

MILITARY CRIMINALISTICS: HISTORY, STAGES OF FORMATION AND DEVELOPMENT PROSPECTS

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INTRODUCTION

The full-scale invasion of the Russian occupation forces on the territory of Ukraine on February 24, 2022 and the introduction of martial law in Ukraine had a significant impact on all areas of society, including the criminal justice system. The crimes committed by the military of the Russian Federation on the territory of Ukraine are extremely large-scale, and their fixation, documentation and investigation require the study of a significant mass of evidentiary information, the involvement of experts, specialists and the conduct of a huge number of forensic examinations¹. On the territory of Ukraine, the Russian military commits mass murders of civilians, destruction of infrastructure and citizens' homes, rape of women and children, looting, which require documentation, effective investigation, trial and criminal prosecution of the guilty parties².

Today's realities, related to the armed Russian aggression of Ukraine, active processes of digitalization and Europeanization of our country, determine the current trends in the development of legal science, including criminalistics in terms of the formation of promising innovative directions for the application of criminalistic knowledge. In such wartime conditions, legal science, and in general, the legal system, faced new challenges, threats and tasks, which, in turn, require the use of new approaches to solve them³. In such a situation, the tendency to strengthen the practical

¹ Matulienė S., Shevchuk V., & Baltrūnienė J. Artificial Intelligence in Law Enforcement and Justice Bodies: Domestic and European Experience. *Theory and Practice of Forensic Science and Criminalistics*, 2023, 29(4). Pp. 12–46.

² Shevchuk V. Criminalistic means, methods and technologies of combating crimes in the field of national security in the context of european integration. *Legal support of European integration: general legal and sectoral aspect*: Scientific monograph. Riga, Latvia : «Baltija Publishing», 2024. Pp. 582–604. URL: <http://baltijapublishing.lv/omp/index.php/bp/catalog/book/451>

³ Дуфенюк О. М. Розслідування воєнних злочинів в Україні: виклики, стандарти, інновації. *Baltic Journal of Legal and Social Sciences*. 2022. № 1. С. 46–56. DOI <https://doi.org/10.30525/2592-8813-2022-1-6>

orientation of forensic developments, innovative products, their pragmatic orientation to solving practical tasks in conditions of war⁴.

Under such conditions, today's challenges and threats necessitate the formation and introduction of innovative approaches in criminalistic protection against war crimes and military criminal offenses in modern realities. Such challenges today determine the modern trends in the development of criminalistics, which is at the forefront of the fight against crime⁵. At the same time, it is important to take into account that criminalistics in Ukraine has chosen a European vector of development, therefore European approaches are found in various areas of criminalistics, including in the application of standards of evidence during criminal proceedings⁶.

Therefore, today 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 quite acute. In such conditions, the problems of forensic investigation of war crimes during the war, taking into account the international standards of investigation, evidence and trial, and the modern realities of the significant spread of digital technologies in investigative, judicial and expert practice, become particularly relevant and significant⁷. In fact, it is possible to state the formation of a new scientific criminalistic direction – military criminalistics, which today, in the realities of wartime, represents a strategic direction in the development of criminalistics and determines the need and prospects for conducting modern research.

Results and discussion. In the conditions of full-scale military aggression by the Russian Federation on the territory of Ukraine, the

⁴ Shevchuk V. M. Tasks of criminalistics in the conditions of military threats and digital technologies. *Criminalistics and forensic expertology: science, studies, practice* 19 (compiler Gabriele Juodkaite-Granskiene; scientific-editorial committee: Henryk Malewski (chairman) and others) Forensic Science Centre of Lithuania, Brno, 2023. Pp. 81–88.

⁵ Orzhunska E. Military forensics: research perspectives. *Scientific innovations in law amidst the impact of the Russian-Ukrainian war on the legal system: International scientific conference* (February 7–8, 2024. Riga, the Republic of Latvia). Riga, Latvia : Baltija Publishing, 2024. Pp. 180–182.

⁶ Shepitko V. Yu. The formation of the doctrine of criminalistics and forensic examination in Ukraine is the way to a unified European forensic space. *Law of Ukraine*. 2022, 2. Pp. 83.

⁷ Shevchuk V. Trends in the formation of criminalistic didactics in the conditions of global threats and digital technologies. *Quo vadis, kriminalistika? Liber Amicorum profesoriui Henryk Malewski*. Collective monography. Vilnius, Lithuanian association of criminalists, Mykolas Romeris University, 2023. Pp. 116–155.

problems of adapting and modernizing the tasks of forensics to the requirements of modern practice and solving all the tasks facing forensic science and criminal justice bodies are becoming quite urgent today⁸. Under such circumstances, criminology is currently being rebooted, primarily connected with the emergence of new challenges to the criminal justice system and the need to solve the priority tasks in the conditions of military operations on the territory of Ukraine, the formation of criminalistic knowledge in accordance with the needs of practice⁹. In modern conditions, criminology is called upon to develop the latest means, techniques and methods aimed at combating crimes related to the military aggression of the RF against Ukraine and other criminal manifestations in wartime conditions. All this necessitates the development and formation of military criminology as a strategic direction in the development of modern criminalistics.

1. Scientific background and history of the emergence, development and formation of military criminalistics

The emergence and formation of military criminalistics, as a system of scientific knowledge and a specific type of practical activity, in its development has gone through a complex and long path, where, as can be seen, the following stages can be conventionally distinguished: 1) accumulation of the necessary scientific potential for the birth of an idea and the emergence of scientific knowledge in the field of military criminology (the end of the 19th century and up to the 60s of the 20th century); 2) formation of conceptual foundations regarding the need to create theoretical and practical foundations of military forensics (70s of the 20th century – the beginning of the 21st century); 3) formation and development of ideas about the methodological foundations and formation of the scientific concept of military forensics, its tasks, functional purpose, place in the system of forensic science (beginning of the 21st century and up to now). Therefore, the further development and

⁸ Журавель В. А. Загальна теорія криміналістики: генеза та сучасний стан : монографія. Харків, 2021. С. 6–7.

⁹ Baltrūnienė Ju., Shevchuk V. Artificial intelligence technologies in law enforcement and justice: Ukrainian and European experience. *Цифрова трансформація кримінального провадження в умовах воєнного стану* : матеріали круглого столу, присвяч. Всеукр. тижню права (м. Харків, 23 груд. 2022 р.); Харків : Право, 2022. С. 135–140.

formation of military criminalistics today is a strategic direction of modern criminalistics¹⁰. Let's briefly consider them.

