V. Aksonov, head of Cherkasy Scientific Research Forensic Centre of MIA of Ukraine
V. Kozhevnikov, deputy head of criminalistics department of Cherkasy Scientific Research Forensic Centre of MIA of Ukraine

THE PROBLEM OF MOCK CRIMES IDENTIFICATION REVISITED

The efficiency of forensic and technical support of detection and investigation of crimes is largely depends on the interaction between investigative units and units of the Expert Service of Ukraine.

One of the ways to reduce the number of cold cases is to improve the professional level of investigators and experts, including the theoretical knowledge and practical skills in complex ways to recognize the disguise of crimes that use offenders.

It's familiar that the crime scene is great source of information for the investigator about the mechanism of a crime, the offender and the victim, the dynamics of their interaction and motives. The crime scene search should be seen as an overview crime scene, forensic characterization which the investigator should know.

Taking into consideration the importance of detection the false traces, we want to describe the problem of disguise of crimes as a way of concealing the crime.

The purposes of concealing the crime (both committed suddenly and premeditation) are:
- conceal a crime directly;
- conceal the criminal nature of the event;
- conceal of participation in the crime committed and the intentions of the perpetrator.

The common ways of concealing crimes are hiding, concealment, destruction, falsification of information and media; and use different combinations of these methods. [3]

Mock crime is defined as "a set of actions aimed at concealing the guilt of a person who committed a specific crime by creating false understanding of that event." It provides a system of criminal action aimed at preventing the creation of traces, falsification, concealment or disguise, new tracks, proving subjects' of mock crimes version.

Concealments classified as follows:
- by the subjects of staging;
- by the location of the staging;
- by the time of mock crime;
- by the purpose and object of staging;
- by the content staging.

A wide range of ways to create the staging ground for the withdrawal of the concept of adverse circumstances - evidence and traces that do not, contrary to the facts and marks, ordinary and necessary for the explanation of certain events.

For establishing the fact of mock crime one should accumulate the information about the event, review revealed trace information, comparing it with versions of victims or witnesses (in fact, those who committed the crime or their accomplices). Identifying the elements of mock crime will give the possibility to the investigator to find out the other components of fact of staging and thus establish the truth in criminal proceedings, to expose criminals in an attempt to mock crime, determine the causes and conditions that contributed to its staging.

P. Antoniuk, PhD in Law, Professor of criminalistics and forensic department of National Academy of Internal Affairs

ORGANIZATIONAL AND TACTIC ASPECTS OF COERCIVE SEIZURE OF BIOLOGICAL SAMPLES FROM A PERSON IN CRIMINAL PROCEEDINGS

During the implementation of evidence in criminal proceedings one of the legitimate means of collection, verification and evaluation of evidence is the examination. The expert opinion is procedural source of evidence, and the evidence contained therein and relevant for criminal proceedings - evidence. The evidence contained in the expert is evaluated as valid if they are received in accordance with the procedure established by the Criminal Procedure Code of Ukraine. That is, the evidence obtained as a result of the examination may be deemed inadmissible by the court if broken the procedure for obtaining samples for examination.

Based on the proposed procedural law classification in biological samples person should understand all samples associated with the life of people as biological beings: the fingerprint templates hands, handwriting, voice broadcasting and person, samples of prints tooth prints all surfaces of the human body (lips, elbows, feet, etc.) olfactory traces of man and all biological samples in their classical sense (saliva, blood, semen, sweat, hair, nails, etc.).

Proper understanding of the type and nature of biological samples person will not only tactically organize their weaning process, but also ensures compliance with the procedural order of their appearance in the materials of the proceedings that further opportunities would deprive interested party to declare their inadmissibility.

The current Criminal Procedure Law is characterized by the fact that many stories, declared it does not have a clear mechanism for implementation, which certainly complicates the work of the pre-trial investigation.

In such circumstances, in the event in the process of proving the need for compulsorily taking away biological samples from a person in the first place raises the professional competence of the subject of the investigation: the ability to efficiently organize the proceedings of the skills and techniques of investigative methods and tactics.

So, given the nature of the problem of forced weaning biological samples person in criminal proceedings as because of lack of regulatory mechanism secured its implementation and in view of certain natural limitations of human rights, the effectiveness and legitimacy of this proceedings depends on the professional competence of the subject of investigation which includes: proper understanding of biological samples, quality organization of investigation (investigative) action, choice of tactical courses to influence the person. Consideration of proposed issues, in our view, will allow law enforcement officials to enforce weaning biological samples person in criminal proceedings without the humiliation of honour and dignity or harm her health.

P. Bilenchuk, PhD in Law, Professor of intellectual property and innovative technologies sector of Kyiv Law University of National Academy of science of Ukraine

O. Shulga, head of the sector of Kyiv scientific research Forensic Center of MIA of Ukraine

LEGAL AND SCIENTIFIC SUPPORT OF CULTURAL HERITAGE, CULTURAL VALUES AND ART RESEARCH

Cultural heritage, cultural values, unique works of art are the basis in building a model of the Ukrainian state.

The results of the researches summaries indicate that the legal and scientific support of art research in Ukraine attracted the attention of researchers, but require further development.

The Law of Ukraine "On Protection of Cultural Heritage", adopted by the Verkhovna Rada of Ukraine in June 8, 2000 formulated the essential characteristics of the definition of cultural heritage as a combination of inherited humanity from previous generations of cultural heritage. The Law classified the cultural heritage, cultural values and art.

