

## THE CONCEPT OF PRIORITIZATION IN CRIMINALISTICS AND FORENSIC EXAMINATION: VISIONS OF HANS GROSS AND CURRENT PROBLEMS OF TODAY

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### INTRODUCTION

The modern criminal justice system is in the conditions of a constant «resource conflict»: the rapid growth of the volume of digital information and the complexity of transnational crime are ahead of the capabilities of law enforcement agencies. In this context, the concept of prioritization – strategic selection of the most socially significant or promising cases for disclosure – becomes not just a technical tool, but a fundamental praxeological necessity<sup>1</sup>. Such an approach allows not only to modernize the strategy and model of countering crime, but also to offer innovative approaches in forensic security of the activities of law enforcement agencies and the criminal justice system, as well as to adapt this system to the extreme modern challenges of wartime and the requirements of a global digital society<sup>2</sup>.

The genesis and historical origins of this approach go back to the classical scientific heritage, in particular the works of Hans Gross, who more than a century ago laid the foundation of criminalistics and the intellectual and applied principles of effective crime investigation<sup>3</sup>. The problem lies in the transformation of his vision of an «encyclopedist investigator» into a modern case management model, where priorities are determined not only by professional intuition, but also by algorithmic methods and big data analysis. The evolution of criminalistics from Hans Gross to the present is a journey from the «art of detection» to a high-tech resource management strategy that is closely related to certain aspects of prioritizing evidence collection and crime investigation.

The realities of martial law and the strategic course towards the Europeanization of Ukraine today have a significant impact on the development and transformation of jurisprudence, criminalistics and forensic examination<sup>4</sup>. In this context, the

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<sup>1</sup> Houck M.M. The rchitecture of forensic knowledge: Ontology, transformation, and capture – PMC. *Forensic Sci Int Synerg.* 2026 Feb 2;12:100662. doi: 10.1016/j.fsisyn.2026.100662 <https://pmc.ncbi.nlm.nih.gov/articles/PMC12886074/>

<sup>2</sup> Шевчук В. М., Тищенко О. І. Технологізація криміналістики, судової експертизи і кримінального провадження в сучасних умовах цифровізації. *Юридичний науковий електронний журнал.* № 12. 2024. С. 375–380. DOI: <https://doi.org/10.32782/2524-0374/2024-12/86> URL: [http://www.lsej.org.ua/12\\_2024/88.pdf](http://www.lsej.org.ua/12_2024/88.pdf)

<sup>3</sup> Шевчук В. М. Традиції та інновації у формуванні наукової парадигми криміналістики: візії Ганса Гросса тасьогодення. *В Наукові читання пам'яті Ганса Гросса* : збірник тез міжнародної науково-практичної конференції (м. Чернівці, 09 грудня 2025 року). Чернівці : Чернівець. нац. ун-т ім. Ю. Федьковича, 2026. С. 33 - 38.

<sup>4</sup> Matulienė, S., Shevchuk, V., & Baltrūnienė, J. (2023). Artificial Intelligence in Law Enforcement and Justice Bodies: Domestic and European Experience. *Theory and Practice of Forensic Science and Criminalistics*, 29(4), 12-46. DOI: <https://doi.org/10.32353/khrife.4.2022.02>

development of innovative vectors for the application of criminalistic and special knowledge, based on modern achievements of science and technology, as well as the activation of processes of technologization and prioritization in the conditions of digitalization of society, acquires special importance<sup>5</sup>. In these processes, the problem of conceptualization of prioritization in criminalistics appears as a fundamental strategic direction of scientific research and a tool for optimization, efficiency improvement, and improvement of investigative, expert, and judicial practice<sup>6</sup>.

Therefore, the study, analysis and research of the problems of the evolution and development of criminalistics and the concept of prioritization from ancient times to the present is relevant and significant. The vision of Hans Gross demonstrates the transition from individual tactical selection to systemic strategic prioritization. At the same time, he taught investigators to clearly understand which evidence is the most valuable from the point of view of establishing the truth in the investigation process, then the modern concept of prioritization determines which lines of investigation are the most effective from the point of view of public safety and saving resources. Gross's scientific legacy remains the foundation: his demand for professionalism and scientific validity of the investigator's actions is today embodied in algorithms that help justice to remain effective in conditions of information overload.

### **1. Historical and praxeological approaches in the formation of criminalistics and their influence on the concept of prioritization in the context of the scientific heritage of Hans Gross**

First of all, it is worth noting that the origin, development and formation of criminalistics are closely related to the name of the outstanding Austrian forensic scientist, forensic investigator, doctor of law, professor Hans Gustav Adolf Gross (1847–1915), who is rightfully considered the «Father» of criminalistics. And indeed it is so, because Hans Gross is one of the pioneers and founders of the new science – criminalistics<sup>7</sup>. He is the founder of the European school of criminalistics – «science for forensic investigators»<sup>8</sup>.

Hans Gross founded the world's first museum and institute of criminalistics in Graz. He is the inventor of the investigative suitcase, the initiator of the introduction of the educational discipline «criminalistics» for lawyers who studied at law faculties of universities. It is important that Hans Gros worked in Ukraine from 1898 to 1902 and taught criminalistics at the Franz Josef Chernivtsi University (now the Yuri Fedkovich Chernivtsi National University) and was the dean of the Faculty of Law.

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<sup>5</sup> Шевчук В. Роль технологій штучного інтелекту у правоохоронній діяльності та забезпеченні безпеки та обороноздатності України. *Юридичний науковий електронний журнал*. 2024. № 6. С. 357. URL: <https://doi.org/10.32782/2524-0374/2024-6/88>

<sup>6</sup> Шевчук В. М. Діджиталізація, цифровізація та технологізація криміналістики: проблеми сьогодення та перспективи майбутнього. *Діджиталізація судово-експертної науки в умовах воєнного стану*: матеріали міжн. науко-практ. конф. (8 листопада 2024 р., м. Харків). Харків: Право, 2024. С. 324-327.

<sup>7</sup> Hans Gross: The Pioneering Father of Modern Forensic Science. <https://simplyforensic.com/hans-gross-father-modern-forensic-science-criminalistics/>

<sup>8</sup> Kasprzak Je., Jusupow W. Hans Gross – postać znana i nieznana. *Studia Prawnoustrojowe*. Olsztyn, Polska. Vol. 51. 2021. S. 39–56.

While working in Chernivtsi, in 1898 he became the founder and editor-in-chief of the magazine «Archives of Criminal Anthropology and Forensic Science», which at that time was the only edited publication of this rank at the University of Chernivtsi<sup>9</sup>. It is believed that this journal becomes the world's first periodical on criminalistics and criminology<sup>10</sup>.

The formation and professional development of Professor Hans Gross as a forensic investigator, scientist, practitioner, and in the long run as a founder, founder, «father of criminalistics» has its roots primarily in military service and his acquisition of significant practical experience as a military investigator. It is known that from 1878 to 1881, H. Gross served as a military investigator for three consecutive years<sup>11</sup>. While in military service, Hans Gross gains practical experience in investigative work and learns Serbian, Croatian, and Russian languages. He also studies and analyzes the problems of crime investigation, the state of judicial practice and its shortcomings and gaps, which lead him to the need to systematize such knowledge and improve the practical skills of investigators, gendarmerie, and courts in this area. Such practical and military experience forms the opinion and then the idea of Hans Gross regarding the creation of a new science of «criminalistics»<sup>12</sup>.