History and practice show that the formation, development and formation of criminalistic science and military criminalistics are closely related to the name of the outstanding Austrian criminalistic scientist, forensic investigator, doctor of law, Prof. Hans Gustav Adolf Gross (1847–1915)¹¹ – one of the founders, founders of the science of criminalistics – "science for forensic investigators". The main idea of H. Gross in creating a new science of "criminalistics" was to use the latest achievements of science and technology in the fight against crime, to apply the data of natural and technical sciences to the tasks of uncovering and investigating crimes.

It is believed that for the first time the term " criminalistics " to denote the science of solving crimes was proposed by Hans Gross in 1893, who collected scattered information and combined it into a single whole in a work entitled "Manual for forensic investigators, policemen, gendarmes, etc. «Handbuch für Untersuchungsrichter, Polizeibeamte, Gendarmen u. s. w. Graz», and then republished several times in different languages¹². The third edition of this manuscript was named by Hans Gross «Handbuch für Untersuchungsrichter als System der Kriminalistik» (Manual for Forensic Investigators as a Forensic Science System)¹³. This fundamental work became the first textbook on criminalistics – the new science of crime detection, a kind of practical guide in the work of an investigator. Even today, this work does not lose its relevance, it has been translated into almost all European languages, and it continues to be published¹⁴.

The formation and professional development of H. Gros as a forensic investigator, scientist, and practice has its origins and roots primarily connected with military service and his acquisition of significant practical experience as a military investigator. It is known that in 1878, after the

¹⁰ Shevchuk V. Tasks of criminalistics in the conditions of military threats and digital technologies. *Criminalistics and forensic expertology: science, studies, practice* 19. Forensic Science Centre of Lithuania, Criminalists' association of Lithuania. Vilnius, Brno, 2023. Pp. 81–88.

¹¹ Mühlbacher T. Elementary, my Dear Holmes! Hans Gross, Father of Criminalistics, and Arthur Conan Doyle. *A First Printed Criminalist*. 2019. № 18, 11–23.

¹² Gross H. *Handbuch für Untersuchungsrichter, Polizeibeamte, Gendarmen u. s. w. Graz*, 1893. VIII. 620 s.

¹³ Hans Gross. *Handbuch für Untersuchungsrichter als System der Kriminalistik*. 3., Verm. Aufl. Graz: Leuschner & Lubensky, 1899. XIV, 813 s.

¹⁴ Hans Gross. *Podręcznik dla sędziego śledczego jako system kryminalistyki: Opracowanie i przekład / Kasprzak Jerzy*. Warszawa : Difin, 2021. 561 s.

announcement of mobilization in connection with military operations in the border areas of the Austrian Empire, H. Gros went to serve in the army. For three years in a row, from 1878 to 1881, Hans Gross served as a military investigator on the territory of Bosnia, which was occupied by Austria-Hungary¹⁵. He studies Serbian, Croatian, and Russian languages and gains practical experience in investigative work¹⁶.

Hans Gross is rightfully considered not only the "Father of criminalistics", the author of the term "criminalistics", but also one of the founders and founders of criminalistic science and military criminalistics. It is obvious that the scientific works of Hans Gross and, in particular, the fundamental work "Manual (guide) for forensic investigators as a system of criminalistics"¹⁷, and today it is a kind of reference point and practical advisor for investigators, prosecutors, courts, which determines the possibilities of applying criminalistic knowledge in practice¹⁸.

In this sense, V.V. rightly remarks. Yusupov, that the experience of Hans Gross, gained during his army service and work as a military investigator during 1878-1881, had a significant impact on the formation of knowledge and special skills in the investigation of criminal offenses of the founder of the new science of "Criminal Sciences"¹⁹. In his "Manuals (guides) for forensic investigators" of different years, Hans Gross described weapons as instruments of crime; persons who possessed special knowledge of firearms. He devoted a separate chapter to information about weapons, laying the foundation for the formation of forensic weapons science. He described in detail firearms and cold weapons, ammunition. The contemporary approach to the classification of firearms and edged weapons is interesting, in particular, the types of firearms considered to be: rifles, pistols, revolvers. Considerable attention was paid

¹⁵ Kaiser N. Hans Gross und der Kriminaldienst. Zur Bedeutung der kriminalistischen Aus- und Fortbildung damals wie heute. *SIAKJournal*, 2022, 2. Pp. 82–97.

¹⁶ Shevchuk V. M., Konovalova V. O. The scientific legacy of Hans Gross and its influence on the modern development of criminalistics. *Наукові читання пам'яті Ганса Гросса : міжн. наук.-практ. конф. (м. Чернівці, 09.12. 2022 р.)*. Чернівецький нац. ун-т імені Юрія Федьковича, 2022). С. 17–22.

¹⁷ Hans Gross. *Hanbbuch für Untersuchungsrichter als System der Kriminalistik*. 3., Verm. Aufl. Graz : Leuschner & Lubensky, 1899. XIV, 813 s.

¹⁸ Kasprzak Je., Jusupow W. Hans Gross – postać znana i nieznaną. *Studia Prawnoustrojowe*. Olsztyn, Polska, 2021, 51, Pp. 39–56.

¹⁹ Юсупов В. В. Використання у наукових працях Ганса Гросса досвіду власної військової служби: історичний огляд та приклад для сучасних умов. *Наукові читання пам'яті Ганса Гросса : міжн. наук.-практ. конф. (м. Чернівці, 09.12. 2022 р.)*. Чернівецький нац. ун-т імені Юрія Федьковича, 2022. С. 50–54.

to the division of rifles, as the most frequent tools of crime, into: shotguns for shooting pellets; guns for shooting a bullet. These guns were also classified by the number of barrels, the quality of materials, and the design of the fuse. Cold weapons were divided into swords, knives, and spears. These publications describe the way weapons are used, their range, the combat effectiveness of firearms issues of forensic ballistics²⁰.

In this regard, a rather interesting example in the history of criminalistics regarding the collection of evidence in the difficult conditions of war is the activity of the famous German and Swiss criminologist Prof. Doctor of Chemical Sciences Rudolph 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, his two works are of certain scientific and practical interest, which are presented in the form of peculiar reports, conclusions and reports, which were a special forensic investigation of the facts that took place during the First World War, and their materials became the basis for condemnation of the actions of the Austro-Hungarian, German and Bulgarian armies during the First World War. These documents were illustrated with photographs, witness statements and expert research. Rudolf Reiss published in 1916 «Report upon atrocities committed by the Austro-Hungarian army during the First invasion of Serbia» (London, 1916)²¹.

In addition, in 1918 another work by Rudolf 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. Resume de l'enquete execute sur le front de Macedoine» (Paris, 1918). The materials collected by RA 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 that war²². In today's realities, it can be seen that the practice of applying criminalistic knowledge to gather evidentiary information during war is quite relevant and important²³.

²⁰ Hans Gross. *Hanbbuch für Untersuchungsrichter als System der Kriminalistik*. 3. Verm. Aufl. Graz : Leuschner & Lubensky, 1899. XIV, 813 s.