The Law of Ukraine "On export, import and return of cultural property", adopted by the Parliament of Ukraine on September 21, 1999 determines the exact list of items in the understanding of cultural values, objects of material and spiritual culture, which are of great artistic, historical, ethnographic and scientific value.

In this Act, the definition of cultural values is coincided with the provisions of the Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property 1970. The law also defines the cultural values that can't be exported without a special certificate from Ukraine, and the categories of cultural property are not subject to export from Ukraine the cultural values of the National Archives and museum funds and those that are listed in the State Register of Cultural property.

However, Ukraine has no special law on circulation of cultural property on territory of Ukraine. Ukrainian legislation also does not identify those cultural values that can't be freely sold or bought, such as antique weapons or archaeological finds, etc.

Today the expert institutions of Ukraine perform the practical implementation of new ideas in art studies.

One of the new directions of SSRFC of MIA Ukraine and its departments is researches in the field of art.

In the structure of SSRFC was created a separate department of photo technique, portraits, art and psychological research, where the art-examinations are conducted.

Art expertise allows us to research the following items:

-antiques and art, including visual (painting, sculpture, graphics), arts and crafts (porcelain, metal, glass, stone, wood, fabric, etc.), as well as objects of numismatics, and faleristics bonistics (coins, medals, paper money), films, photographs;

-facilities for the protection of public morals, including visual information (video, audiovisual information, fixed public actions, objects made of different materials in the form of figurines, souvenirs).

The main tasks of art-examination are:

-the attribution of the work (author installation work period of the establishment, membership in a particular school, etc.);

-definition of artistic, historical significance, cultural significance and status of the work;

-authentication of the object, determine qualitative changes that occurred to him in the course of its use: the finding of restoration interventions, arbitrary seizures (losses), amendments and other alterations incurred object;

-determining the value of work;

-determination of the product conformity to the protection of public morals legislation.

Sometimes for a full and comprehensive research of art the expert should obtain permission from the originator expertise for partial damage or destruction of the object.

H. Bidniak, senior lecturer of criminalistics, forensic and psychiatry department of Dnipropetrovsk University of Internal Affairs

K. Pantelieiev, PhD in medicine, associate professor of criminalistics, forensic and psychiatry department of Dnipropetrovsk University of Internal Affairs

USE OF SPECIAL MEDICAL KNOWLEDGE DURING THE EXAMINATION OF THE CORPSE'S CLOTHING DAMAGE ON THE SPOT OF CORPSE DETECTION

A forensic expert who investigates the damage of alive or corpses is often confronted with great difficulty in determining their nature, sequence of damages, tools which could cause the damages, etc. During the examination of damages of alive persons, the difficulties are associated with changes in the initial form of the wound, in the process of its formation, as well

as its surgical treatment and healing processes. During the forensic examination of injuries on the corpse, the main difficulties are associated with the development of corpulent phenomena.

The inadequacy of the data obtained during the examination of the victim's body may be complemented by the results of studying his clothing. Clothes, as an artificial covering, protects the human body from the influence of the environment, first perceives the effect of the damaging factor. Consequently, the presence of clothes changes the pattern of damage on the body of the victim.

The barrier effect of clothing depends to a large extent on its thickness and density. The more layers of the outfit cause increasing the thickness and dense and more pronounced is the lagging effect of the garment.

Taking into consideration that the outer condition of the clothing is essential for establishing the mechanism of the event, after the inspection of the corpse and the description in the protocol of its position relative to certain objects, posts, etc., fix (without changing the position of the corpse) type, style, condition of the dress, presence or absence on it Individual elements, ruptures, layers, its correspondence to the size of the victim, etc. The main parts of clothing describes in detail in case of the detection of an unknown corpse. During the research, all the elements of the dress removed in turn, setting before it the matching of clothing to damages on the corpse. Also, the correspondence of the upper and lower elements of clothing, its smell, the degree of humidity, the localization, the size and color of the stains, the degree of impregnation of the fabric, the presence of labels about the place of manufacture of clothing.

The protocol indicates any disorder in clothe, indicate the presence of clothing that does not correspond to the height of the corpse, a sharp difference in the quality of upper and lower clothing, which may indicate, in particular, the affiliation of clothes to another person.

In addition, the presence of blood traces, semen, urine, saliva, feces, etc., is recorded on the clothes, because their appearance, shape, direction, size, color, location, degree of impregnation with tissue allows for certain conclusions to be drawn.

If some parts of the clothes are removed and located near the corpse, they should be also thoroughly inspected, as it can help to clarify some circumstances of the event.

Usually, the inspection of the corpse and clothes on the crime scene don’t permit to identify in detail all the damage. Therefore, the forensic expert should orientate about the location and nature of the injuries of the corpse, qualitatively remove the damaged items of clothing and send them to a laboratory for the study.

The review of the items of clothing is carried out in the sequence in which it is put on the corpse.

The following information should be mentioned in the protocol:

-type of the clothes on the corpse, with color indication;

-condition of clothing on the corpse (unfastened, etc.);

-presence of contaminations or human waste and their location;

-presence of damages.

The most common mistakes during the research:

- removed after the inspection clothes with damages puts on a corpse again;

- clothe are examined directly on the corpse without removing.