The essence of Hans Gross's idea was that in order to successfully solve the problems that exist in practice among investigators, it is necessary to systematically and professionally use the latest achievements of science and technology in the fight against crime, to more actively apply the data of natural and technical sciences to the tasks of uncovering and investigating crimes<sup>13</sup>. In his writings, H. Gross indicated that «the investigator must possess such a mental system that, in the process of investigating crimes, makes his search and cognitive activity more meaningful, confident, rational and consistent»<sup>14</sup>.

Indeed, it was Hans Gross who devoted his entire life to the ideas of active application of the latest advances in science and technology in the fight against crime, the formation of a special way of thinking in the investigator, the use of data

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<sup>9</sup> Shevchuk V., Konovalova V. The scientific legacy of Hans Gross and its influence on the modern development of criminalistics. *Наукові читання пам'яті Ганса Гросса*: зб. тез міжн. наук.-практ. конф. (м. Чернівці, 09 грудня 2021 р.). Чернівецький національний університет імені Юрія Федьковича. Чернівці : Технодрук, 2021. Рр. 17–22.

<sup>10</sup> Нежурбіда С. І., Скулиш Є. Д. Ганс Гросс: нові факти з життя вченого у Чернівцях. *Наукові читання пам'яті Ганса Гросса*: збірник тез міжнародної науково-практичної конференції (м. Чернівці, 09 грудня 2021 р.). Чернівецький національний університет імені Юрія Федьковича. Чернівці: Технодрук, 2021. С. 39–44.

<sup>11</sup> 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*: збірник тез міжнародної науково-практичної конференції (м. Чернівці, 09 грудня 2021 р.). Чернівецький національний університет імені Юрія Федьковича. Чернівці : Технодрук, 2021. С. 51–54.

<sup>12</sup> Одерій О. В. Актуальність науково-практичних здобутків Ганса Гросса для сучасної криміналістики. *IV Наукові читання пам'яті Ганса Гросса*: зб. тез міжн. наук.-практ. конф. (м. Чернівці, 09 грудня 2024 р.). Чернівецький національний університет імені Юрія Федьковича. Чернівці : Технодрук, 2024. С. 32–36.

<sup>13</sup> Біленчук П. Д., Медвідь Ф. М. Ганс Гросс як фундатор криміналістичної науки. *Актуальні проблеми держави і права*. 2008. №. 44. С. 33–38.

<sup>14</sup> Gross G. *Kriminal psychologia*. Garz, 1898. 734 p. Pp. 154.

from natural and technical sciences for the tasks of solving and investigating crimes and their implementation in the practical sphere. He successfully introduced his ideas into practical and scientific activities in order to optimize the work of investigators and other participants in the effective process of combating crime by the means of the new science – criminalistics.

At the beginning of his career as an investigator, Hans Gross drew attention to the fact that the Austrian criminal police used outdated and ineffective methods in the investigation of crimes: anonymous reports, denunciations by agents, the use of physical influence on suspects, etc. He comes to the conclusion that in order to conduct effective investigative activities, it is necessary to create a new scientific and technical foundation. Therefore, G. Gross systematizes the techniques of crime investigation and describes the possibilities of using the achievements of chemistry, physics, botany, zoology, psychology, physiology, photography, microscopy with the aim of applying them in the fight against crime.

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 them 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 languages<sup>15</sup>. The third edition of this manuscript was called by Hans Gross “Handbuch für Untersuchungsrichter als System der Kriminalistik” (Handbook for Forensic Investigators as a System of Criminalistics)<sup>16</sup>. 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 published<sup>17</sup>.

By the concept of «criminalistics» Hans Gros meant the science of solving crimes, by which he understood the process of pre-trial investigation as a whole. He regarded it as a technical applied discipline and wrote that criminology by its nature begins only where criminal law, also by its nature, stops its work: substantive criminal law has as its subject the study of a criminal act and punishment, formal criminal law (process) includes the rules of application of substantive criminal law. But exactly how crimes are committed, how to investigate these ways and reveal them, what were the motives and purpose of their commission – neither criminal law nor the process tells us about all this. This is the subject of criminalistics<sup>18</sup>.

Hans Gross, giving extremely important importance to the «realities of criminal law», the collection and examination of physical evidence before the hearing of the

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<sup>15</sup> Gross H. Handbuch für Untersuchungsrichter, Polizeibeamte, Gendarmen u. s. w. Graz, 1893. VIII. 620 s.

<sup>16</sup> Hans Gross. Handbuch für Untersuchungsrichter als System der Kriminalistik. 3., Verm. Aufl. Graz : Leuschner & Lubensky, 1899. XIV, 813 S.

<sup>17</sup> Hans Gross. Podręcznik dla sędziego śledczego jako system kryminalistyki: Opracowanie i przekład / Kasprzak Jerzy. Warszawa : Difin, 2021. 561 S.

<sup>18</sup> Шевчук В. М. Традиції та інновації у формуванні наукової парадигми криміналістики: візії Ганса Гросса тасьогодення. *У Наукові читання пам'яті Ганса Гросса* : збірник тез міжнародної науково-практичної конференції (м. Чернівці, 09 грудня 2025 року). Чернівці : Чернівець. нац. ун-т ім. Ю. Федьковича, 2026. С. 33–38.

case in court, emphasizes that the statement of criminalistics is absolutely correct that from now on the center of gravity of the process should be transferred from the trial to the period of pre-trial investigation. And the pretrial investigation is obliged not only to find, but also to use all data of real quality. That is why the activities of the forensic investigator and his professional training are especially important, and as soon as criminology reaches its highest level of development, the forensic investigator and his work will become of primary importance in the entire process<sup>19</sup>.

Hans Grosz's thoughts on the relationship between criminalistics and the science of criminal law are interesting. Quite interesting in this context are H. Gross' remarks that criminal law is related to criminalistics as pathological anatomy is related to surgery. Pathological anatomy studies the ailments of the human body, subjects them to research and systematization. It distinguishes individual diseases from each other, gives them names and recognizes them in each case. She establishes their connection with each other and explains their causes and consequences. Surgery, on the other hand, strives to eliminate these diseases through the practical application of the scientific knowledge developed and systematized for it by pathological anatomy.

Hans Gross in his «Advisors for forensic investigators» of different years of publication described firearms as instruments of crime; persons who possessed special knowledge of firearms. He devoted a separate chapter to information about weapons, laying the foundations for the formation of forensic ballistics and forensic weapons science<sup>20</sup>. 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 to the division of rifles, as the most frequent tools of crime, into: shotguns for shooting pellets; guns for shooting a bullet. Also, these guns were classified by the number of barrels, the quality of materials, and the design of the fuse. Cold weapons (cutting and stabbing) were divided into swords, knives, and spears. These publications describe the method of use of weapons, their range, the combat effectiveness of firearms and other important issues of forensic ballistics.

The scientific ideas and views of Hans Gros regarding the subject and system of criminalistics acquire scientific and practical interest. In particular, two ideas of the outstanding scientist are noted: 1) criminalistics has as its subject the study of two types of activity – criminal activity and the activity of the investigator, which is reflected in the knowledge system of this science; 2) the system of criminalistics should consist of general and special parts based on the example

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<sup>19</sup> Handbuch für Untersuchungsrichter als System der Kriminalistik. Munchen. J. Schweitzer, 1908. / Керівництво для слідчих суддів як система криміналістики. Київ : «Центр учбової літератури», 2021. 1080 с.