²¹ Reiss R. A. *Report upon atrocities committed by the Austro-Hungarian army during the First invasion of Serbia*. London : Simpkin, Marshall, Hamilton, Kent, 1916. 192 p.

²² Shepitko V. Criminalistics as a system of scientific knowledge in conditions of global threats and crime transformation. *Theory and Practice of Forensic Science and Criminalistics*. Kharkiv «Pravo», 2018. Pp. 18, 9.

²³ Shevchuk V. Current Issues of Criminalistics in Context of War and Global Threats. *Theory and Practice of Forensic Science and Criminalistics*, 2022, 28(3). Pp. 11–27. URL: <https://khrife-journal.org/index.php/journal/article/view/529>

The scientific foundations of military criminalistics were formed both during and after the Second World War. In this regard, the Nuremberg trial was particularly revealing – the trial of the main Hitler war criminals, which took place in Nuremberg (Germany) from November 20, 1945 to October 1, 1946 at the International Tribunal²⁴. It is known that during the Nuremberg Trials, numerous physical and digital evidences, including numerous photo documents and video footage of military journalists, were presented in court as sources of evidence²⁵. Therefore, international experience should be taken into account in order to work with the evidence base of war crimes²⁶.

Almost fifty years later, the next generation of international ad hoc criminal tribunals appeared, related to armed conflicts in the Balkans (1993) and Rwanda (1994). Digital technologies continued their development, which made it possible to carry out more accurate and clear anthropological studies, DNA examinations, use means of remote intelligence collection, interception of radio broadcasts. The resolution of digital satellite photos became significantly better, which made it possible, for example, to determine the location of forces and assets, to identify "mass graves", to compare places before and after hostilities. It seems that in this way the prosecutors managed to prove war crimes in Srebrenica²⁷. This is a small town in the east of Bosnia and Herzegovina. The Srebrenica Massacre went down in history as one of the largest war crimes in modern European history, committed during the Bosnian War in July 1995, which consisted of the planned mass murder by Bosnian Serbs of about 8,000 Bosnian Muslim males between the ages of 12 and 77. Completed proceedings in international courts proved that the massacre in Srebrenica was not a spontaneous phenomenon, but was planned and carried out in advance. The Hague Tribunal for the former Yugoslavia recognized the massacre in Srebrenica as genocide.

²⁴ Іванов В. М. Нюрнберзький процес: історичне та правове значення (до 70-річчя Міжнародного військового трибуналу). *Часопис Київського університету права*, 3. С. 24–28.

²⁵ Дуфенюк О.М. Розслідування воєнних злочинів в Україні: виклики, стандарти, інновації. *Baltic Journal of Legal and Social Sciences*, 2022, 1. Pp. 46–56. DOI <https://doi.org/10.30525/2592-8813-2022-1-6>

²⁶ Roland P. *The Nuremberg Trials: The Nazis and Their Crimes Against*. London : Arcturus Publishing Limited. 2020. 288 p.

²⁷ Freeman L. Digital Evidence and War Crimes Prosecutions: The Impact of Digital Technologies on International Criminal Investigations and Trials. *Fordham International Law Journal*, 2018, 41(2). Pp. 284–336.

As we can see, a huge array of various forensically significant information, including in the field of knowledge of military criminalistics, requires a constant search and formation of new approaches to the detection and collection of evidence of war crimes²⁸. Among them, the use of artificial intelligence technologies, in particular digital criminalistics and military criminalistics tools, is of particular importance.

Thus, the military aggression of the Russian Federation and the full-scale invasion of the Russian occupying forces on the territory of Ukraine on February 24, 2022 had a significant impact on the transformation of crime in Ukraine and on changing the priorities of the tasks of criminalistics and the peculiarities of the formation and application of forensic knowledge in modern conditions of martial law. The main task of criminalistics is the development and application of tools, techniques and methods that allow collecting, researching and using evidentiary information in conditions of war and global threats. In such conditions, the question of increasing the applied role of military criminalistics for solving new tasks in modern conditions of war is acute.

2. The essence and concept of military criminalistics, its object and system

In the history of criminalistics, there have been attempts to form the idea of military criminalistics. At the same time, various terms were proposed: "military-applied criminalistics" (H.M. Grigoryan and others)²⁹, "military field criminalistics"³⁰, and in some cases two terms "military criminalistics" and "military field criminalistics" are used simultaneously³¹.

In our opinion, the proposed terms somewhat narrow the understanding of the subject, system and tasks of military criminalistics. So, for example, regarding the understanding of military field criminalistics, it is necessary to take into account the fact that the term "field criminalistics" itself is debatable and conditional, since under it we understand and mean those

²⁸ Shevchuk V., Kapustina M., Zatenatskyi D., Kostenko M., & Kolesnikova I. Criminalistic support of combating iatrogenic criminal offenses: Information system prospects. *Social & Legal Studies*, 2023, 6(4). Pp. 208–216.

²⁹ Grigoryan H. Overcoming the Psychological Problems of Military Investigators through Algorithmization of War Crimes Investigations. *Turismo-Estudios E Praticas. Univ Estado Rio Grande Norte*, 2021, 1, Pp. 1–9.

³⁰ Воєнно-польова криміналістика. <https://nlu.edu.ua/science/pidsumky-vseukrayinskogo-konkursu-studentskyh-kursantskyh-naukovyh-robot-z-kryminalistyky-na-temu-voeyno-polova-kryminalistyka/>

³¹ Оржинська Е. І., Мартинова Д. О. Воєнна криміналістика: від теорії до тенденцій. *Південноукраїнський правничий часопис*, 2024. Вип. 1. С. 178.

technical criminalistic tools and methods of working with evidence that are used or can be used not in the investigator's office or in the expert's laboratory, but directly in "field" conditions – at the scene of the incident for its inspection or when conducting other investigative actions or research expert operations at this place. However, as we can see, these questions are far from exhausting the problems of military criminalistics. The analysis and solution of a number of other problems that require research in this specific field of knowledge are of considerable interest both in scientific and practical terms. Moreover, the concepts of «military» and «war-related» should not be confused, since they have different meanings. Thus, according to the dictionary, «military» (war-related) refers to war, and «military» refers to the army.

