

Interaction of National Scientific Center «Hon. Prof. M. S. Bokarius Forensic Science Institute» with European Network of Forensic Science Institutes

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Forensic science and criminalistics are two scientific branches of the modern world that contribute to the disclosure of crimes and the administration of justice. Daily they are gaining more and more importance in our society, becoming an integral part of law and order and security.

Research Paper Collection "*Theory and Practice of Forensic Science and Criminalistics*" highlights the versatility of these disciplines in scientific, legal, and practical contexts. On its pages, scientists, researchers, and practitioners from different countries share the results of unique research, and outstanding experience, raise pressing issues and propose ways to solve them, and outline prospects for the future.

Forensic science is one of the leading tools for investigating crimes: its specialists analyze evidence and identify individuals, establish indisputable facts based on its results, and conclusions guarantee fairness in court cases. Criminalistics, in turn, plays an essential role in detecting and analyzing criminal acts, providing the necessary database for court decisions.

This issue contains research papers dedicated to various aspects of forensic science and criminalistics: updated methodological and methodical approaches and technologies, legal and applied aspects of these disciplines. We are confident that this collection will become a valuable source of information for scientists, law enforcement officers, judges, students and

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anyone interested in the work of forensic experts and criminalists.

Forensic science and criminalistics remain significant components of the modern legal order and crucial factors in ensuring justice and security in society. Our journal is aimed at the continuous development of these disciplines, promoting the exchange of knowledge and innovative research, with the goal of sustainable genesis of forensic science in general. We invite readers to the fascinating world of forensic science and criminalistics and hope that the materials in this collection will inspire you to make new achievements in these important fields.

The development of forensic science and criminalistics in Ukraine is largely due to the active cooperation of foreign and international forensic institutions with domestic ones, in particular National Scientific Center «Hon. Prof. M. S. Bokarius Forensic Science Institute» (hereinafter referred to as NSC «Hon. Prof. M. S. Bokarius FSI») with European Network of Forensic Science Institutes (ENFSI).

ENFSI unites forensic institutions from different countries to promote the exchange of knowledge and experience, training and professional development, and the creation of common standards and methodologies in forensic science.

ENFSI is proactively working to create standards and common approaches in criminalistics and forensic science which has a positive impact on the quality of forensic research and the efficiency of justice in Europe. ENFSI develops and implements standards and regulations in the field of criminalistics and forensic science to ensure uniformity of approaches and high quality of research in different countries and to form a reliable evidence base for court cases. As part of its activities, ENFSI also supports scientific papers and

the development of new methods and technologies in criminalistics and forensic science and facilitates the exchange of information and experience between forensic services from different countries.

It is worth paying special attention to the continuous development of new technologies as one of the priority areas of ENFSI's activities. Institutions that are members of this network are actively implementing modern technologies, including DNA analysis, biometrics, cyber forensics, and others, which are aimed at improving the means of detecting and investigating crimes. Overall, ENFSI's activities contribute to strengthening justice, security and the rule of law in Europe and beyond.

ENFSI annually organizes a meeting of its members to report on the results of the past year and make plans for the future. This year (24–26.05.2023) in The Hague (the Kingdom of the Netherlands), during a three-day event, seminars were held on the digitalization of forensic science and the use of artificial intelligence to optimize and improve the efficiency of forensic science. The participants discussed pressing issues, ways to solve them and areas of further cooperation between ENFSI members. At the business meetings, representatives of the ENFSI Council reported on the network's activities in 2022, discussed and agreed on the strategic development plan until 2026 and amendments to the organization's constitution, approved the financial report and budget for 2024, and considered other issues of the network's activities.

For several years now, NSCFSI and ENFSI have been cooperating in the field of forensic science and criminalistics, which contributes to improving the quality of forensic examinations, reducing the time of their execution, and the indisputability of expert opinions at the stage of justice.

ENFSI is an important tool for the exchange of knowledge and experience between forensic experts from different countries, so cooperation with such a network helps national expert institutions raise their standards and strengthen their ability to perform independent and objective examinations.

Returning to the current issue of the Research Paper Collection *“Theory and Practice of Forensic Science and Criminalistics”*, we traditionally emphasize that our scientific journal is indexed in Google Scholar, the international abstract databases Academic Scientific Journals Indexing, Bielefeld Academic Search Engine (BASE), Directory of Open Access Journals (DOAJ), Directory of Open Access Scholarly Resources (ROAD), Directory of Research Journals Indexing (DRJI), ERIH PLUS, Europub, Index Copernicus International, MIAR, Polska Bibliografia Naukowa, RefSeek, ResearchBib, Ulrich’s, WorldCat, on the website of the DOI registrar of digital identifiers, and its full-text online versions are also available on the Internet on the platforms of V. Vernadsky National Library of Ukraine, higher education institutions of the Ministry of Internal Affairs of Ukraine, etc.