<sup>20</sup> 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.

of criminal law, the practical implementation of whose provisions in the judiciary is carried out precisely through criminalistics<sup>21</sup>.

It is seen that criminalistics, «born in the bowels» of criminal procedure science, acquired its independence precisely in the system of legal sciences of the criminal law cycle. The place of criminology in the system of legal sciences of the criminal-legal direction is primarily determined by its essence, subject, objects of knowledge, and is confirmed by the development of scientific views on this issue. The place of criminalistics «in the general system of criminal sciences» and its influence on «substantive and formal criminal law» was defined by Hans Gross. Criminalistics, by its very nature, begins only where criminal law, also by its very nature, stops its work. By demonstrating such an illegal act as arson, Hans Gross proves the above statements. In particular, the concept of arson, its signs and varieties, features of punishment and its purpose are all prerogatives of criminal law. However, at the same time, how the criminal acts during the direct commission of arson, the tools and means he uses for this, how it is possible to determine the methods of committing this crime, how to identify the criminal and prove his guilt – all this is the subject of criminalistics.

It is obvious that the scientific works of Hans Gross and, in particular, the fundamental work «Advisor (guide) for judicial investigators as a system of criminalistics»<sup>22</sup> are today a kind of reference point and practical advisor for investigators, prosecutors, and courts, which determines the possibilities of applying criminalistic knowledge and the priority directions of scientific research in criminalistics. In this work and his other scientific works, Hans Gross defined the directions of formation and development of «criminalistics» (as a new and independent science of crime detection and investigation) and formed its main scientific provisions and outlined further prospects.

Hans Gross is the founder of the European school of criminalistics, and his scientific works determine the vector of development of forensic science. In addition, the scientific legacy of Hans Gross has not lost its relevance even today, it is in demand by scientists, practitioners, forensic experts, law enforcement officers, judges, prosecutors, etc. The scientific provisions set forth in his scientific works have practical significance and today help practical workers to successfully fight crime.

As you can see, before the advent of systematic criminalistics, the investigation was based on chance or torture. Hans Gross made a revolution by introducing a praxeological approach: he proved that investigation is a work process that requires rationalization. Gross's vision is that he proposed a «priority of the material». The investigator had to ignore unreliable rumors (subjective) and focus on micro-traces, ashes, prints (objective). This was the first form of tactical prioritization – the selection of the most informative piece of evidence among a multitude of trifles.

In his writings and scientific and practical developments, Hans Gross laid down the idea that criminalistics is the science of investigating crimes, which is

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<sup>21</sup> Волобуєв А.Ф. Предмет і система криміналістики в поглядах Ганса Гросса. *Науковий вісник Ужгородського національного університету*. 2024. № 85. С. 24–29. DOI: <https://doi.org/10.24144/2307-3322.2024.85.4.3>.

<sup>22</sup> Hans Gross. *Hanbbuch für Untersuchungsrichter als System der Kriminalistik*. 3., Verm. Aufl. Graz: Leuschner & Lubensky, 1899. XIV, 813 S.

based on the priorities of investigative tasks, the ranking of opportunities and means in certain investigative situations, taking into account the experience of the investigator and his ability to use scientific and technical means during the collection of evidence and in the investigation process. He prioritized knowledge of the *Modus Operandi* (method of action), which allowed the investigator not to waste time on impossible versions.

With the development of criminalistics (the middle of the 20th century – the beginning of the 21st century) prioritization moved from the level of «what to look for at the scene» to the level of «which case to investigate first». Today, Gross's vision of an «encyclopedist investigator» has been transformed into Intelligence-Led Policing (ILP). Priority is given not just to serious crimes, but to those of a systemic nature (cybercrime, terrorism), since their disclosure gives the maximum preventive effect. Moreover, the praxeological aspect of today is that modern criminal proceedings use Case Screening models. Criminal proceedings are analyzed according to the «coefficient of disclosure». If the legacy of Gross taught us how to search effectively, then modern prioritization answers the question of where it is appropriate to spend public resources.

## **2. Current areas of research on prioritization in criminalistics in modern conditions of military threats and digital transformations**

Today, prioritization is seen as a response to modern challenges. First of all, this is due to the processes of digital transformation of criminalistic knowledge and modern scientific developments. So, for example, the influence of the ideas of Hans Gross is manifested in the use of artificial intelligence for Big Data analysis. We prioritize digital traces over traditional ones because they provide a higher identification rate. This shows the connection of his scientific heritage with the development of the concept of prioritization. Hans Gross called for using the achievements of all sciences (chemistry, physics, zoology). The modern prioritization of technical means (for example, the priority of DNA analysis over simple expert studies of biotracers) is a direct extension of his scientific approach to investigative prioritization processes.

Today, criminalistics, as an applied science, integrating modern achievements of science and technology, directs its scientific potential to create an effective system of criminalistic tools, methods and technologies, the application of which is aimed at solving complex practical tasks, among which the possibility of applying criminalistic knowledge in modern conditions of global threats is gaining particular importance<sup>23</sup>.

Therefore, criminalistic, and each of its sections, faces tasks related to ensuring the activities of law enforcement agencies and other special subjects of such countermeasures with effective criminological recommendations in the fight against crime in wartime conditions. Thus, the modern paradigm of criminology should be aimed at the preservation and further development of criminalistics as a legal science of an applied nature, which has chosen the European vector of development. In today's

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<sup>23</sup> Shevchuk V., Zhuravel V., Yevdokimenko S., Yevdokimenko S., Myshkov Y. Forensic Examination and Criminalistics in Investigating War Crimes: European and Ukrainian Experiences. *Jurnal Media Hukum*. 2025. Vol. 32, iss. 1. P. 59–77. DOI: <https://doi.org/10.18196/jmh.v32i1.25056>

realities, criminology is called upon to effectively combat modern crime, to solve tasks that are important in war conditions, to perform functions of providing practice with modern knowledge, innovative forensic tools, methods and recommendations that increase the effectiveness of law enforcement agencies in combating criminal manifestations and modern challenges during the martial law in Ukraine<sup>24</sup>.

Today, criminalistics is faced with a paradox: the technical capabilities of evidence collection are growing exponentially, while the human and time resources of the investigator remain limited. This gives rise to an urgent need for the concept of prioritization – scientifically based selection of objects, methods and cases that require priority attention. The roots of this problem go back to the time of the formation of criminology, where the praxeological aspect (effectiveness of action) always dominated over theoretical abstraction.

Today, prioritization processes are a key imperative that meets the challenges of technological and social evolution and development. Possessing a unique specificity, prioritization becomes a methodological basis for increasing the efficiency of any activity, establishing the optimal algorithm for solving tasks depending on their weight and priority. In the field of criminal justice, prioritization should be considered as complex strategic planning, which directly affects the quality of the use of system resources and ensures the achievement of procedural goals in the most rational way. Prioritization is not just a process that includes a list of tasks to be solved according to their importance, it is actually a whole management strategy that further determines the effectiveness of using any system, in particular, the system related to criminal proceedings and the activities of criminal justice bodies.