It is seen that a certain feature of military criminalistics is an operational situation in which a pre-trial investigation is carried out, which is connected with the conduct of hostilities, and the forensic characteristic of such a situation is a continuation of a combat situation, namely, it is the redeployment of the enemy (occupation of new territories by him or, on the contrary, advancement of the Armed Forces of Ukraine); changes in the place of the event and the situation (due to possible shelling with various types of weapons, bombing, etc.); wounding, killing of law enforcement officers and, in general, not even the possibility of conducting investigative actions on the demarcation line and adjacent territories. The direct impact of such military (extraordinary) conditions, the special nature of war crimes and the increased number of urgent investigative actions (especially in cases of constant bombardment of civilian infrastructure and injury or death of the civilian population) collectively form the specifics of pre-trial investigation, collection of evidentiary information in combat zones and adjacent territories. For example, in normal (peaceful, civilian) conditions, the pre-trial investigation method is characterized by a preliminary check of the received information about a criminal offense. In the conditions of hostilities, such a preliminary check is impractical, since the activity of the investigator is reduced to the quick fixation of a criminal offense, the collection of primary information and the appointment of forensic and other examinations. Such investigative actions as recreating the situation and circumstances of the event are not even discussed³².

³² Оржинська Е. І., Мартинова Д. О. Воєнна криміналістика: від теорії до тенденцій. *Південноукраїнський правничий часопис*. 2024. Вип. 1. С. 178.

In this regard, the opinion of O. Dufeniuk is valid that in the conditions of security challenges determined by the aggressive war against Ukraine, the conceptual development of military criminalistics is important, the subject area of which should include the study of theoretical provisions and practical recommendations for collecting, researching, evaluating and using evidence of military crimes, studying the specifics of conducting investigative actions and implementing separate forensic methods of investigating criminal offenses in the conditions of complex geopolitical, legal, security, tactical, logistical, information and communication challenges determined by an aggressive war³³.

In our opinion, the content of the scientific concept of military criminalistics should include ideas and theoretical propositions about the object of research, the knowledge system, the content of its individual elements, the place in the system of scientific knowledge, the significance for the theory and practice of investigative work, the tasks of further scientific research.

The object of military criminalistics is quite specific, since it is, on the one hand, the criminal activity of special militarized units of the aggressor state on the territory of Ukraine in the occupied territories (if any), and on the other hand, the activity of law enforcement agencies, including with the involvement of the military, regarding the recording of military and military criminal offenses, implementation of pre-trial investigation and prevention of such offenses³⁴. In general, military criminology specializes in the investigation of criminal offenses related to military and military spheres, military conflicts and violations of military and military legislation that is specific and does not apply in peacetime³⁵. Military criminalistics includes the examination of traces of combat, the ballistics of weapons, ammunition records, and other specific types of evidence that are not typically found in the investigation of other criminal offenses³⁶.

³³ Дуфенюк О. М. Баланс у кримінальному провадженні: інституційний, правозастосовний, особистісний рівні : монографія. Львів : Растр-7, 2023. С. 27.

³⁴ Shevchuk V. M. Modern criminalistics in the conditions of war and global challenges XXI century: problems today and development prospects. *Problemy Współczesnej kryminalistyki = Current problems of forensic science*. Tom XXVI. pod redakcją: Tadeusza Tomaszewskiego, Ewy Gruzy, Mieczysława Goca. Warszawa, 2022. Pp. 359–374.

³⁵ Shevchuk V. M. Problems of the formation of military criminalistics and its role in modern conditions. *Military offences and war crimes: background, theory and practice* : collective monograph. Ed. by V. M. Stratonov. Riga, Latvia : «Baltija Publishing», 2023. Pp. 801–805.

³⁶ Orzhunska E. Military forensics: research perspectives. *Scientific innovations in law amidst the impact of the Russian-Ukrainian war on the legal system* : International

The object of study of military criminalistics is the regularities of collection, research and use of evidentiary information in the investigation of crimes occurring in areas of armed conflict, active hostilities and military aggression.

Given the mega-challenges in the field of security, in particular the Russian-Ukrainian war, it is important that science and practice respond effectively to security challenges. This can be served by the joint development after February 2022 of a new branch of forensic techniques, tactics and methods – *military criminalistics* as a section that studies theoretical provisions and practical recommendations for collecting, researching, evaluating and using evidence of war crimes, studying the specifics of conducting investigative actions and implementation of separate forensic methods of investigation of criminal offenses in the conditions of complex geopolitical, legal, security, tactical, logistical, information and communication challenges determined by an aggressive war. In such conditions, there is an urgent need for the science and practice of criminal proceedings to standardize the investigation of war crimes and develop specialized subspecies methods of documenting certain types of war crimes. After the de-occupation of the territories, a huge "front" of numerous places of the event opened before the bodies of the pre-trial investigation. Let's be honest, for the training of many investigators and prosecutors, at best, a few academic hours are allocated to study the legal qualification of acts against peace, human security and international legal order, issues of criminalistic support for their investigation. There were actually no special methods of investigating war crimes. Therefore, a significant part of specialists had to learn to act in new "field conditions", to adapt to new tasks. In the near temporal perspective, a significant revival of interest and a natural trend of in-depth development of the outlined issues should be expected³⁷.

The object of military criminalistics to a certain extent also determines its system, which includes scientifically based and tested in practice criminalistic provisions and recommendations on the organization of detection, documentation and investigation of crimes committed in areas of active hostilities, armed conflict in conditions of war, which determine the development and application of methodological foundations, selection

scientific conference (February 7–8, 2024, Riga, the Republic of Latvia). Riga, Latvia : Baltija Publishing, 2024. Pp. 180–182.

³⁷ Дуфенюк О. М. (2022). Вплив глобальних мегатрендів на науку та практику кримінального провадження. *Прикарпатський юридичний вісник*, 6 (47), 171.

and application of means, methods and techniques of criminalistic techniques, tactics and methods of crime investigation taking into account specific conditions of activity – in conditions of martial law and active hostilities in a certain territory of the state³⁸.

Thus, one of the main tasks of military criminalistic is the development, formation and application of a system of means, methods, techniques and measures of forensic protection against the commission of such criminal offenses, which has a complex nature and should cover theoretical-methodological, technical-criminalistic, tactical-organizational and methodological and criminalistic areas of search. In the direction of criminalistic support of military criminalistics, scientific developments and research are being updated on the creation and implementation of innovative criminalistic products aimed at optimizing the fight against crime in the military sphere, documenting and investigating the documentation and investigation of crimes related to the military aggression of the Russian Federation against Ukraine.

3. Modern possibilities and prospects for the development of military criminalistics in the conditions of global military threats

Taking into account the modern tasks of adapting forensic 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 requirements of practice and realities of war are quite urgent³⁹.

We consider the following promising areas of innovative scientific research in criminology: documentation and investigation of war crimes committed by the Russian military in Ukraine; search for missing Ukrainians and identification of those killed in the war in Ukraine; the use of digital forensics to detect, record and investigate war crimes committed by the Russian military in Ukraine; intensification of the application of special knowledge and the conduct of forensic expert studies to determine the amount of damages suffered by individuals and legal entities as a result of Russian armed aggression; development and application of innovative

³⁸ Shevchuk V. Military criminalistics: problems of formation and role in the age of digitalization. *Модернізація вітчизняної правової системи в умовах світової інтеграції*: матеріали Міжнар. наук.-практ. конф., м. Кропивницький, 22–23 березня 2023 р. Кропивницький: ЛА НАУ, 2023. 169–172.