Such actions inevitably lead to the loss of important details; the contamination of clothing by other substances not related to the crime, etc., which may lead to the expert mistake during the subsequent inspection of the corpse in the laboratory.

In the case of firearms on the clothes of the corpse, special attention should be paid to powdered grains and their particles. Only at crime scene, forensic expert can see a complete picture of their location around the inlet. Most of the gunpowder is kept fragile on the clothes and can easily be lost (crumbling), which leads to a change in the original appearance of the area of the incoming fire outlet.

Unlike powdered grains, deposition of soot from the shot is more firmly held on clothing. Partial change (smearing) can be subjected only the soot of smoky gun, which has the

appearance of a layer of loose cover. The diameter of the deposits of soot, its color, the nature of the edges on the clothes of the corpse must necessarily reflect the in protocol of inspection. Such an assessment of the damage of the corpse's garment, together with other information, will allow the picture of the crime event to be restored.

Thus, thanks to a skilled review of the clothes of the corpse at the place of their detection, one can obtain important data to clarify the circumstances of the event. At the same time, flaws made during the review of clothing, often turn out to be irreparable and may make it impossible to answer a number of questions of interest to the investigation in the future. It explains by the fact that during the further study of clothing in the morgue and the laboratory expert is often given an already altered compared with the original picture of the damages on it.

H. Veretun, head of the sector of Kharkiv Scientific Research Forensic Centre of MIA of Ukraine

D. Chernonos, chief forensic expert of Kharkiv Scientific Research Forensic Centre of MIA of Ukraine

PROBLEMS OF FINGERPRINT VERIFICATION IN ACCESS CONTROL AND CONTROL SYSTEMS

Rapid development of the computer technology effects on fingerprints examinations. The uniqueness of a papillary pattern of a fingerprint can be successfully used instead of a password for the verification of the personality, ensuring thus reliable protection against trespassers. This fact caused to wide spread of computer fingerprints scanners. Such scanners can perform the electronic lock functions and are installed on an entrance with access for certain persons.

Only information on some special points on papillary pattern remains instead of retention of the complete image of a papillary pattern during scanning of fingerprints. That is why after the safety of information it is impossible to restore moreover a full image of fingerprint and consequently can't be respectively used. This became determinant in wide distribution of access control systems using scanning fingerprints.

This work contains the question about reliability of verification of the personality in access control systems, about possibility of sample copy fingerprints and using it by others for unsanctioned access, about technical problems of registration of fingerprints for their further identification.

The notion of identification, verification of an individual, biometric data and biometric parameters were examined. The fingerprints research is used in forensic for identification of the person by fingerprints hands and when we speaks about using of digital scanner for system security then the verification of the person is meant. At identification of the personality by a fingerprint, establish who exactly possesses fingerprints.

Identification allows get an answer to the question: who is this person, for that reason a comparison of fingerprint of the person identified, with all base registered on the fingerprint matches. Verification means comparison of the scanned fingerprint with one or several sample fingerprints, the purpose is to establish whether it is this person or not.

The most widespread types of scanning devices used in access control systems are:

- Contact optical scanners;
- Capacitive or silicon scanners;
- Scanners that generate electromagnetic field.

Currently, the structure of biometric identifiers in different access control systems to the world market is presented as follows: verification of the voice - 11% face recognition - 15%, scanning the iris - 34%, fingerprint scanning hand - 34%, the geometry of the hand - 25% signature verification - 3% [4].

Speaking about the reliability of fingerprint identification in access control systems we should consider the possibility of copying them and use by others to gain unauthorized access.

Requires attention to time as management access control systems at the initial registration (when entering traces of fingers in the database) optimal use of the device, which is able to perform a full rolling finger. It's because the most complete initial registration in the database will allow for these applications to identify the system to avoid errors caused by human factor: incorrect application of the finger to the prism Cutlery, partial damage of fingers skin.

However, it is impossible to make a comprehensive list of features you should have for a "perfect" system of electronic fingerprinting. Qualitatively designed software usually gives the system flexibility, which allows it to adapt to specific customer requirements and perform specific task.

A. Vodolazov, head of the laboratory of "Scientific and Practical Centre of the State Forensic Examination Committee of the Republic Belarus"

V. Ravenskyi, senior researcher of "Scientific and Practical Centre of the State Forensic Examination Committee of the Republic Belarus"

Yu. Lysianyi, researcher of "Scientific and Practical Centre of the State Forensic Examination Committee of the Republic Belarus"

SPECIAL SOFTWARE FOR FINGERPRINT EXAMINATION: PREMISES AND CREATING OBJECTIVES, FUNCTIONAL FILLING

The software used during fingerprint examinations is designed not only for increasing their effectiveness, but also to provide a visual representation of the report.

With the purpose of improving the process of fingerprints examinations, specialized software tools (SST) were created at the Scientific and Practical Center of the State Forensic Examination Committee of the Republic Belarus: an automated workplace "Expert fingerprint researcher" and specialized facilities for fingerprint examination of palmar surfaces.

The SST images of dactocards are automatically converted into 10 separate images of fingerprints, combined with installation information. Each image is coming with installation information in the form of a completed questionnaire.

According to the generally accepted fingerprint technique, an expert examines the identified and then identifying object (the print presented as a model for a comparative study). First of all, the common signs of the papillary pattern are examined, than the individual features. Depending on the situation, micro-signs can be also examined: pores, features of the configuration of papillary lines, details of the structure of particular features. Investigation of micro-signs becomes mandatory in cases when the expert have some hesitations after study of the general and particular features.