As practice shows, the effectiveness of pretrial investigation, trial, and criminal justice bodies is largely determined by the system of selected priorities. Giving preference to something based on the result of selecting the best according to certain criteria, or ranking the importance of certain means, is the basis of building an optimal model of the work of any system, including the «pre-trial investigation – trial – criminal justice» system, which creates certain conditions for the existence and implementation of such a system with a high efficiency ratio<sup>25</sup>.

It is believed that the main processes of prioritization in criminalistics and criminal proceedings include the identification of tasks by priorities, their alignment using a set of ranking criteria and their regular revision to adapt to new conditions and circumstances of investigation and trial. The processes of prioritization significantly influenced the forensic investigation of criminal offenses, the prioritization of criminal proceedings in the modern conditions of military threats<sup>26</sup>.

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<sup>24</sup> Шевчук В. М. Традиції та інновації у формуванні наукової парадигми криміналістики: візії Ганса Гросса тасьогодення. *V Наукові читання пам'яті Ганса Гросса* : збірник тез міжнародної науково-практичної конференції (м. Чернівці, 09 грудня 2025 року). Чернівці : Чернівець. нац. ун-т ім. Ю. Федьковича, 2026. С. 33–38.

<sup>25</sup> Глинська Н. В. Пріоритизація у кримінальному провадженні: поняття, ознаки, ключові аспекти та виміри. *Питання боротьби зі злочинністю*. Вип. 49. 2025. С. 86–87.

<sup>26</sup> Пашковський М. І. Пріоритизація кримінальних проваджень за статтею 438 КК України: перспективи цифровізації. *Альманах наукових праць фахівців НДІ вивчення проблем злочинності імені академіка В. В. Сташиса НАПрН України за результатами досліджень у 2022 р.* ; НДІ вивч. проблем злочинності ім. акад. В. В. Сташиса НАПрН України. Харків: Право, 2023. С. 80–91.

It is under such conditions that today the problems of intensifying the development and implementation of innovative approaches in criminology, the latest technologies, forensic tools<sup>27</sup> regarding the problems of prioritization in criminal proceedings, the activities of criminal justice bodies in combating modern crime, including the formation and development of the concept of prioritization in forensic science, forensic expertise, as well as the active use of its tools in investigative (detective), judicial and expert activities in the conditions of war and digitalization.

Many scientists made a significant contribution to the study of the role of technology and digitalization in the judiciary, law enforcement activities, in the investigation of certain types of criminal offenses and their importance for increasing the effectiveness of criminal justice bodies under martial law. At the same time, the issue of a complex study of the role of prioritization in criminology and criminal proceedings in the modern realities of wartime remains unexplored today. It can be seen that the importance of this issue for increasing the effectiveness of pre-trial investigation, trial, as well as conducting research in this area is relevant today.

Recently, the concept and term «prioritization» is quite popular and quoted. It is found in scientific circulation and in practical activities<sup>28</sup>, and in the economy, business, culture, science, public administration, including in the legal sphere, in the activities of criminal justice and judicial bodies<sup>29</sup>. Many sources state that prioritization affects the optimization of tactical and strategic decisions and is an important condition for the effectiveness of any activity, including investigative, detective, prosecutorial, expert and judicial<sup>30</sup>.

In the modern understanding, the processes of prioritization in various spheres of activity refer to the distribution of tasks, resources or areas of activity according to the degree of their importance and urgency to determine the order and sequence of their implementation. In general, prioritization refers to the process of identifying and prioritizing tasks, projects, or other items in order to determine their order of execution in order to optimize and improve work efficiency<sup>31</sup>. Prioritization affects all spheres of society, determines the development priorities of states, including Ukraine, which chose the European vector of development and is now in a state of war, which was started by the aggressor country – the Russian Federation<sup>32</sup>.

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<sup>27</sup> Shevchuk V., Zhuravel V., Yevdokimenko S., Yevdokimenko S., Myshkov Y. Forensic Examination and Criminalistics in Investigating War Crimes: European and Ukrainian Experiences. *Jurnal Media Hukum*, 2025, 32(1), 59–77. DOI: <https://doi.org/10.18196/jmh.v32i1.25056>

<sup>28</sup> Клепка Д. І. Права людини в системі механізму пріоритезації у кримінальному провадженні. *Питання боротьби зі злочинністю*, 1(49), 101–107.

<sup>29</sup> Цивільський О. У фокусі – головне: як (не) працює пріоритезація кримінальних проваджень. Discussion Paper. 8 с. URL: <https://lnk.ua/MHFjGYF71>

<sup>30</sup> Булукуков О. Ю. Оптимізація тактичних рішень – умова ефективності слідчої діяльності. *Питання боротьби зі злочинністю* : зб. наук. пр. Харків, 2016. Вип. 32. С. 107–124.

<sup>31</sup> Геєць В. М. Пріоритезація та комерціалізація інноваційних розробок НАН України (стенограма доповіді на засіданні Президії НАН України 27 листопада 2024 р.). *Вісник Національної академії наук України*. 2025. № 1. С. 52–54. URL: <http://jnas.nbuv.gov.ua/article/UJRN-0001539304>

<sup>32</sup> Konovalova V. O. & Shevchuk V. M. Modern criminalistics in the conditions of war: problems of adaptation and reload. *Modern research in world science* : Proceedings of the 5<sup>th</sup> International scientific and practical conference (August 7–9, 2022). SPC – Sci-conf.com.ua. Lviv, Ukraine, 2022, 896–903.

Prioritization is a driving force, a strategy for the development of the state, an important element in the system of ensuring the national security and defense capability of the country<sup>33</sup>. The prioritization of the development of Ukraine is aimed at solving a number of key tasks of the state, which are related to the socio-economic development of the country, ensuring national security, defense and sovereignty of Ukraine, strengthening democratic institutions, as well as modernization of the economy, in particular by supporting high-tech industries, such as energy, agro-industrial complex, IT sector, transport and logistics<sup>34</sup>. The key processes are the combination of industrial development with the transformation to a high-tech economy, as well as ensuring sustainable development through the combination of social justice, environmental security and economic growth. Prioritization is an effective tool for solving tasks of modern development, ensuring national security in times of war, as well as post-war recovery of our state and the strategy of its further sustainable development.

Prioritization processes in Ukraine are part of the state's criminal law policy, which determines the priorities and strategy for the development and reform of law enforcement agencies as part of the security and defense sector<sup>35</sup>. This policy includes defining key areas of activity, resource allocation, and setting priorities for law enforcement agencies. Such prioritization processes in our country are an important tool for ensuring effective criminal law policy and reforming law enforcement agencies aimed at achieving stability, security, peace and justice in society.

In this sense, prioritization is an integral part of the criminal law policy, which determines the priorities and strategy of reforming criminal justice bodies for effective countermeasures against modern crime. On the basis of these priorities, the criminal law policy is formed, which determines the priorities and strategy of the development and functioning of the state<sup>36</sup>. With the help of criminal law policy and ranking and development of strategic priorities, the criminal policy of the state in the field of combating crime is formed.

