean those technical and criminalistic means and methods of working with evidence that is used or can be used not in the investigator's office or in the expert's laboratory, but directly in the field – at the scene for its examination or in the performance of other investigative actions or research expert operations at this place<sup>25</sup>. However, these questions, as we see, are far from exhausting the problems of military criminalistics. Of considerable interest, both in scientific and practical terms is the analysis and solution of other problems that require research in this specific field of knowledge.

In our opinion, the content of the scientific concept of military criminalistics should include ideas and theoretical provisions about the object of research, the system of knowledge, the content of individual elements, the place in the system of scientific knowledge, the significance for the theory and practice of investigative work, and the tasks of further scientific research. The object of study of military criminology is the patterns of collection, research and use of evidence in the investigation of crimes occurring in areas of armed conflict, active hostilities and military aggression. The object of military forensics, to a certain extent, determines its system, which includes scientifically substantiated and tested in-practice forensic provisions and recommendations for organizing the detection, documentation and investigation of crimes committed in areas of active hostilities, armed conflict in war conditions, which determine the development and application of theoretical, methodological foundations, the choice and application of means, methods and techniques of forensic technology, tactics and methods of investigating crimes, taking into account the specific conditions of activity – in conditions of martial law and hostilities in a certain territory of the state. One of the main tasks of military criminalistics is the development, formation and application of a system of means, methods, techniques and measures of forensic support for countering the commission of such a criminal offence, which is complex in nature and should cover theoretical and methodological, technical and criminalistic, tactical and organizational and methodological and criminalistic search directions. Theoretical and methodological foundations of military criminalistics include general scientific issues related to the development of the concept, subject, system and tasks of military criminalistics, and its place in the system of criminalistic science. Important areas of such scientific research can be the development of such scientific problems as the methodology of military criminalistics, the course system of military criminalistics, innovations in criminalistic didactics when teaching military criminalistics, etc. In this case, we can talk about military criminalistics as a new scientific direction in criminalistic doctrine, which has significant prospects and requires further scientific research in criminalistic science.

In the direction of technical and criminalistic support of military criminalistics, scientific developments and research on the creation and implementation of innovative criminalistic products aimed at optimizing the fight against crime in the military sphere, documenting and investigating, identifying, documenting and investigating crimes related to the military aggression of the Russian Federation against Ukraine

<sup>25</sup> R.S. Belkyn, *Kurs krymynalystyky. V 3-kh tomakh*, vol. 3: M., Yuryst, Moskva 1997.

are being updated. Such innovative products include new technical and criminalistic tools developed or adapted to the tasks and needs of combating war crime and other criminal manifestations in war conditions, modern information technologies, electronic knowledge bases, methods of fixing, analyzing, evaluating and collecting evidence in addition. Therefore, modern biometric identification systems based on human characteristics (electronic human identification systems based on biometric features – fingerprints, appearance features, iris pattern, DNA, signs of gait, handwriting) can be applied to the needs of military criminalistics. Relevant now are the possibilities of using unmanned aerial vehicles, surveillance and video control systems, electronic control over the movement of persons in space and air, identification systems for face recognition, etc. Consequently, work on the use of artificial intelligence is being significantly intensified to ensure the types of activities under consideration and to solve practical problems, both in the field of law enforcement and in the fight against modern crime in war conditions.

In the tactical and criminalistic support of military criminalistics, promising areas of research should be the development of tactical foundations for conducting procedural actions and forensic recommendations in war conditions. They may be related to the specifics of the tactics of conducting individual investigative (search) and covert investigative (search) actions under martial law, military operations, etc. This situation necessitates the development of new tactics, revision of the possibilities of tactical combinations and tactical operations, investigative (detective) algorithms, etc. Important areas of such research in criminalistic tactics are the problems of developing tactics for conducting actions in which participants (suspects, witnesses, victims, etc.) were persons from the occupied territories or from areas of active hostilities, as well as prisoners of war.