For the study of common features, the SST allows:

- determine in automatic mode the type of the papillary pattern with an additional separation of loop patterns on the right and left hinges;
- calculate in automatic mode the number of papillary lines that crosses a straight line drawn from the center of the pattern to the center of the delta (the "Galton Line");
- explore the absolute position and the mutual location of common features, established through measurements of linear and angular quantities;
- measure the total size of the track, after activation of which a dotted square appears on the image, bounding the print, the boundaries of which are determined automatically;
- determine the number of papillary lines that crosses a straight line of a predetermined length in a certain patch area;
- identify the individual signs of the type of papillary lines automatically;

- calculate the total number of particular characteristics in the image automatically.

The most important task of investigating individual features of the pattern is to assess their identification significance. The expert needs to determine the adequacy of the identified individual characteristics, in terms of quality and quantity, for carrying out the identification research, and at the stage of evaluating the results of the conducted study - for the formulation of report. In addition to determining the type of an individual feature, the study should to establish the location of individual features relative to the center of the pattern and (or) the delta, as well as to other individual features in the pattern.

In addition, the expert controls the correctness of the automatic functions of the SST in determining the center of the pattern and deltas, as well as determining the type of the pattern. In the process of checking the results of the automatic determination of common characteristics, the expert can provide with the functions of deleting or adding a common characteristic mark, changing its location and orientation.

SST allows solve the problem of localization of the print-forming part of the hand successfully. Automatic localization greatly facilitates the process of conducting a comparative study, providing the expert with additional formalized reasons that increase the objectivity of the study and virtually eliminating the possibility of giving erroneous conclusions, including a report on the impossibility of resolving the issue.

To conduct a comparative study, SST automatically generates pairs in which the traces compared are reduced in different combinations. So, if it is necessary to conduct a comparative study of the trace with a fingerprint, a list of pairs is formed, in which the checked finger will be matched with each finger on the fingerprint. Formed pairs are previously compared in automatic mode, and the results of the comparison are displayed in the form of a table. On the first lines in the table are images of pairs of traces, most coincident by common and particular characteristics.

When you move to a specific pair of traces being compared, two images are displayed on the monitor, each of which has already been signed matching and different characteristics. Trace images are automatically reduced to a single scale and aligned in accordance with information about the location of the integral points of the papillary pattern and the direction of their flows.

It is possible to apply various graphic filters to the compared images - both to the entire track and to its individual section.

Visual comparison using the SST allows you change the scale for both images smoothly and synchronously and highlight pairs of coinciding partial characteristics

Comparison of tracks can also be carried out by the method of imposition of images.

The traces that have been compared are placed in the photo table. When forming a photo table, images of compared traces and control pictures are arranged in accordance with the rules adopted in forensic science.

The use of SST during fingerprint examination will allow examining the signs of a papillary pattern with tools that give a formalized result. The expert's conclusion becomes more evident, providing an opportunity for a comprehensive critical assessment of the completeness and correctness of the research conducted.

O. Vorobei, post-graduate student of forensic department of National Academy if Internal Affairs

USE OF SPECIAL KNOWLEDGE AND CERTAIN TYPES OF FORENSIC EXAMINATIONS IN THE INVESTIGATION OF CRIMINAL OFFENCES RELATED TO THE ACTIVITIES OF CONVERSION CENTERS

During the pre-trial investigation of crimes, the investigators deal with traditional forensics, and non-traditional anti criminal activities and evidence. In such cases, for the proper

preparation and organization of investigation, detection and estimation of all necessary circumstances for criminal proceedings, only basic legal training of the investigator is not enough. To ensure proper performance of individual investigative (search) actions is desirable, and even mandatory, should be considered as part of expert or specialist in carrying out appropriate actions.

Expertise should be appointed only when it's really necessary, if the expert's response to some questions is not enough to establish the truth in criminal proceedings. This requires a process of investigation of activity of "conversion centers".

The issues of examination of this category of criminal offences imposed at the discretion of the investigator, who makes a decision based on the particular circumstances of criminal proceedings and the impossibility of establishing the actual data the other way. Assignment and examination should be due to tactical considerations. The timing of the examination is associated with features of the crime under investigation, the investigative situation, the presence or absence of materials necessary for the purpose of examination.

In criminal trials the categories arise of the need for such types of studies: forensic technical examination of documents, forensic poker coach documents examination and forensic-economic expertise (forensic accounting, forensic financial and credit expertise and judicial financial and economic expertise). Also computer equipment and software can be appointed for the examination.

The examination requires an extra step. First, the investigator should set a goal – what he wants to receive as a result of a certain kind of expertise. So, he prepares questions and necessary materials (procedural documents and the objects of study).

Taking into consideration the circumstances following types of examinations can also be assigned: 1) fingerprint – establishes the prints of fingers the fact of contact interaction of a suspect with different objects (seals, stamps, etc.), cash, documents and other things seized during the inspection, a search or discarded by the suspect during the arrest; 2) forensic psychiatric examination may be appointed to establish the mental state of the dummy head or founder of a fictitious company in different time intervals and solving the question of sanity of that person, and the like.