The processes of prioritization significantly affect the strategy of the development of criminal justice bodies in the conditions of martial law and post-war recovery for effective counteraction to modern crime and ensuring law and order, national security and defense of Ukraine. Such trends and processes include systemic improvement, development and modernization, and reformation of law and order

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<sup>33</sup> Гроулін В.П., Качинський А. Б. Стратегічне планування : вирішення проблем національної безпеки: монографія. Київ : НІСД, 2010. 288 с. С. 19–53. URL: [https://niss.gov.ua/sites/default/files/2011-07/Gorbulin\\_Kachynsky-e2dd0.pdf](https://niss.gov.ua/sites/default/files/2011-07/Gorbulin_Kachynsky-e2dd0.pdf)

<sup>34</sup> Пріоритети розвитку реального сектора в умовах війни та повсюдного відновлення економіки України : аналіт. доп. / [О. В. Собкевич, А. В. Шевченко, В. М. Русан та ін.] ; за заг. ред. Я. А. Жаліла. Київ : НІСД, 2024. с. 19–53. URL: <https://doi.org/10.53679/NISS-analytrep.2024.03>

<sup>35</sup> Про Комплексний стратегічний план реформування органів правопорядку як частини сектору безпеки і оборони України на 2023–2027 роки URL: <https://zakon.rada.gov.ua/laws/show/273/2023#n9>

<sup>36</sup> Konovalova, V. O., Shevchuk, V. M. Innovations in the methodic of teaching criminalistics in modern realities of war. *Modern scientific research: achievements, innovations and development prospects* : 15th International scientific and practical conference (August 14–16, 2022). Berlin, Germany, 2022, 385–396.

bodies and justice in modern conditions. Prioritization affects the choice of priorities for the reform of criminal justice bodies, courts, law and order and determines the strategy of their further development and effective functioning<sup>37</sup>.

Conceptual in the formation of the criminalistic theory of prioritization and the application of its provisions in practice in various spheres of activity, including the activity of criminal justice bodies in combating crime and solving criminalistic (procedural) tasks, the problem of clarifying the essence of the concepts «priority», «priority», «prioritization» arises.

In the Ukrainian explanatory dictionary, the term «priority» is considered as: primacy in any discovery, invention, expression of an idea; the predominant, leading meaning of someone, something; advantage of defects by someone, something<sup>38</sup>. In the dictionary of the Ukrainian language, «priority» is interpreted as primacy, priority or the right of something; it means that one element (word, idea, program, statement) has a higher value or higher priority compared to others; property and state by importance, priority<sup>39</sup>. «Prioritization» in explanatory dictionaries means: the process of determining priorities, ranking tasks, depending on their importance, urgency, complexity, priority of the implementation of various tasks, actions, projects, etc.; the process of determining the order in which certain tasks, goals, or objects should be performed or receive attention, depending on their importance; the order of establishing the superiority of one task over others or determining a certain leading value of something<sup>40</sup>.

So, the relationship between the concepts of «prioritization», «priority», «priority» is traced, which makes it possible to find out the relationship between them. Prioritization is seen as the process of determining the importance of tasks or actions, priority is a higher rank given to something that is most important, and prioritization is a state where tasks are arranged in a certain order of importance. As for the relationship between these concepts, it is possible to establish a certain regularity and peculiarities of the relationship between them: prioritization creates priorities, and priority describes the result of this process, where the ratio of criteria (importance, urgency, priority, etc.) is key in decision-making. Given the above, it can be concluded that: a) prioritization is the process of lining up and ranking tasks, projects or decisions in order of importance, urgency, complexity, etc.; in relation to priority, prioritization is ordering by priority, i.e. arranging things in order of decreasing importance according to key priorities; it helps to structure tasks, work and efficiently allocate time and resources; b) priority – the highest rank in strategic planning or the most important position in the sequence; in relation to prioritization, priority is the

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<sup>37</sup> Стратегія розвитку прокуратури на 2025–2028 роки. Наказ Генерального прокурора 08 жовтня 2025 року № 322. URL: <https://drive.google.com/file/d/1pqGilu67-d9MDeJY4Cd5O6qXRXxCkImQ/view>

<sup>38</sup> Великий тлумачний словник сучасної української мови (з дод. і допов.) / Уклад. і голов. ред. В.Т. Бусел. К. ; Ірпінь: ВТФ «Перун», 2005. С. 1142. URL: <https://archive.org/details/velykyslovnyk/page/4/mode/2up>

<sup>39</sup> Пріоритетність. Словник української мови у 20 томах онлайн 2010–2025 (SLOVARonline). URL: <https://surl.li/bfcjrz>

<sup>40</sup> Пріоритизація. Словник | Glosbe. URL: <https://uk.glosbe.com/uk/uk/пріоритизація>

result of prioritization – it is what you get when you identify the most important tasks; c) priority is a state when something has a certain priority or rank, in fact it determines the degree of importance of the task, priority; relative to priority, priority is essentially a scale that describes the priorities of all items in a certain sequence.

Prioritization in criminalistics should be considered as a dynamic process of hierarchization and ranking of fundamental and applied tasks of science, the results of scientific developments, as well as technical, tactical, methodological and forensic means, technologies and complexes aimed at solving individual forensic (tactical) and other tasks of investigation and trial. The purpose of this process is to optimize criminal proceedings by concentrating resources on the most relevant areas. In a systemic sense, prioritization acts as a mechanism of strategic management of forensic support, which determines: a) the algorithmic sequence of implementation of scientific achievements and the latest technologies to achieve the goals of the judiciary, especially in conditions of resource and time constraints; b) ranking (line-up) of the order of use of procedural means of investigation and the sequence of solving tactical (procedural) tasks in conditions of situational uncertainty and excessive workload of investigative and operative units during pre-trial investigation and judges in court hearings of criminal proceedings.

In modern realities, the fundamental task of criminalistics is the development and implementation of highly effective means, techniques and methods of collecting, researching and using evidentiary information in the conditions of military and global security threats. Under such circumstances, the prioritization of forensic support for the investigation of war crimes becomes critically important. The main task of such technology is the mobilization of all available national and international legal instruments to ensure the inevitability of criminal responsibility of everyone guilty of Russian armed aggression<sup>41</sup>. At the same time, practice shows that the resources of law enforcement agencies are limited, and therefore it is almost impossible to effectively investigate 100% of criminal proceedings. Prioritization is considered not just a trend, but a specific requirement with defined terms of implementation, which affects the quality and effectiveness of the work of law enforcement agencies<sup>42</sup>.

Prioritization in forensics is primarily a process that manifests itself in the integration of criminalistic means, methods, technologies and the ranking of tasks of criminal proceedings in forensic activity according to priorities, which includes the development and use of special methods, techniques and tools for working with evidence and taking into account the principle of priority in pre-trial investigation and judicial review of criminal proceedings in the conditions of digitalization

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<sup>41</sup> Konovalova V. O., Shevchuk V. M. Innovations in the methodic of teaching criminalistics in modern realities of war. *Modern scientific research: achievements, innovations and development prospects* : Proceedings of the 15th International scientific and practical conference (August 14–16, 2022). MDPC Publishing, Berlin, Germany. 2022. Pp. 385-396.

<sup>42</sup> Цивінський О. У фокусі – головне: як (не) працює пріоритезація кримінальних проваджень. Discussion Paper. 8 с. URL: <https://lnk.ua/04omQGL19>

and Europeanization of social and legal relations<sup>43</sup>. It enables the search, discovery, acquisition, preservation and investigation of evidence for the effective detection and investigation of criminal offences.