³⁹ Orlovskiy R., Us O., Shevchuk V. Human Trafficking Committed by Transnational Organised Groups: Criminal Law and Criminalistic Means Combating. *Pakistan Journal of Criminology*. 2023. Vol. 15, No. 4. Pp. 119–136.

criminalistic products to improve the effectiveness of the investigation of war crimes and military criminal offenses; forensic support for the activities of the International Criminal Court and other international courts and tribunals; construction and application of an appropriate system of separate criminalistic methods of war crimes and other criminal offenses related to the military aggression of the Russian Federation against Ukraine, etc.

The mentioned problems should be taken into account during the formation of programs, educational disciplines and improvement of the methodology of teaching criminalistics, formation of criminalistic didactics in modern conditions⁴⁰. In such conditions, it is actually possible to state the formation of a new scientific criminology direction – military criminalistic as a strategy for the development of modern criminalistics⁴¹. Let's consider some promising areas of military criminalistics that require special attention. Search and identification of persons killed during the Russian armed aggression against Ukraine. When investigating war crimes, it is often necessary to identify corpses, which can be carried out visually based on appearance, accompanying things and documents or with the help of forensic odontology and genomic DNA research. The work of the forensic pathologist becomes much more complicated when the corpse has been in the open, humid air for a long time, and has been buried in moist soil; corpse buried in "mass graves", because it contributes to the processes of decay, autolysis, saponification (saponification) of the corpse; the corpse is fragmented as a result of severe explosive, gunshot and other injuries; the corpse was moved several times by outsiders, the place of burial was disturbed, while the pattern of traces also partially changed⁴².

In this regard, forensic *DNA analysis* (forensic genetics) is an innovative and promising direction. In the conditions of the war in Ukraine and the spread of terrorist threats, DNA analysis is carried out for the purpose of identifying military personnel and civilians in the areas of hostilities, in the de-occupied territories, identifying persons based on the

⁴⁰ Тищенко В. В. Теоретичні і практичні проблеми формування основ воєнної криміналістики. *Вісник Національної академії правових наук України*. 2023. Том 30. № 3. С. 357–370. С. 368.

⁴¹ Shevchuk V. Criminalistic means, methods and technologies of combating crimes in the field of national security in the context of european integration. *Legal support of European integration: general legal and sectoral aspect* : Scientific monograph. Riga, Latvia : «Baltija Publishing», 2024. 712 p. Pp. 582–604.

⁴² Дуфенюк О.М. Розслідування воєнних злочинів: логістичні, криміналістичні та судово-медичні питання. *Юридичний науковий електронний журнал*. Вип. No 4/2022. С. 372.

facts of mass burials, establishing the identity of unidentified corpses, including those burned, tortured, dismembered etc. Today, molecular genetic analysis of human DNA, according to the American Academy of Sciences, is a tool with the highest degree of reliability and relevance than any other forensic technology. The probability that two people will have the same DNA profile by chance is less than one in 30 billion.

Forensic DNA analysis solves the following main tasks: 1) identification of a living person based on his biological material; 2) identification of unidentified corpses and their parts; 3) establishment of biological paternity (maternity); 4) establishment of biological kinship of people. It is important for the solution of such tasks to take into account the peculiarities of the appointment and conduct of forensic molecular genetic examination, as well as the use of its results in the process of proof in the investigation of criminal offenses.

The main organizational principles of DNA identification of those who died as a result of extraordinary events (catastrophes) with mass human casualties are considered to be: legality – strict compliance with the requirements of the current legislation regarding the receipt of biological samples, their handling, the limits of admissible molecular genetic research, protection of genetic information from disclosure, storage of biological material and genetic information; strategic planning – determination of a single strategy for the DNA identification process and procedures; centralization and coordination – determination of a single control center for the DNA identification process, leaders (coordinators) of working groups in separate areas, ensuring constant communication between them and coordination of efforts; material and technical support – a sufficient level of funding, the involvement of an adequate number of forensic genetics laboratories and the use of compatible equipment; human resources – involvement of a sufficient number of qualified personnel (specialists in the field of forensic biology and other persons trained in the use of appropriate means and methods); quality assurance – strict adherence to methodological requirements and standards at all stages of DNA identification⁴³.

First of all, the problems associated with a significant reduction in the time required for drawing up an expert's opinion become critical in the conditions of war. To a large extent, they can be solved by harmonizing

⁴³ Степанюк, Р. Л., & Гусева, В. О. Організаційні засади ДНК-ідентифікації загиблих унаслідок надзвичайних подій із масовими жертвами. *Криміналістичний вісник*, 2023, 39(1), 29–38.

the work of the initiators of forensic examinations, forensic medical experts and forensic experts – molecular biologists, in particular at the stages of formulating questions in resolutions on conducting forensic molecular genetic examinations and during the selection of samples of biological material – samples from unrecognizable bodies (remains), relatives of the dead, missing⁴⁴.

Problems of identification of remains exposed to high temperatures. Currently, the problems arising during the DNA identification of unidentified persons based on the material of category "g" – from the remains that have been subjected to the destructive influence of high temperatures, causing the highest percentage of identification examinations with a negative result, are becoming particularly acute. Proceedings that initiate such examinations are most often related to requests for the identification of, first, civilians who burned in vehicles or died in buildings during fires caused by small arms fire, artillery strikes or rocket attacks by Russian forces, and secondly, military servicemen of the Armed Forces of Ukraine who died in armored combat vehicles as a result of fire damage by the aggressor.

It is traditionally believed that at a temperature of 210 °C DNA is completely destroyed in 2 hours, and at a temperature of 400 °C – in less than 2 minutes. One of the possible clues to a local area with presumably preserved DNA is the presence of zones on the surface of the bone where the surface fungal mycelium develops, mainly in the form of a light white mold. In this way, in particular, it was possible to detect DNA-containing material and obtain DNA profiles from sets of III and even IV categories of burnt bones of the remains of people who burned in a house in the Makariv district of the Kyiv region, burned in a car while trying to leave occupied Buchi, died during a fire after a rocket attack on a shopping center in Kremenchuk⁴⁵.