The collection traditionally contains sections with research papers and scientific notes. The first article in the section with scientific papers written by Doctor of Law, Prof. **Valeriy Sokurenko** is devoted to the technical and forensic support of investigating violations of the laws and customs of war. The author aims to identify the factors that influence the technical and forensic support for the investigation of violations of the laws and customs of war; characterize the technical and forensic means in accordance with the specific situations of the crimes under study; and provide practical recommendations on the use of types and

means of forensic technology in these situations. The article substantiates that inspection of the scene of an incident (as an important source of evidence) in the occupied and de-occupied territories has its own peculiarities (due to the danger of the territories where active hostilities are taking place; physical impossibility to carry out investigative (search) actions and/or detain the perpetrators, etc.): in particular, in this case, technical and forensic means of investigating digital traces are of great importance. The subject matter of the study raises an important topic of the Ukrainian present. The author draws attention to the fact that the forensic records used for such investigations (in particular, multimodal ones) need to be improved with the use of the latest foreign experience, which will help to identify the maximum number of sources of evidentiary information and increase the efficiency and quality of its receipt.

In the article “Forensic Thermal Engineering Examination: Subject, Object, Tasks, Main Research Areas”, **Ihor Bohdaniuk**, Ph.D. in Law, Senior Researcher, examines in detail the process of forming thermal engineering research as a separate type of forensic engineering and technical examination based on the principles of genesis in forensic science, analyzes the latest developments in the use of specialized knowledge in the production, distribution, transmission and consumption of energy resources. The empirical part of this article contains an analysis of the comprehensive expert studies conducted by the NSCFSI on metering violations and theft of natural gas by interfering with metering devices, on determining the scope of work performed on the installation, testing and operation of heat engineering equipment. The author offers his own vision of the subject matter of forensic thermal examination, the

general list of tasks of forensic thermal examination with structuring into four groups, and the main areas of research in forensic thermal examination.

The next article is devoted to the importance of forensic science for the administration of justice in Ukraine. **Vadym Khosha**, Ph.D. in Law, Senior Researcher, examined the organization, specifics, and features of the judiciary, whose main task is the administration of justice. The article summarizes the legislation of Ukraine on the administration of justice and identifies the subjects involved in this type of State activity, traces the legal status of an investigating judge and clarifies his/her competence, and outlines the existing substantive and formal characteristics of the legal category of the concept of “justice” with a view to forming the range of subjects to whom expert support is directed. The author’s analysis of the most common approaches to the definition of the concept of “forensic expert activity” is quite interesting, and the features and content of this type of state activity are revealed. The result of this study is the author’s own definition of the concept of “expert support of justice”, a presentation of the modern understanding of forensic expert activity and the current list of its areas.

In the article “Legal Status and Epistemological Characterization of the Objects of Forensic Veterinary Examination”, Doctor of Veterinary Sciences, Professor **Ivan Yatsenko** offers his own formulation of the definition of “objects of forensic veterinary research” as material and materialized sources of information about the event of an offense, which a forensic expert comprehensively, fully, objectively and directly examines during forensic veterinary examination on the basis of specific expertise, using an interrelated set of methods, techniques and means to solve diagnostic and situational

expert tasks set in the procedural document on the appointment of a forensic veterinary examination (engagement of a forensic expert). Attention is drawn to the fact that the material objects of forensic veterinary examination are living expert animals and expert animal corpses, feed and feed additives, biological material of animal origin and elements of the material environment of the crime scene, and the materialized objects are case (proceedings) and materials obtained during operational search and/or investigative activities (protocol of inspection of the crime scene, diagrams, photo and video documents, etc.), veterinary documents (protocols of pathological autopsy of animal corpses, acts of epizootic inspection of the farm, protocols of registration and treatment of sick animals and issuance of veterinary documents, anamnesis and excerpt from the animal’s outpatient record, results of laboratory tests of biological fluids (blood, urine, bile, feces, gastric juice, etc.)) and bacteriological, virological, mycological studies of biological material, clinical diagnostic studies, operating permits, etc.). The proposed scientific study is very large-scale and thorough: based on his own many years of experience as a forensic expert, the author has raised important topics for forensic veterinary medicine.

The section with scientific notes opens with a review article by **Tetiana Kharina** and **Oksana Rusanova**, which discusses the invariant provisions of the definition of meaning that are repeated in different psychological concepts independently of each other. The authors note modern concepts of psychology that consider the ontological, phenomenological and activity aspects of meaning; using general theoretical methods of scientific knowledge, they highlight the main differences between cognitive and discursive psychology in terms of the theoretical basis

of psychological phenomena; highlight a number of methodological problems related to solving urgent expert tasks of forensic psychological examination (taking into account the peculiarities of conducting complex psychological and linguistic examinations). The researchers distinguish six types of the dynamic meaning system of a person (personal meaning, meaningful attitude, motive, meaningful disposition, meaningful construct and personal value), which an expert psychologist should take into account when analyzing the phenomena and patterns of meaningful regulation of human activity and consciousness in legally significant situations. The author emphasizes the multifaceted nature of semantic reality, which takes on different forms and manifests itself in various psychological effects.