Interdependence of the processes of prioritization and technologization of criminalistics and forensic examination determines the vector of formation of the modern scientific paradigm<sup>44</sup>. These processes directly affect the development, proposal and adoption of innovative criminalistic solutions adapted to modern requirements of practice and law enforcement needs. The key function of prioritization in criminalistic is to ensure a strategic advantage in solving complex procedural, tactical and expert tasks, which is achieved by focusing resources on priority areas of activity in the process of pre-trial investigation, court proceedings and criminal justice in general.

Prioritization is an integral part of systemic and structural analysis in forensics. The use of such an analysis makes it possible to establish how each element of a criminal offense is correlated and connected with others, that is, it makes it possible to establish cause-and-effect relationships, which is important in the process of proof. Prioritization allows you to move from an intuitive search to a logical and systematic investigation process, where every step, every decision made is substantiated from the point of view of its value, priority for achieving the goal – disclosure, investigation of a criminal offense and resolution of judicial tasks in accordance with Art. 2 of the CCP of Ukraine.

### **3. Modern understanding and perspectives of prioritization in criminology and forensic examination**

Prioritization in forensics is primarily related to the processes and procedures of applying priorities regarding the development and application of technical, tactical, methodological and criminalistic means and technologies aimed at solving tactical and strategic tasks of investigation and trial, technologies for conducting tactical operations, individual investigative (search) actions and forensic examinations aimed at solving criminalistic tasks by importance and other criteria, in the process of criminal proceedings.

The modern understanding of forensic prioritization in criminalistic is defined on two levels: theoretical and practical. The theoretical level involves scientific provisions and general principles of prioritization in forensic science, and the practical level – direct application of forensic knowledge, methods, tools and technologies, taking into account the provisions of prioritization in pre-trial investigation and court proceedings.

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<sup>43</sup> Аналітична записка щодо можливості цифровізації механізмів пріоритезації кримінальних проваджень. Харків : Науково-дослідний інститут вивчення проблем злочинності імені академіка В.В. Сташиса Національної академії правових наук України, 2023. URL: [https://ivpz.kh.ua/wp-content/uploads/2023/08/Аналітична-записка-щодо-можливості-цифровізації-механізмів-пріоритезації-кримінальних-проваджень\\_compressed.pdf](https://ivpz.kh.ua/wp-content/uploads/2023/08/Аналітична-записка-щодо-можливості-цифровізації-механізмів-пріоритезації-кримінальних-проваджень_compressed.pdf)

<sup>44</sup> Aydeeva G. K., Zhuravel V. A., Kapustina M. Technologization of iatrogenic crime investigation process. *Wiadomości Lekarskie*. 2025, (12), pp. 2830–2836. DOI: <https://doi.org/10.36740/WLek/214048>

It is possible to single out different levels and directions of prioritization of criminology, forensic examination, criminal proceedings, judicial proceedings in general, as well as prioritization of forensic didactics, the process of teaching criminalistics. The processes of prioritization of criminalistic science are observed in all sections of forensic science, in particular, in the general theory of criminalistics, forensic technique, tactics and methodology. At the same time, it can be argued that today the scientific prerequisites for the formation of a new strategic direction in forensics have been created – criminalistic prioritization or criminalistic research of prioritization in criminal proceedings. At the same time, these problems require special research and lead to the need for further scientific research.

It is worth noting that along with the prioritization of criminalistics, the prioritization of pre-trial investigation and trial is of particular importance. In this sense, it is rightly noted in the professional literature that the prioritization of criminal proceedings, in particular, at the stage of pre-trial investigation, belongs to the issues of organization of pre-trial investigation. Prioritization in procedural activities can refer not only to the prioritization of criminal proceedings, but also to the sequence of carrying out certain procedural actions or making decisions<sup>45</sup>.

It is seen that the prioritization of criminal proceedings in the conditions of limited resources of the law enforcement system is one of the complex tasks of the development of this system. The ideas of prioritization are not only based on the effective management of criminal proceedings, but also on a systematic and economic analysis of law enforcement issues, as well as on a consistent and formalized criminal policy, reliable knowledge about crime, available criminalistic countermeasures, which requires effective prevention on the one hand, and effective countermeasures on the other hand, taking into account priority directions in the fight against crime.

The prioritization of criminal proceedings has multi-vector relationships with technology, it is in a state of close methodological correlation with the processes of implementing technical, tactical, and methodological criminalistic tools, criminalistic algorithms and programs, as well as tactical forensic complexes (tactical combinations, operational-tactical operations, tactical operations). In this system, the processes of prioritization act as a regulatory mechanism that determines the sequence of implementation of individual investigative (search) actions, covert investigative (search) actions, tactical combinations and operations. Within this paradigm, prioritization ensures a rational sequence of conducting SRD, NSRD, tactical- criminalistic complexes, conducting forensic examinations and using the latest technologies, which is critically important for the effective solution of tactical and strategic tasks, both at the stage of pre-trial investigation and during court proceedings.

Prioritization in the investigation of criminal offenses is determined by a number of tasks and factors that influence the selection of objects and the subject of

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<sup>45</sup> Пашковський М.І. Пріоритезація кримінальних проваджень за статтею 438 КК України: перспективи цифровізації. *Альманах наукових праць фахівців НДІ вивчення проблем злочинності імені академіка В. В. Сташиса НАПрН України за результатами досліджень у 2022 р.* ; НДІ вивч. проблем злочинності ім. акад. В. В. Сташиса НАПрН України. Харків: Право, 2023. С. 87.

investigation and the allocation of resources to solve the tasks of criminal justice. The main criteria for prioritization are the severity of the criminal offense, public danger, social significance and availability of evidence. In some cases, investigative bodies determine priorities based on legislation, instructions and the operational situation. In addition, the priority in the pre-trial investigation often depends on the public resonance of the committed criminal offense, the presence and number of victims, as well as the requirements of the criminal process. In practice, priority is given to criminal proceedings that cause significant public interest or significant pressure from the public and interested parties.

Prioritization in forensic examination is characterized by a specific determination caused by the special procedural status of expert research. In this area, priority is imperatively given to objectivity, scientific validity and comprehensiveness of the conclusion, which is based on the professional knowledge of the forensic expert<sup>46</sup>. The process of prioritization is revealed here due to a set of factors, among which the expert's duty to personally conduct expert research and provide comprehensive answers to the questions provided that the object of forensic examination is unconditionally ensured.

The process of prioritization in the field of forensic examination is based on the observance of a number of fundamental principles that determine the quality of the evidence base and the legal force of the expert opinion. Based on the analysis of modern trends in technology and digitalization of expert support, it is advisable to single out the following key priorities: 1) objectivity and independence; 2) completeness and comprehensiveness of the research; 3) the principle of personal performance; 4) preservation of the object of examination; 5) communicative function and participation of an expert in a court session<sup>47</sup>.