There are some difficulties in practice in formulating questions to the expert. Often investigators can't ask a question correctly and receive the right for criminal proceedings response. Therefore, we recommend using the recommended list of issues that can be found in the Scientific and methodological recommendations on the preparation and appointment of legal expertise (order of the Ministry of justice of Ukraine dated 08.10.1998, No. 53/5), as well as to seek help from a specialist relevant field of expertise during formulating questions to the expert.

Conclusion: Improving the efficiency of use the special knowledge in investigation of criminal offences related to the activities of conversion centers should occur in the following areas: improvement of legislation with the goal of increasing the use of special knowledge in the pre-trial investigation of criminal offences related to the activities of conversion centers, as well as a clear definition of specialist status; participation in the investigation of specialists-economists and experts, in the field of computer technologies by incorporating these positions into staff operational and investigative units or the introduction of a mechanism for the use of their assistance on a reimbursable basis; improvement of the recommendations on the procedure for the involvement of specialists from different fields of knowledge and the development of common approaches to the judicial, economic and other expert studies of various expert institutions irrespective of their departmental subordination.

I. Dombrovskyi, head of the department of State Scientific Research Forensic Centre of MIA of Ukraine

A. Povkh, deputy head of the laboratory – head of the department of State Scientific Research Forensic Centre of MIA of Ukraine

S. Petrychuk, deputy head of the laboratory – head of the department of State Scientific Research Forensic Centre of MIA of Ukraine

S. Romanchuk, forensic expert of State Scientific Research Forensic Centre of MIA of Ukraine

METHOD VALIDATION OF QUANTITATIVE AND QUALITATIVE DETERMINATION OF DNA BY THE QUANTIFILER HUMAN REAGENT KIT FOR THE REAL TIME POLYMERASE CHAIN REACTION

A prerequisite for forensic identification, including molecular genetic analysis is to determine the quantity and quality of isolated DNA. A group of American scientists led by Robert Green has shown effectiveness of a set of reagents for polymerase chain reaction (PCR) in real time Quantifier Human in 2004-2005. Most forensic biology laboratory of the world, including Ukraine, use this set in daily practice.

The aim of this article is to present the results of the validation in-house and develop standard operating procedures for the system 7500 Real Time PCR by the Quantifier Human reagent kit for the real time polymerase chain reaction. The studies were conducted under SWGDAM (Scientific Working Group on DNA Analysis Methods) validation guidelines.

The objects of the study were: 1) standard solution of DNA that is part of the set; 2) DNA A9947; 3) genomic human DNA; 4) standard DNA NIST 2391b.

The following parameters have been checked:

Precision and accuracy of the system

The conducted research showed that the mean Ct results had the normal inverse relationship with sample DNA concentration, going from the range of 23 to 24 for the highest standard (50 ng/μl) to 33 to 35 for the lowest standard (23 pg/μl). Standard deviation values of Ct are 0.15. The deviation in the determination of DNA concentration is 17%. This study provided a useful indication of the stability in measuring it critical parameters, which was quite consistent on all levels from reaction-to-reaction and day-to-day.

Sensitivity of the system

There have been experiments to determine the range of concentrations of human genomic DNA within which positive detection and accurate DNA quantification. It was found that the minimum concentration of authentic human genomic DNA, which is determined by the system, is 0.003 ng/μl. Standard deviation value of Ct was 0.46.

Stability of the system. Effect of inhibitors to real time PCR

For the first time used printer ink as human genomic DNA inhibitors and proved the expediency of their application. There was checked that the action of inhibitors of the system is stable. The lower threshold of printer ink dilution at which it is possible to find the minimum amount of genomic DNA is 1:32.

Quality of degraded DNA by real time PCR

Was determined that the system makes it possible to determine the DNA with different levels of degradation, but makes it impossible to determine the degree of degradation of the DNA, making it difficult to molecular genetic studies.

Reliability of the system

The conducted research showed that analysis of standards DNA NIST 2391b by the system is reliable and reproducible.

And so, those studies demonstrated that Quantifier Human reagent kit for the real time polymerase chain reaction on the instrument 7500 Real Time PCR Systems are suitable and effective for determining the quality and quantity of isolated DNA and DNA in the presence of inhibitors for further molecular genetic studies. The exception is the study of degraded DNA.

Data processing control tools are proposed that make it impossible to obtain false positive and false negative results of research and analytical errors, and provide the maximum degree of their reliability.

I. Zavdovieva, head of the sector of Kharkiv Scientific Research Forensic Centre of MIA of Ukraine

ECONOMIC EXAMINATION AS A MEAN OF FORENSIC SUPPORT OF ANTICORRUPTION IN PUBLIC SECTOR

The main threat to the economic security of the state defined in the «National Security Strategy of Ukraine», approved by Decree of the President of Ukraine dated May 26, 2015 №287/ 2015. They caused by following factors: the spread of corruption, its rooting in all sectors of government; outdated model of public institutions, degradation of public service; the implementation of state agencies in corporate and personal interests, which leads to the violation of the rights, freedoms and legal interests of citizens and business entities, the high level of «shadow» and the criminalization of the national economy, the criminal clan system of distribution of public resources; deformed state regulation and corruption pressure on business.

The paper provides research and expert analysis practices and determines the evidentiary value of economic examination, the findings of which are based in part on the issues of peer initiatives. Today in Ukraine are very popular crimes related to illegal spending of budget funds and further legalization. Often such illegal and unjustified spending of budget funds is the result of activity of criminal groups consisting mainly of certain officials. The investigations are quite difficult in such criminal proceedings.