The author of the following scientific notes, Ph.D. in Law, Associate Professor **Anatolii Starushkevych**, analyzes the role of the scientific method of crime investigation developed by A. Niceforo for the formation of the forensic doctrine of criminal investigation methods and forensic methodology as a component of modern criminalistics. The author of the manuscript notes that in constructing his method, A. Niceforo used general scientific methods and techniques (hypothesizing, graph method, analysis, synthesis, deduction, induction, analogy), an integrated approach, systematicity, phasing, and knowledge of psychology. Particular emphasis is placed on the role of the investigator's professional and psychological qualities required for the implementation of the analyzed method: ingenuity, observation, ability to apply logical techniques and operations (induction, deduction, analysis, hypothesis, etc.), intellectual development, and experience. A. Niceforo's method of

hypothesizing, successfully borrowed from the basic sciences, is the prototype of the modern method of verification (the method of proposing and testing versions). A. Niceforo rejected methods that could cause the subject any suffering: sleep deprivation, the use of psychotropic drugs and/or moral abuse, interrogation under hypnosis. Anatolii Starushkevych appropriately notes that the method of crime investigation according to A. Niceforo was an important step in the formation of the forensic doctrine of criminal investigation methods and the theoretical foundations of modern forensic methodology.

The section with scientific notes concludes with an article by **Viacheslav Hontarenko** on the problems of legislative regulation of forensic examinations appointed in the course of domestic violence investigations. The article analyzes in detail the criminal procedure legislation and regulations of Ukraine and foreign countries, as well as the positions of leading domestic scholars on this issue. In criminal proceedings related to domestic violence, the issue of timely appointment and conduct of examinations to establish the facts of physical, sexual, psychological or economic violence is quite relevant. These factors are mostly established by conducting forensic, forensic medical and forensic psychiatric examinations carried out exclusively by state-specialized expert institutions, which sometimes hinders a full and objective investigation and prevents participants in criminal proceedings from choosing the most qualified expert. The author makes recommendations to abolish the monopoly of state expert institutions on conducting such examinations, which will help victims realize their right to fair justice. Attention is paid to the issue of the legal capacity of the victim, whose testimony is one of

the most important sources of evidence. Since suspects are most often the objects of forensic psychiatric examination, the author proposes appropriate amendments to the Criminal Procedure Code and some regulatory legal acts. Procedure Code and some regulatory legal acts of Ukraine concerning the appointment of forensic psychiatric examination of victims.

Let us dwell on the traditional section "Scientific News". We would like to draw the attention of readers to the information about the International Scientific and Practical Conference "Current Issues of Forensic Examination and Criminalistics", which took place on May 19, 2023, at the NSCFSI.

The achievements of the scientific schools of L. Y. Arotsker and M. V. Salteviskyi, the legal regulation of forensic activities, forensic problems in the fight against organized crime, as well as current issues of the theory and practice of forensic investigation (investigation under martial law and documentation of the damage caused by the Russian aggressor to our country and its citizens) were discussed at the event.

Once again, the event organized by the NSCFSI brought together like-minded people concerned with solving the problems of forensic science and criminalistics not only in Ukraine, but also in the whole civilized world.

An equally important event was the *Annual Meeting of ENFSI members*, which is described in more detail above. The meeting in The Hague demonstrated the outstanding importance of cooperation and information exchange between

forensic scientists from different countries to improve the quality of forensic science.

An important part of the scientific life of the NSCFSI is also cooperation with the International Commission on Missing Persons, which has become especially important in light of the challenges that the war has brought to the entire Ukrainian society, including experts. Today, the issue of searching for missing persons is one of the cornerstone issues, and DNA research plays a key role in identifying such persons.

At the same time, we urge authors of scientific papers to adhere to ethical and formal standards when submitting scientific papers for publication to the Editorial Board of the Research Paper Collection "*Theory and Practice of Forensic Science and Criminalistics*". These norms are stipulated by the standards of quality of scientific papers and their presentation established in the global scientific community (in particular, Publishing Ethics Resource Kit (PERK), the recommendations of Elsevier, Committee on Publication Ethics (COPE), the Ethical Code of a Scientist of Ukraine, as well as the experience of foreign and Ukrainian professional communities, scientific organizations, editorial boards, and editorial offices).

We invite well-known and young scientists from Ukraine and abroad, graduate students of higher educational and research institutions, as well as experienced forensic experts and debutants, who have an interest and aptitude for both scientific and practical research in the field of expert assistance to justice, to publish their works in our journal.

Together we will win! Glory to Ukraine!