The analysis of the above-mentioned priorities shows that prioritization in forensic examination is a dynamic category that requires further in-depth scientific research in this field of knowledge. This becomes particularly relevant in the conditions of modern digitalization and the introduction of automated analytical systems in forensic expert research, which creates new challenges for the traditional principles of objectivity and personal performance of expert research. Modern technology requires rethinking the limits of the expert's competence when interacting with artificial intelligence, so that the algorithmization of processes does not nullify his procedural independence and responsibility for the result of the forensic examination. Thus, prioritization in criminal proceedings is implemented through a system of strategic approaches to the organization of procedural activities, namely: a) optimization of the evidence base, which is associated with a primary focus on collecting the most relevant evidence (physical objects, eyewitness testimony, expert opinions), which are of decisive importance for establishing the truth;

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<sup>46</sup> Zhuravel V. A., Konovalova V. O., Avdeyeva G. K. Reliability evaluation of a forensic expert's opinion: World practices and Ukrainian realities. *Journal of the National Academy of Legal Sciences of Ukraine*. 2021. Vol. 28 (2). P. 252–261.

<sup>47</sup> Petrova I., Dukhnenko D., Kipusheva T. The application of separate criteria for evaluating the expert conclusion by the investigating judge at the pre-trial investigation stage. *Visegrad Journal on Human Rights*. 2023. № 2. P. 83–88. URL: <https://journals.urau.ua/journal-vjhr/article/view/295356>

b) effectiveness and efficiency of investigative (search) actions, which ensures and creates conditions for giving priority to measures, the results of which can be leveled over time (survey of the scene of the incident, urgent interrogations, etc.); c) differentiation of judicial proceedings, which causes the court to determine the order of consideration of criminal proceedings based on their complexity, the gravity of the criminal offense and the state of the evidence base; d) ensuring and implementing the rights of the participants, since here unconditional priority is given to the protection of the rights and legitimate interests of the victims, suspects and other parties to the process; e) strategic planning of the investigation, which involves a rational alternation of overt and covert investigative actions to achieve maximum effectiveness of the evidence process in criminal proceedings.

It is seen that the mechanism of prioritization in criminal proceedings is manifested through a complex ranking of procedural actions, organizational and tactical means of investigation, tactical techniques, combinations and operations. In particular, this refers to the priority collection of the most important evidence and the immediate conduct of investigative (search) actions, the results of which may be lost over time or destroyed by interested persons. In court proceedings, the priority is determined by the complexity of the criminal proceedings and its importance for the objectivity and completeness of the pre-trial investigation and trial, while in the field of ensuring the rights of the participants, the priority always remains on the side of the legal interests of the person and the citizen. In addition, prioritization determines the effective sequence of investigative (search) actions, covert investigative (search) actions and security measures, which directly affects the effectiveness of the entire process of investigation and trial of criminal proceedings<sup>48</sup>.

Within the framework of criminal proceedings, prioritization appears as a process of hierarchization of procedural means of investigation and trial, aimed at optimizing and maximizing the effectiveness of solving the tasks of criminal justice. It involves a strategic determination of the priority of investigative (search) actions and circumstances to be proven, ensuring a rational selection of the most relevant evidence. In the conditions of the intensification of digitalization processes, such prioritization is transformed into a mechanism for optimizing time, technical resources, and digital technologies, which allows the court and pretrial investigation bodies to concentrate efforts on key aspects of criminal proceedings, guaranteeing the efficiency and quality of the trial. It can be seen that the prioritization of criminal proceedings is a complex dynamic process of ranking and hierarchizing the tasks of pre-trial investigation and trial. Implementation of prioritization allows the investigator and other subjects of the proceedings to focus intellectual and technical efforts on the most significant or urgent, key aspects, which ensures optimal allocation of limited resources to achieve the strategic goal of the investigation.

The analysis of investigative and judicial practice convincingly proves that the systematic application of the prioritization method allows for the effective processing of significant arrays of criminal proceedings, eliminating critical risks of losing

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<sup>48</sup> Стратонов В. М. До методологічних проблем криміналістичної теорії пізнавальної діяльності. *Учені записки Тавричного нац. ун-ту ім. В. І. Вернадського. Серія «Юридичні науки»*. 2010. № 2. Т. 23 (62). С. 261–268.

the evidence base, especially that which is prone to rapid degradation (digital traces, biological samples). In addition, this approach acts as a reliable safeguard against missing procedural deadlines, which is decisive for ensuring the right to a fair trial within a reasonable time.

Under such circumstances, the process of prioritization is finally transformed from a highly specialized method into a complex management strategy in criminology and law enforcement practice. It acts as a fundamental guarantee of compliance with the standards of completeness and comprehensiveness of the investigation of the circumstances of criminal proceedings, even under conditions of overload and critical intensity of the work of pre-trial investigation bodies and the judicial system in conditions of uncertainty. Such a strategic approach to the criminal proceedings process not only optimizes internal work processes, but also increases the overall level of trust in the criminal justice system, ensuring that no socially dangerous case of criminal proceedings is overlooked by justice due to a shortage of time or human resources.

Summarizing what has been said, it should be stated that prioritization is a fundamental trend in the development of modern criminalistics, which determines the introduction of the latest scientific achievements and high-tech tools to intensify the investigation and trial processes. It can be seen that the modern paradigm of prioritization in forensic science is implemented on two interrelated levels: theoretical-methodological and pragmatic-applied. The theoretical level covers the development of fundamental scientific provisions, conceptual foundations and a categorical apparatus of prioritization, which form a methodological base for updating forensic techniques, tactics and methods. In turn, the practical level consists in the direct implementation of forensic tools, methods and technologies through the prism of established priorities within the process of a specific pre-trial investigation and court proceedings. Such a two-level structure allows not only to ensure the scientific validity of management (tactical, procedural) decisions of the investigator (detective, prosecutor), but also to guarantee the high adaptability of the tools and technologies of criminalistic support of the activities of criminal justice bodies to the dynamic challenges and threats of modern crime.

Processes and trends of prioritization are clearly visible in all structural elements and sections of criminalistics: from general theory to criminalistic techniques, tactics and methods of investigating certain types of criminal offenses<sup>49</sup>. The analysis of the current state of scientific developments gives grounds for asserting that objective prerequisites for identifying a new strategic direction – criminalistic prioritization or forensic research of prioritization in criminal proceedings – have been formed today. This scientific direction is strategic and very promising for the development of science and improvement of practice and requires further special scientific research.

Prioritization in criminalistics should be understood as a dynamic process of hierarchization and ranking of tasks of science, promising directions of scientific research, as well as technical, tactical and methodological forensic means,

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<sup>49</sup> Шепітько В. Ю. Криміналістика як система наукових знань в умовах глобальних загроз і трансформації злочинності. *Теорія та практика судової експертизи і криміналістики*. 2018. Вип. 18. С. 4–9. DOI: <https://doi.org/10.32353/khrife.2018.01>.

technologies and complexes. The functional purpose of this process is to provide an optimal algorithm for solving tactical and other criminalistic tasks with the aim of system optimization and increasing the effectiveness of criminal proceedings in the conditions of modern challenges. This conceptualization makes it possible to consider prioritization not simply as an auxiliary element and toolkit for increasing the effectiveness of criminal proceedings, but as a strategic vector and methodological foundation for the transformation and renewal of forensics tools and methods, adapting them to the requirements of digital technologies, military challenges, and the limited resources of the law enforcement and judicial system in combating crime.