In the methodological and criminalistic support of military criminalistics, such areas are closely related to changes in criminal and criminal procedural legislation since such changes require the improvement of existing methods for investigating criminal offences and the development of new criminalistic investigation methods<sup>26</sup>. Innovative developments in this area of criminalistic science should be aimed at researching methods for investigating new types of criminal offences, tactical operations, investigative (search) algorithms, checking standard investigative versions, and developing criminalistic characteristics of criminal offences<sup>27</sup> and others. The modern realities of the war in Ukraine require criminalistic science to improve, develop and put into practice a system of criminalistic methods for investigating certain types of crimes committed by military personnel in areas of armed conflict, in particular, investigating unauthorized departure from a military unit (service station) and

<sup>26</sup> Ю.М. Черноус, *Криміналістичне забезпечення розслідування злочинів: монографія*, ТОВ «Нілан-ЛТД», Вінниця 2017.

<sup>27</sup> V.O. Konovalova, V.M. Shevchuk, *Prospective directions of research of innovations of separate criminalistic methodics*, in: *Scientific Practice: Modern and Classical Research Methods: Collection of Scientific Papers «ΛΟΓΟΣ»* (Vol. 1), February 26, 2021, European Scientific Platform, Boston–Vinnytsia 2021.

desertions; investigation of military service evasion through self-mutilation; investigation of crimes committed by military personnel against the civilian population; investigation of the theft of weapons and ammunition carried out by military personnel; investigation of abuse of power carried out by commanders of military units, etc.

In addition, scientific research on the methodology for investigating crimes against the foundations of the national security of Ukraine is being updated; war crimes committed by the military of the Russian Federation in Ukraine; crimes against peace, human security and international law and order; crimes related to the illegal use of humanitarian aid, charitable donations or gratuitous aid and illegal crossing of the state border of Ukraine, etc. The widespread dissemination of information computer technologies contributes to the further development of the algorithmization of the process of investigating a criminal offence and ensuring the efficiency and effectiveness of the trial<sup>28</sup>. Moreover, in modern conditions, there are significant changes in the criminalistic support of law enforcement agencies associated with the processes of informatization of society and the introduction of innovative approaches using modern information, digital, telecommunication and other technologies. In this case, we can talk about the emergence of a new direction in forensics – “digital criminalistics”<sup>29</sup>, the development and implementation of which seems quite promising in the development of forensic knowledge and criminalistic activities<sup>30</sup>. Therefore, it is important to take into account the current trends in the development of forensic science associated with the formation of certain branches (directions): *medical, genotyping, computer (digital), aerospace and nuclear criminalistics*. The formation of new areas of criminalistic science is due to scientific and technological progress, the introduction of new technologies, and the need to identify specific traces and collect evidence (genomic, digital, nuclear, etc.).

### **Formation and application of innovative approaches in the criminalistic training of future lawyers**

Given the above, there is a need to introduce innovative technologies into the educational process, which will help prepare highly qualified, competitive lawyers at the European level. These trends in the development of forensic science pose new challenges and prospects for the system of legal education and criminalistic science as a scientific and applied legal science, which is at the forefront of the struggle. An important problem is the formation and application of innovative approaches in

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<sup>28</sup> В.А. Журавель, *Окремі методики в системі криміналістичних знань*, „Науковий вісник Львівської комерційної академії. Серія: Юридична” 2015, Вип. 1.

<sup>29</sup> V. Shepitko, *The formation of digital criminalistics as a strategic direction for the development of science*, in: *17 Medzinarodný Kongres Kriminológia a Forenzná Veda: Veda, Vzdelávanie, Prax. Zborník Príspevkov*, Bratislava 2021.

<sup>30</sup> V. Shevchuk, *Modern problems of formation and prospects for researching the concept of criminalistic innovation*, in: *Tendances scientifiques de la recherche fondamentale et appliquée: collection de papiers scientifiques «ΛΟΓΟΣ»* (Vol. 2), 30 octobre, 2020, Plateforme scientifique européenne, Strasbourg 2020.

forensic training and education. In this regard, V.Yu. Shepitko correctly emphasizes that in modern conditions in Ukraine, significant attention should be paid to the problems of criminalistic didactics<sup>31</sup>.