Economic examination can detect shortcomings in the accounting of budgetary organizations that contributed to the formation of material damage or conceal shortage; to establish conditions that contributed to the commission of fraud; identify the officials responsible for making specific decisions that had an impact on illegal transactions reflected in the accounting data, and so on. Therefore, we can recognize expertise in economics and accounting as one of the most important aspects of anti-corruption activities in modern conditions. Economic expertise can also set patterns of the legalization of funds reflected in the accounting documentation, conditions conducive to the emergence of shortcomings and possible abuse, and develop proposals aimed at combating corruption.

During analyzing certain actions aimed at illegal privatization of state and municipal property, economic expertise can set the duration of use of this property, which preceded the privatization; funding source of funds and allocated entity which commit this action; and further cash funds received state or municipal agency for privatization of state and municipal property. Separately should provide expert operations research from state investment. We know that investments are long-term property in business activity, which results in a profit. One of the tasks of a forensic examination of the economic state investment activities is to promote the best use of property and intellectual property in the creation and modernization of fixed assets, the implementation of target complex programs of economic and social development through capital investment.

Summing up, it should be noted that economic expertise in providing forensic anticorruption in the public sector is crucial, as it allows set basic crime facts - the amount of economic damage to prove money laundering. To consolidate evidentiary value conclusions expertise in terms of information relevant to the criminal proceedings, but about which initiated an examination doesn’t ask questions to supplement the regulations following provision: "can forensics expert establish the circumstances relevant to the criminal case , but he had not been put to question, he is entitled to specify them in a finding independently or ask questions about circumstances and submit in writing the content and conclusions of research yourself the questions "

N. Klymenko., doctor of science professor of the criminal law, criminal procedure and forensic department of European University

LEGAL STATUS OF EXPERTS IN SOME COUNTRIES OF CENTRAL AND EASTERN EUROPE

In some countries in the world, there are some institutions that established to assist the courts and state authorities. For example, in Portugal, the General Prosecutor's Office created the Institute for Documentation and Comparative Law (Instituto de Documentacao e Direito Comparaco – IDDC), which assists not only the prosecutor's office but also the investigative and judicial authorities in matters related to the development of international cooperation.

The Lausanne Institute for Comparative Law operates in Switzerland, and any judge appeals to it, including on the application of international law.

In Belgium, the status of experts is regulated by Art. 962-991 of the Judicial Code (Code judiciale). Courts usually make decisions based on the findings of the examination. The principle of free assessment of evidence exists (no evidence has a predetermined power). The jurisdiction of an expert in arbitration is also regulated in the Judicial Code, they are defined in Art. 18, 25 of the Rules of the Belgian Center for Arbitration and Mediation.

In Bulgaria, the status of an expert is regulated in Chap. 14 of the Civil Procedural Code. An expert involves civil process or court parties. If there is any contradiction with the examination conclusion, the court may designate one or more experts with the execution of the relevant annexes to the conclusion. Bulgaria, in its national practice, adheres to the international principles of competition between the parties.

The activities of experts in the Czech Republic were regulated by the Law "On Experts and Translators" (1967). Experts are appointed according to the lists of regional courts of the regions in whose territory an expert lives. The central list (consolidated list of databases of all regional courts) is maintained by the Ministry of Justice. The term of the examination is about 6 weeks and depends on the task load of the expert. The salary of the expert depends on the contract.

In Germany, registries of experts, built on professional and sectorial principles (as well as in Austria, the Netherlands, Poland, Czech Republic, France, and other countries) are created and operate. They are created mainly by the justice bodies. However, the court can involve not registered expert in research, in certain circumstances.

The supervision of experts is carried out by professional associations (institutions), and they issue a certificate to experts.

Some industries (for example, DNA expertise) involve experts from government agencies.

In civil legal proceedings in Germany, the legal status of an expert is regulated by section 1, chapter. 8 of the Civil Procedural Code (it refers only to experts involved by the court). Whether or not to take note of the expert's conclusion depends on the court.

In the German Arbitration, the status of an expert is regulated in Art. 1049 books 10 of the Civil Procedural Code.

The status of an expert in civil legal proceedings in Estonia is regulated by Chap. 34 of the Code of Civil Procedure. The court may also contact an expert on matters of private international law, in particular to clarify the content of the law of another state, as well as to establish information on the interpretation and application of foreign law.

If necessary (and possibilities), the court may use the conclusion of the examination, drawn up in another proceeding, if this simplifies the proceedings.

The status of an expert in civil and criminal proceedings in Poland was regulated by the Civil (1964) and Criminal (1997) Procedural codes. The experts are appointed by the chairman of the regional court for 5 years, with one court expert being able to appoint several regional courts for the task, if he has the appropriate specialization. The head of the regional court may

dismiss an expert from the position at his own discretion or in case when he isn't satisfy the requirements necessary for the performance of his official duties. The expert has no right to give legal conclusion, but the violation of this prohibition does not call into question his conclusion.

The status of an expert in Switzerland at the federal level is governed by the Civil Procedure Code, adopted in early 2011, which has replaced the existing statutory status of an expert in the Continental Civil Codes.