In the system of modern criminal justice, prioritization appears as a fundamental process of determining the importance and priority of means, procedural actions and strategic tasks of investigation and trial<sup>50</sup>. The prioritization of criminal proceedings should be considered as a complex mechanism of hierarchization and establishment of the optimal sequence of solving cognitive tasks, which is directly correlated with the scientifically based choice of technical, tactical, methodological and forensic tools and procedural means aimed at maximizing the effectiveness of criminal proceedings.

Prioritization can be used to solve issues of organization and planning of criminal proceedings and it acts as a basis for the technological development of the formation of criminalistic means, technologies and complexes aimed at solving individual forensic (tactical) and other tasks, taking into account typical investigative situations. Acting as a strategic vector for the development of criminalistics, prioritization determines the logic of the deployment of criminalistic research and the introduction of innovative technologies in criminal proceedings. It structures the criminalistic toolkit in accordance with the current challenges of crime, the tasks of countering it, ensuring flexibility, targeting and effectiveness of forensic support for investigation and trial of criminal proceedings.

Prioritization, as a strategic direction, is also important and necessary for the investigation of war crimes in Ukraine. Scientific substantiation of the order and sequence of investigative (search) actions, covert investigative (search) actions and tactical criminalistic complexes in war zones and de-occupied territories allows to preserve the most «fragile» evidence, which is of key importance for international justice. The investigation of war crimes must be carried out through the prism of technology, and this requires the use of expensive technologies (DNA identification, Blockchain Forensics, AI analysis of satellite images), and in turn, prioritization allows to rationally distribute this high-tech potential, directing it to proceedings with the highest evidentiary efficiency. Prioritization in criminal proceedings is related to the formation and implementation of a risk-oriented approach. It is believed that the newest methodological basis of prioritization is risk assessment and forecasting (loss of ephemeral evidence, digital destruction, avoidance of responsibility). This makes it possible to move from the linear order of the investigation to the model of «anticipatory intervention», where the priority

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<sup>50</sup> Шевчук В.М. Інновації у криміналістичній техніці: сучасні можливості застосування. *Науковий вісник Міжнародного гуманітарного університету. Серія «Юриспруденція»*. 2020. № 43. С. 146–151.

criteria are determined by the degree of uncertainty and the time sensitivity of the evidentiary information. The connection of prioritization with the risk-oriented paradigm forms a new type of criminalistic knowledge – preventive-strategic. It is a system of knowledge about how to use criminalistic tools and technologies (OSINT, Blockchain Forensics) to identify risks at the stage of the origin of criminal intent or before the physical destruction of traces by criminals.

Implementation of the risk-oriented model allows the investigator and the prosecutor to strategically rank criminal proceedings. Prioritization is determined through a «risk matrix», where high scores are given to procedural actions, tools, and technologies whose immediate implementation is critical to the success of the entire investigation. Technologization (for example, the use of AI to analyze big data) allows you to automate this process, revealing hidden risks that cannot be evaluated subjectively. Prioritization in criminal proceedings is a form of implementation of the risk-oriented paradigm, which allows to replace the traditional model of investigation with a model of predictive forensic support for crime prevention. This ensures that resources are concentrated on neutralizing critical risks of evidence loss, which is strategically important for justice in wartime and postwar times.

## CONCLUSIONS

In view of the above, we note that the prioritization of criminalistics, pre-trial investigation and trial acts as a strategic vector for the development of modern science and law enforcement practice. Today, it necessitates the implementation of innovative criminalistic tools and combating crime through the prism of the value hierarchy, where the protection of fundamental human rights and the strategic interests of the state is dominant. Within the system-structural approach, prioritization evolves from an applied management function into a criminalistic strategy. It is transformed into a peculiar mechanism and system of hierarchical ordering of procedural actions, where the priority shifts towards the study of the key elements of the mechanism of criminal activity. At the same time, prioritization ensures not only the effectiveness of the investigation, but also the high quality and efficiency of court proceedings, which is a mandatory prerequisite for the functioning of the rule of law. The application of the principle of prioritization acts as a guarantor of the efficiency and fairness of criminal proceedings.

The scientific legacy of Hans Gross remains a living intellectual source for modern criminalistics. His praxeological approach, which required maximum efficiency and reliance on objective scientific data, became the foundation for the modern concept of prioritization. The main transformation consists in the transition from the individual selection of circumstances of criminal proceedings by one investigator to the state strategy of managing criminal prosecution. Today – prioritization is a means of ensuring justice in resource-constrained environments, where Gross's visions of «scientific inquiry» are scaled to the level of global analytical systems. This allows you to focus the efforts of justice on the most critical security challenges, while preserving the scientific methodology that was established at the end of the 19th century, and today it helps practical workers to effectively counter modern crime with traditional and innovative criminalistics tools and technologies.

## SUMMARY

The study carried out a comprehensive analysis of the formation and evolution of the concept of prioritization in forensic science. The historical origins of the praxeological approach are considered, the transformation of Hans Gross's views into modern investigative management strategies is analyzed, and the need for the introduction of the latest approaches and research criteria for prioritization in criminology, forensics, and criminal proceedings is substantiated. The genesis of forensic praxeology is studied through the prism of the scientific heritage of Hans Gross. It was established that his scientific works were the first attempt to rationalize criminal proceedings not only as a legal, but as an organizational and technical process. It was determined that Gross's idea of an investigator's «intellectual filter»—the ability to instantly single out the most informative evidence from an array of secondary information – is the primary historical prototype of modern tactical prioritization. The evolutionary stages of the formation of the concept of prioritization are considered: from the individual skill of the «investigator-encyclopedist» to the systematic management of the resources of law enforcement agencies. The author analyzes in detail the transition from a reactive model of investigation (reaction to each individual fact) to a proactive model (Intelligence-Led Policing). It has been established that modern prioritization is based on the analysis of *Modus Operandi* and network connections of crime, which directly develops Gross's ideas about the systematicity of forensic knowledge. The introduction of solvability factors as the main tool of the modern praxeology of criminology is substantiated. It has been proven that in the conditions of digital transformation and «information explosion» (Big Data) it is impossible to ensure equal intensity of investigation of all categories of cases. The need for a strategic distribution of expert resources in favor of cases with a high probability of identifying the criminal using modern DNA technologies and digital criminalistics is substantiated.

Current problems of today are studied, in particular, the conflict between the principle of publicity (obligatory investigation of every crime) and the praxeological expediency of prioritization. The experience of the EU countries regarding the implementation of triaging protocols in forensic examination, which allows to shorten the terms of pre-trial investigation in the most socially dangerous proceedings, is considered. The role of artificial intelligence as a modern embodiment of Hans Gross's vision of «auxiliary sciences» is substantiated. It has been proven that automated data analysis systems today perform the function of prioritizing directions of search activity, minimizing the influence of the subjective factor and human error, which were pointed out by Gross at the end of the 19th century. As a result of the study, it was proved that the concept of prioritization is a complex problem that requires further research, it is not a departure from the principles of justice, but is a necessary condition for its effectiveness in the modern era. The conclusion is drawn that the legacy of Hans Gross remains a methodological foundation for the construction of modern crime investigation algorithms and is important for criminalistic analysis, where priority is given to objective scientific data, systematicity and strategic expediency.

**Key words:** praxeology of criminalistics, Hans Gross, prioritization of investigation, forensic examination, criminalistics, special knowledge, priority of investigation tasks, resources of criminal proceedings, criminalistic innovations.

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