In case of mass death of people, which is accompanied by the destruction of corpses with the loss of many identifying features, the identification of a person by bone remains and teeth, which are the most resistant

⁴⁴ Костіков І. Ю., Марійко В. В., Щербакова Ю. В., Мартиненко С. В., Сірвіля А. І., Сандалович Б. О., & Аббасов Р. Г. Молекулярно-генетична ідентифікація осіб, загиблих під час російської збройної агресії проти України: успіхи та проблеми. *Криміналістичний вісник*, 2023, 39(1). С. 24.

⁴⁵ Костіков І. Ю., Марійко В. В., Щербакова Ю. В., Мартиненко С. В., Сірвіля А. І., Сандалович Б. О., & Аббасов Р. Г. Молекулярно-генетична ідентифікація осіб, загиблих під час російської збройної агресії проти України: успіхи та проблеми. *Криміналістичний вісник*, 2023, 39(1). С. 21–23.

to destructive environmental factors, becomes especially important. Bones have a large number of individual characteristics and, which is especially important for practice, are preserved for long periods of time, which are calculated for years, while soft tissues are quickly destroyed under the influence of decay processes. On the bones, even many years after death, one can recognize individual signs that serve as a basis for identification: congenital malformations, the consequences of injuries suffered during life, their antiquity, traces of diseases and professional activity. Even the remains after cremation may include fragments of the head of the humerus, femur, pelvis, skull, and teeth, which are sufficient for diagnosing intravital fractures, malformations, diseases, and other group signs. Therefore, the majority of methodological developments on human identification are devoted to the study of bone remains⁴⁶.

In modern realities, during the war, thanks to the help of international partners, expert units of state forensic expert institutions (primarily the Expert Service of the Ministry of Internal Affairs of Ukraine, research institutes and scientific centers of the Ministry of Justice of Ukraine) were provided with mobile equipment that enables molecular genetic research (express analysis) in field conditions. First of all, they include the French mobile laboratory Mobil'DNA and the American mobile express DNA analysis systems ANDE from among the advanced Rapid DNA systems). This equipment is successfully used to identify war victims in Ukraine. The first such mobile DNA laboratory, designed to detect and identify victims of war in de-occupied territories, was handed over in August 2022. It has been successfully used by experts in the Kharkiv region for more than 8 months. In May 2023 Ukraine handed over the second such mobile DNA laboratory, which will work in Dnipropetrovsk and neighboring regions, which still suffer from massive artillery and air strikes⁴⁷.

The role of digital information in the investigation of war crimes. The use of modern digital technologies in the realities of war makes it possible to significantly increase the efficiency and speed up the investigation of war crimes, crimes against humanity and genocide. It is known that almost any activity of people in the modern world is accompanied by a kind of "trace picture", a special place in which digital traces occupy as an important source of forensic information. Today, it is digital traces that are

⁴⁶ Mishalov V. D., Voichenko V. V., Kozlov S. V. A complex approach to identifying the bodies of dead persons in the conditions of armed conflict. *Morphologia*. 2022, 16(3). Pp. 76–82.

⁴⁷ Україна отримала від Франції другу мобільну ДНК-лабораторію – DW – 10.05.2023. <https://www.gp.gov.ua/ua/posts/ofis-genprokurora->

the basis of the evidence base during the investigation of such criminal offenses. In digital footprints (despite the ever-changing form of information storage), one thing remains constant – it is a digital encoding of information that has given way to an analog signal. With this in mind, it is worth talking about digital traces left in virtual space. Under such circumstances, it is possible to assert the activation of trends in the formation and application of a new scientific direction – *Digital Criminalistics*, which should become a strategic direction in the development of forensic science.

The use of artificial intelligence in the investigation of war crimes in Ukraine can be useful in many aspects⁴⁸. The main directions in which it can be used are as follows: 1) analysis of satellite images. Artificial intelligence can help analyze large volumes of satellite images to identify changes in the landscape, including buildings, roads, infrastructure that may be linked to war crimes, and help identify places where the bodies of war crimes victims may be buried; 2) analysis of video and photo materials. Artificial intelligence can be used to analyze the large amount of video and photo material that has been taken at war crime scenes, which in turn can help in the identification of suspects and witnesses, as well as establish whether they have depicted objects, which may contain forensically significant information for the investigation of such crimes; 3) processing of audio materials. From the recordings of telephone conversations and during the processing of audio materials related to the investigation of war crimes, artificial intelligence can help in the identification of voices contained on such media, as well as determine the places where these conversations were carried out; 4) analysis of social networks. By analyzing social networks, artificial intelligence can help identify links between suspects who may be linked to war crimes and identify individuals who may have witnessed or had information about war crimes⁴⁹; 5) analysis of data from medical institutions. Artificial intelligence can help identify the bodies of victims of war crimes, determine the cause of death, identify prisoners of war, war

⁴⁸ Шевчук В. М. Роль криміналістики та технологій штучного інтелекту у протидії злочинності й забезпеченні національної безпеки та оборони України. *Актуальні питання підготовки фахівців для сектору безпеки і оборони в умовах війни* : міжн. наук.-практ. конф. (м. Кропивницький, 19 квітня 2024 р.). Кропивницький : ДонДУВС, 2024. С. 652–660.

⁴⁹ Матулене С., Шевчук В., Балтрунене Ю. Штучний інтелект в діяльності органів правопорядку та юстиції: український та європейський досвід. *Теорія та практика судової експертизи і криміналістики*. Вип. 4(29). 2022. С. 12–46.

criminals and search for them based on disease data and information about their identifying features that help identify a specific person; 6) face recognition. Artificial intelligence can be used to recognize faces in photos and videos from war crime scenes. This can assist in the identification of suspects involved in the commission of such crimes and the identification of witnesses who may provide important information about the war crime under investigation; 7) analysis of textual information. AI analysis of textual information (messages on social networks and other sources) related to war crimes will contribute to the identification of suspects and witnesses and the discovery of forensically significant information about the war crimes under investigation⁵⁰.

Use of specialized knowledge during the investigation of war crimes.

In criminal procedural activities, special knowledge is used in three forms: when specialists are involved during individual investigative or judicial actions (Part 8 of Art. 228, Part 3 of Art. 237, Part 1 of Art. 238, Part 3 of Art. 359, etc.), in the form of consultations and explanations of specialists (Art. 71, 72, 360 of the Code of Criminal Procedure) and within the scope of the examination (Art. 242, 332 of the Code of Criminal Procedure). During the administration of justice, forensic examination provides significant assistance to pre-trial investigation bodies and the court⁵¹.

By involving an expert, the investigator not only receives his conclusion as a source of evidence, but also finds out the causal relationships between individual physical evidence and traces, actions of certain persons and facts of violation of international humanitarian law. Therefore, the use of special knowledge during the pre-trial investigation increases the effectiveness of the evidence process due to the collection of evidentiary information that cannot be obtained by the investigator without the involvement of an expert or specialist.