The status of an expert in civil proceedings in Sweden was regulated by the Judicial Code (2011), in particular, section 3, chapter 40. Before engaging an expert, the court asks the parties of the process. The court may additionally involve an expert of its own choice.

The expert's role in the arbitration process is regulated by the Law "On Arbitration" (1999). The arbitral tribunal may involve the expert in the process, in case when all parties agree. The parties can engage an expert on their own. Any communication during the process between the party and the expert is the subject of publicity.

In accordance with the Civil Procedural Code of Italy the Institute of Technical Consultants (Technical Advisers) functions instead of expert service. As a rule courts use this institution only on the proposal of the parties to the process. Specialists prepare so-called preliminary expert opinion, which is considered one of the alternative means of resolving civil disputes.

Experts are involved in pre-trial investigation and litigation, during which they give testimony on their findings.

Cross-examination of experts is conducted in criminal proceedings according to the principles of a competitive process.

The status of experts in the arbitration process is not regulated.

In the civil process of Latvia, the status of an expert was regulated by the Law "On the Civil Procedure" (2011).

Together with experts working in state institutions, other experts with sufficient knowledge and experience can be involved in the process. These experts have the same rights as experts of the state institution.

The status of an expert in civil proceedings in Russia is regulated by the Civil Procedural Code.

The court may appoint a study to an expert institution or a particular individual.

The status of an expert in criminal proceedings is regulated by Criminal Procedure Code Art. 57.

In addition to the status of expert art. 58 of Criminal Procedure Code defines the status of specialist and his rights.

Russian legal norms (the law "On executive production") also provide the possibility of expert to participate in the executive process (either on its own initiative or on the proposal of the parties to the process).

The status of an expert in arbitration is regulated by the Russian law "On International Commercial Arbitration" (1993). An arbitrator or panel of arbitrators can appoint one or more experts unless the parties have other agreement.

Kh. Kotsiulym, chief forensic expert of Ivano-Frankivsk Scientific Research Forensic Centre

ONTOLOGICAL AND EPISTEMOLOGICAL ROOTS OF ERRORS IN FINGERPRINT EXAMINATION

The essence of cognitive activity of the fingerprint expert is mentally operating with a defined set of facts establishing new facts in order to know of objective truth of the case;

dominance heuristic methods at algorithmic; foreseeing events and formulating expert versions by logical identifications that explain the origin and mechanism, conditions of fingerprint creation, the ideas and methods of their verification, assessment and formulation of the research findings.

Probative value of expert opinion depends on the accuracy and truthfulness, absence of internal contradictions, accuracy and integrity of all actions, assessments and conclusions in the expert document by the results of the study. The expert opinion must be perfect, requiring prompt recognition and prevention expert errors, and ultimately eradicate the reasons that generate them.

Because of the potential errors of inherency court expert, you should consider the following features its cognitive process that form the challenges and act as factors contributing to the occurrence of errors, which are called the roots of errors.

First of all we turn our attention to the epistemological roots of expert bugs out direct research process caused by wrong actions of others. Preparation and appointment of judicial examination is the responsibility of other departments, but their incorrect actions may lead to a false conclusion or off of the number of sources of evidence if the expert fails to establish that fact provide false information.

In fact, the fingerprint research can be done perfectly, conclusions fully comply with the results, but if the source data for the examination were false or had studied objects relevant to the case were rigged and so on – expert opinion in terms of the truth in the case would be a mistake.

On the process of expert knowledge influence: the nature of the interaction of nature and objects; the level of knowledge about them; expert psychological qualities.

According to the process of forensic expert learning, these three factors influence the occurrence of errors and have the roots of expert errors.

Features of the expert knowledge related to the subject can be attributed to the ontological roots of errors, and the features of the knowledge related to the methodology and procedure knowledge – epistemological.

Ontological roots of errors significantly complicate the process of learning and increase the risk of wrong expert decisions, error conclusions.

Adequate knowledge can be achieved correctly chosen strategy implementation. In practice, reliably reproduce within the expert task either side of events under investigation as a factor of objective reality possible if all three basic methods of solving problems of fingerprint traces expert research (diagnostic, identification, situational) the clarify of all the trace links.

I Kurylin, PhD in law, associate professor of forensic department of National Academy of Internal Affairs

A. Antoshchuk, PhD in law, senior lecturer of forensic department of National Academy of Internal Affairs

FORENSIC SUPPORT OF INVESTIGATION THE VIOLATION OF COPYRIGHT AND RELATED RIGHTS

The achievements of science today are important, because they can be used in any field of public life. This is a scientific activity and as a result, scientific and technological achievements, form the authority and the intellectual level of the state. The results of the scientific activities that meets the requirements of the legislation, is the subject of intellectual property rights.

According to article 54 of the Constitution of Ukraine, every citizen has the right to the results of his intellectual, creative activity; none may use or distribute them without his consent, with the exceptions established by law.

Together with this right, there is a public threat of misdemeanors. Despite of the fact that the legislation of Ukraine concerning protection of intellectual property is regulated at the proper level, today, increasingly through the media we receive information about violation of these rights. That is why it is very important to ensure an effective system of protection of intellectual property rights, through effective and high quality criminal maintenance of investigation of this category crime.

Intellectual property law usually covers a wide sector of the rights of diverse nature: while some of them are the result of intellectual, creative act and are recognized as its incentive and reward.