In modern conditions, for a comprehensive study of the problems of improving the methodology of teaching criminalistics and the features of the criminalistic training of future lawyers, it is necessary to answer the following questions: 1) clearly what to teach (training content); 2) how to teach (forms, methods, organization of training); 3) who needs to be taught; 4) who will train students and cadets. At the same time, it is important to take into account that the content of criminalistic training and education, and, in turn, criminalistic didactics should be considered through the prism of the subject of criminalistic science and the trends of its modern development. Forensic didactics should explore the patterns of assimilation of criminalistic knowledge, mastery of skills and abilities in forensic science and, in turn, determines the volume, content and structure of the criminalistic training course<sup>32</sup>. Taking into account the modern tasks of adapting criminalistic knowledge to the conditions of martial law and reforming domestic legislation to the international standards of the European Union, the problems of adapting and modernizing criminalistic knowledge to modern practice requirements are quite relevant. Therefore, it is seen that among the most promising areas of innovative scientific research in criminalistic science are: documenting and investigating war crimes committed by the military of the Russian Federation in Ukraine; search for the missing and identification of those killed in the war in Ukraine; the use of digital criminalistics in identifying, fixing and investigating war crimes committed by the military of the Russian Federation in Ukraine; intensifying the use of special knowledge and conducting criminalistic research to determine the amount of damage to individuals and legal entities incurred as a result of Russian aggression; development and application of innovative criminalistic products to improve the effectiveness of the investigation of war crimes; forensic support for the activities of the International Criminal Court<sup>33</sup>; construction and application of an appropriate system of separate forensic methods of war crimes and other criminal offenses related to the military aggression of the Russian Federation against Ukraine<sup>34</sup>.

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<sup>31</sup> V. Shepitko, *Formation of criminalistics and forensic didactics in Ukrainian*, “Theory and Practice of Forensic Science and Criminalistics” 2020, no. 22(2).

<sup>32</sup> В.Ю. Шепітько, *Дидактика криміналістична. Велика українська юридична енциклопедія: у 20 т. / НАПрН України, Ін-т держави і права ім. В.М. Корецького НАН України, Нац. юрид. ун-т імені Ярослава Мудрого; ред. кол.: В. Я. Тацій та ін. Т. 20: Криміналістика, судова експертиза, юридична психологія, редкол. В.Ю. Шепітько (голова) та ін., Харків 2018.*

<sup>33</sup> V. Shevchuk, *Problems of criminalistic support of the practice of the International Criminal Court in Ukraine*, in: *Do desenvolvimento mundial como resultado de realizações em ciência e investigação científica: Coleção de trabalhos científicos «ΛΟΓΟΣ»* (Vol. 4), 9 de outubro de 2020, Lisboa, Portugal, 2020.

<sup>34</sup> О.М. Дуфенюк, *Розслідування воєнних злочинів в Україні: виклики, стандарти, інновації*, “Baltic Journal of Legal and Social Sciences” 2022, no. 1.

etc. It is assumed that these issues should be taken into account in the formation of programs and academic disciplines and in the improvement of the methodology of teaching criminalistics and the formation of criminalistic didactics in modern conditions of war, global threats and European integration processes.

## Conclusions

Thus, in the realities of the present and in wartime conditions, new tasks of criminalistic science appear before forensic science, and the paradigm of criminalistic doctrine changes, affecting the features of the formation and application of the system of criminalistic knowledge. Therefore, in modern conditions of war, the transformation of crime, and European integration processes, it is necessary to attract and apply qualitatively new, innovative approaches to ensure the effective mastery of criminalistic knowledge, skills and abilities of future lawyers and now practitioners. We are talking, in particular, about the development and implementation of modern educational technologies, improving the content and methods of teaching criminalistic science as a European science that successfully solves new problems and counteracts modern challenges in the context of war and global threats of the XXIst century. The solution to such problems involves the creation and implementation of an effective system of measures for forensic support to counter such threats and the adoption of urgent measures aimed at their neutralization.

Of particular importance and relevance in such a situation is the criminalistic education and forensic training of future lawyers, which should take into account current trends and tasks of adapting criminalistic knowledge to the conditions of martial law, reforming domestic legislation to the international standards of the European Union and the emergence of new branches (directions) of forensic science. At the same time, the strengthening and activation of the practical component in the teaching of criminalistic science acquires great significance. It is important to take into account the current trends in the development of criminalistic science associated with the formation of its new areas: digital, medical, aerospace, genotypescopy, computer, cybersecurity, nuclear and military criminalistics, which will significantly increase the role and applied value of the application of criminalistic knowledge in modern wartime realities and global threats to world civilization.

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