During the investigation of war crimes, various types of forensic examination are appointed. In particular, documents, intercepted telephone conversations of the Russian military and other information, including

⁵⁰ Шевчук В. М. Використання інформації із соціальних інтернет-мереж при розслідуванні кіберзлочинів: криміналістичні проблеми. *Кримінальні загрози в секторі безпеки: практики ефективного реагування*: матеріали панельної дискусії III Харків. міжнар. юридичного форуму (м. Харків, 26 вересня 2019 р.) ; Нац. юрид. університет ім. Ярослава Мудрого. Х. : Право, 2019. С.142–146.

⁵¹ Криміналістика: підручник : у 2 т. Т. 1 / В. Ю. Шепітько, В. О. Коновалова, В. А. Журавель, В. М. Шевчук та ін. ; за ред. В. Ю. Шепітька. Харків : Право, 2019. С. 422.

digital information, often require research within the scope of technical examination of documents, handwriting and author examination, examination of video and sound recordings. The facts and methods of transmission by certain collaborators of information about the location of strategic and military facilities in Ukraine to representatives of the aggressor country are established with the help of examination of telecommunication systems. An examination of computer equipment and software products is prescribed for the detection, decoding of information contained on mobile phones, on flash media.

Various objects (weapons and ammunition, military and civilian equipment, explosive objects, melee weapons, various materials and substances, corpses and their fragments, etc.) and various traces (prints of hands, feet, tools, vehicles, gunshot marks) remain at the scene of the incident and explosion, traces of biological origin, etc.). For assistance in identifying, extracting, reviewing, assessing the evidentiary significance and qualitative recording of evidence in accordance with part 2 of Art. 71 of the CCP of Ukraine, specialists of certain expert specialties are involved. In particular, during the examination of the corpse, the forensic doctor helps the investigator to determine the nature of injuries them in the protocol using special medical terminology.

Electronic devices seized from collaborators or Russian prisoners of war serve as a repository of general and personal information, information on various events and phenomena, actions of individuals, etc. Thanks to the fact that modern mobile phones have a wide range of functions (making and receiving calls, phone book, photo and video camera, voice recorder, access to the Internet, creating and editing text files and messages, e-mail, social networks, messengers and communication services and etc.), they store digital traces of the use of these functions and serve as a kind of archives of personal information⁵². Such information can be included in the evidence base only if it is identified, extracted, researched and procedurally confirmed. For the high-quality performance of these tasks, specialists in the IT field are involved, who with the help of modern portable hardware and software complexes "Cellebrite UFED Touch 2 Ultimate" and "Cellebrite UFED 4 PC Physical Analyzer" detect, decode and analyze digital data received from mobile phones.

⁵² Shevchuk V. The role of digital criminalistics tools in the documentation of war crimes in Ukraine. *Актуальні проблеми національного законодавства* : зб. тез Всеукр. наук.-практ. конф. (м. Кропивницький, 20 квітня, 2023 р.). Кропивницький : Юрайт, 2023. С. 46–50.

In particular, such complexes allow: extracting data without entering a graphic key, password or PIN code from Android, Apple, etc. devices; restore previously deleted information; decrypt encrypted WhatsApp history database; extract application data, passwords, instant messages (including from Viber, WhatsApp and Telegram messengers), contacts, SMS messages, emails, audio and video files, call logs, information about the location of the phone and the movement route of its owner by analyzing the history of use access points to Wi-Fi networks, etc. For the study of this information and its transformation into procedural sources of evidence, a forensic expert is engaged in accordance with P. 1 of Art. 243 of the CCP of Ukraine. Explosive device expertise is assigned for the purpose of determining the type of explosion and its power, establishing the design of the explosive device and the method of its manufacture, establishing the ability of the device to cause an explosion and the possibility of the device exploding under specific conditions (shocks, heating, etc.).

Debris of ballistic objects (projectiles or missiles) removed from the scene of the incident are examined within the framework of forensic ballistic examination, the main tasks of which are to determine the type, system and caliber of firearms, reactive and non-reactive grenade launchers, mortars, artillery guns, anti-tank missile complexes, rocket salvo systems, anti-aircraft missile complexes and ammunition for them.

Within the framework of the forensic medical examination of corpses, issues related to the identification of persons by their remains, determination of the causes of death, duration of the postmortem period, nature, mechanism of formation and localization of bodily injuries are resolved (their size, shape, number, direction, and other signs are determined). The work of the forensic pathologist is significantly complicated in the following cases: the corpse has been in the open, humid air for a long time or was buried in moist soil; the corpse is fragmented as a result of severe explosive, gunshot and other injuries; the corpse was moved several times by outsiders, the place of burial was changed, etc.⁵³

Thus, important directions for improving the investigation of war crimes in Ukraine are the use of special knowledge that requires further scientific research taking into account international experience and modern

⁵³ Дуфенюк О. М. Розслідування воєнних злочинів: логістичні, криміналістичні та судово-медичні питання. *Юридичний науковий електронний журнал*. 2022. № 4. С. 372.

practice⁵⁴. Today, criminology has chosen a European vector of development. European approaches are revealed and ensured in the application of evidentiary standards during criminal proceedings, including in the investigation of war crimes with the use of artificial intelligence technologies and special knowledge⁵⁵.

Determining the amount and compensation for damage and losses caused to individuals and legal entities as a result of the armed aggression of the Russian Federation. The military aggression of the Russian Federation against Ukraine caused significant damage to the Ukrainian people, in addition to military facilities and critical infrastructure facilities, the housing stock was significantly affected. All of this must be compensated in full, including not only actual losses, but also lost profits.

In order to determine the damage and the amount of damage caused to enterprises, institutions and organizations of all forms of ownership as a result of the destruction and damage of their property in connection with the armed aggression of the Russian Federation, as well as the lost profit from the impossibility or obstacles in the conduct of economic activity, the construction and technical, construction, evaluation and land, road engineering, commodity and economic expertise, to obtain conclusions both on the extent of damage and destruction of property, and on the cost of restoring property, as well as to calculate the size of the lost profit of the enterprise⁵⁶.

It is believed that conducting these examinations in a complex with other types of expert studies increases their evidentiary value, which is due to the need to establish, in addition to the amount of material damages, a cause-and-effect relationship between the damage (destruction)

⁵⁴ Шевчук В. М., Авдеева Г. К. Використання технологій штучного інтелекту та спеціальних знань у розслідуванні воєнних злочинів. *Правнична наука та законодавство України: європейський вектор розвитку в умовах воєнного стану* : монографія ; Нац. акад. прав. наук України. Харків : Право, 2023. 902 с. С. 491–503.

⁵⁵ Shevchuk V. Technical and Criminalistic Means and Methods of Preventive Activity. *Textbook of Criminalistics. Volume II: Criminalistic Technique and Tactics* / editorial board : Prof. Dr. Hendryk Malevski, Prof. Dr. Valery Shepitko, Assoc. Prof. Dr. Gabriele Juodkaite-Granskiene, Prof. Dr. Vidmantas Egidijus Kurapka, Prof. Dr. Snieguole Matuliene, Prof. Dr. Mykhaylo Shepitko. Vilnius, Kharkiv : Pravo, 2023. Pp. 26–35.

⁵⁶ Вознюк А. А., Грига М. А. Експертне забезпечення визначення розміру шкоди та збитків від пошкодження і руйнування будівель, споруд та інших об'єктів інфраструктури внаслідок збройної агресії РФ. *Науковий вісник Ужгородського Національного Університету. Серія : Право.* 2022. Вип. 73. Ч. 2. С. 123–130.

of the investigated objects and the military actions of the aggressor country. Thus, it is advisable to conduct a construction and technical examination in a complex with an explosive examination to determine the type of ammunition that damaged (destroyed) the building. Expert assistance in determining the amount of damage and losses from damage and destruction of residential and non-residential buildings and infrastructure as a result of the armed aggression of the Russian Federation is extremely important for the implementation of mechanisms aimed at reparation (compensation) for losses incurred, including at the expense of the aggressor country. The need to establish, in addition to the amount of damage suffered, a cause-and-effect relationship between the losses and the aggressive military actions of the Russian Federation determines the priority of conducting complex expert studies in such cases with the involvement of specialists from various fields.

It should be noted that any assessment of property or damage can be provided in the presence of relevant initial data and information sources, which are necessary for the assessment of property. The inspection report is a key document that will be used during the damage assessment, as it will contain a conclusion on the degree of damage and the possibility of further restoration, further operation of the real estate object or such an object is recognized as subject to dismantling.

To determine the technical condition of damaged buildings, structures and engineering networks, the causes of damage and destruction of objects and their elements, a construction and technical expertise is appointed, and to determine the amount of material damage to the object (building, apartment, room, structure, etc.) – estimated – construction expertise. With the help of commodity examination, it is possible to determine the amount of material damage caused to the owner of the property as a result of its damage (during shelling, bombings, fires, etc.) or theft. Carrying out a transport and commodity examination allows to establish the value of material damage caused to the owner of the vehicle as a result of criminal actions of the Russian military (firing with firearms, kidnapping, etc.)⁵⁷.

Thus, in the modern realities of martial law, a reboot of criminology is taking place, primarily associated with the emergence of new challenges to the criminal justice system and the need to solve priority tasks in the

⁵⁷ Шевчук В. М., Авдєєва Г. К. Використання технологій штучного інтелекту та спеціальних знань у розслідуванні воєнних злочинів. *Правнича наука та законодавство України: європейський вектор розвитку в умовах воєнного стану* : монографія ; Нац, акад. прав. наук України. Харків : Право, 2023. 902 с. С. 491–503.

conditions of active hostilities on the territory of Ukraine, to form forensic knowledge in accordance with the needs of practice⁵⁸. In such conditions, military forensics is called upon to develop the latest means, techniques and methods aimed at countering criminal offenses related to the military aggression of the Russian Federation against Ukraine.

CONCLUSION

Today, the scientific prerequisites for the formation of the theoretical foundations of military criminalistics as a new scientific direction in criminalistic doctrine, which has significant prospects for further scientific research in criminalistics, have been created. The task of determining the content and structure of military criminalistics and its place in the system of criminalistic knowledge is becoming relevant today. Military forensics can be considered as a separate section in forensics – "Special criminalistics" (V.V. Tishchenko), as a separate forensic theory (E.I. Orzhynska), and in some cases defined as a new branch of criminalistic techniques, tactics and methodics – military criminalistics (O.M. Dufenyuk). In this regard, the point of view of V.V. is interesting. Tishchenko regarding the fact that it is currently considered expedient to create a separate section in the criminalistic system under the name of which it would be possible to include military criminalistics, as well as new specific branches and directions of criminalistic science, such as digital criminalistics, nuclear criminalistics, architectural criminalistics, etc. It is seen that the issue of determining the place of military criminalistics in the system of criminalistics needs its own solution.

Under such conditions, there is an urgent need for further scientific studies of the scientific concept of military forensics and active implementation of its provisions in the practice of law enforcement agencies and the security and defense sector of Ukraine. Military forensics must play a key role in ensuring the legality and order of criminal justice in wartime conditions. This will make it possible to systematize theoretical provisions and, based on the analysis and generalization of investigative practice, to develop practical recommendations regarding the optimal organization of the investigation of war crimes, proving their circumstances, establishing the guilty persons and their fair punishment. Therefore, all this together determines the relevance, the need for scientific

⁵⁸ Shevchuk V. Current Issues of Criminalistics in Context of War and Global Threats. *Theory and Practice of Forensic Science and Criminalistics*, 2022, 28 (3). Pp. 11–27.

development of forensic support methods for the investigation of war crimes and criminal offenses in the military and military sphere. Solving such tasks requires a comprehensive approach and the use of all modern technical and organizational means, as well as analytical and cognitive methods in the investigation of criminal offenses against peace, human security, and the international legal order.

SUMMARYS

The article examines the theoretical and methodological foundations of military criminalistics in the modern conditions of military threats have been studied. The genesis and historical origins of the emergence, development and formation of military criminalistics are considered. The object, subject, system and tasks of military criminalistics as a strategic direction of the development of criminalistics are defined. The historical origins, the main stages of the formation and development of military criminalistics in today's realities are analyzed, and the promising directions of its scientific research are outlined. It is justified that the content of the scientific concept of military criminalistics should include ideas and theoretical propositions about the object of research, the knowledge system, the content of its individual elements, the place in the system of scientific knowledge, the importance for the theory and practice of investigative work, the tasks of further scientific research.

In the conditions of the war in Ukraine and large-scale aggression by the Russian Federation, the relevance of the formation of a new scientific criminalistic direction, a new field of criminalistic science – military criminalistics has been proven. It is justified that the further development and formation of military criminalistics today is a strategic direction of modern criminalistics. 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 protection against the commission of such crimes. Such support should have a comprehensive nature and cover theoretical-methodological, technical-forensic, tactical-organizational and methodical-forensic areas of search. It is noted that it is important to take into account the modern trends in the development of criminalistic related to the formation of its separate branches (directions): medical, genotoxic, military, digital, aerospace and nuclear criminalistics. Among them, the study of military criminalistics is of particular importance. It is indicated that today the scientific prerequisites for the formation of the theoretical foundations of military criminalistics as a new scientific direction in the criminalistic

doctrine have been created. The most relevant and promising problems of the research of the mentioned problems are highlighted.

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