As we have law, there are individuals who infringe on these rights. Typically, the structure of the fight against such crimes is following: a) prevention; b) detection of crime; c) the investigation of crimes. In this case, each of these activities has its own characteristics and specificities, which are determined by the originality of regulation, the subjects, the purpose and other circumstances.

From the standpoint of criminology, crime investigation is the most complex and idiosyncratic activity in the structure of the fight against crime. It becomes obvious that the need to improve investigative practices prompted the Ukrainian scientists-criminalists investigate and improve this area of activity as the provision of forensic crime investigation.

We support the point of view of A. Ishchenko, I Krasiuk and V. Matvienko, and we believe that forensic software investigate violations of copyright and related rights represents a set of organizational, technical, and tactical funds from various branches of knowledge necessary for prevention, detection and investigation of such crimes.

Yu. Kuslii, deputy head of department – head of the sector of Vinnytsia Scientific Research Forensic Centre

D. Bachara, head of the sector of Vinnytsia Scientific Research Forensic Centre

MOLECULAR GENETIC STUDY RESEARCHABILITY AFTER PROCESSING THEM WITH CYANOACRYLATE

The high-level expert support of pre-trial investigation is greatly facilitated by the disclosure of criminal offenses. One of the ways to increase the effectiveness of expert support for investigating offenses, creating a reliable objective evidence base for pre-trial investigation departments, is an integrated approach to studying trace information objects (for example, conducting under fingerprint tracing under certain conditions and further their molecular genetic study, the result will be the establishment of a DNA profile).

In modern practice pairs of cyanoacrylate are using during fingerprint research for detection of traces of hands.

The main task of an expert biologist after treating the traces of hands with cyanoacrylate is to eliminate its influence on them in order to maximize the preservation of cellular elements (multi-layered flat keratinous epithelium) that remain in contact with hands with a trace-sensitive surface.

An experiment was conducted to verify the possibility of conducting a molecular genetic study of traces of hands after treatment with cyanoacrylate in the Vinnytsia Research Forensic Centre of the Ministry of Internal Affairs of Ukraine. The following information was provided by the traces of experts' hands left on the surfaces of black packets of polymer bags.

Traces of hands treated with cyanoacrylate were extracted by the following methods:

- threads of sterile gauze wipes, soaked in poorly de-ionized water, made rinses from the traces of hands that were placed in a tube of "eppendorf" type

- using a sterile scalpel with a variable disposable blade, they made scissors of the papillary patterns of traces that were placed in the "eppendorf" tube;

-threads of sterile gauze wipes, moistened with a solution of dimethyl sulfoxide (dimethoxide), were washed from the traces of hands that were placed in a tube of "eppendorf" type.

Isolation of DNA from sequestered traces (objects of research) was carried out in two methods:

- using Chelex 100 ion exchange resin;

- using the AutoMate ExpressTM Instrument automated appliance company Applied Biosystems (USA) using the special prepFilerTM ExpressTM Forensic DNA Extraction Kit reagents kit with the appropriate recommended protocols.

Quantitative and qualitative evaluation of the isolated DNA was carried out in real time using a standard reagent set (specific for human DNA only) for quantitative analysis of Quantifier Human DNA Quantification Kit produced by Applied Biosystems (USA) according to the method of the polymerase chain reaction (hereinafter, PCR). The instructions provided by the manufacturer of reagents on the Appliance 7500 Real Time PCR Systems from Applied Biosystems (USA).

Experimental studies have shown that the optimal method for handling cyanoacrylate treated hands is to rinse with the help of a solution of dimethoxide followed by extraction with a PrepFiler reagent kit.

In determining the optimal concentration of the solution of dimethoxide to obtain the highest quality DNA profile, it was concluded that the optimal concentration of the solution of dimethoxide to obtain a qualitative and complete DNA profile is 10%.

In addition, it was found that the exposure before the release of DNA should be 40 minutes.

Consequently, the solution of dimethoxide is the optimal solvent for cyanoacrylate, which preserves the integrity of the structure of nuclear cellular elements, which makes it possible to obtain a DNA profile suitable for further identification after treating the traces of hands with cyanoacrylate.

H. Lysak, forensic expert of Dnipropetrovsk Scientific Research Forensic Centre of MIA of Ukraine

V. Khobot, forensic expert of Dnipropetrovsk Scientific Research Forensic Centre of MIA of Ukraine

IMMUNOLOGICAL RESEARCH OF FINGERPRINTS ON LIFTED TAPES

Fingerprints as a source of information for the formation of evidential basis represent the subject for a wide range of research types. Fingerprint and immunological researches stand separately. Such separation is based upon characterization of fingerprints by specific features of both external and internal structure. One of these identifying attributes is specified by individual surface relief, which built the particular fingerprint, and another one is caused by the matter’s individual composition and its presence in the matter, which is transferred into the fingerprint-recovering surface.

The process of sample preparation should comply with the requirements of the specific research type. In forensic practice such preparation includes fingerprint detecting, recovering and forwarding for investigation. In case the sample preparation techniques have been altered for a specific type of research, the experiment findings cannot be considered authentic.

Therefore, providing the fingerprint lifting tapes with the prints is inapplicable for conducting some immunological research. However, this assumption needs to be proved

experimentally, by means of running the fingerprint immunological researches on the lifted tapes.

Besides, within the scope of this investigation, and with the purpose to obtain comprehensive results, it is reasonable to perform sampling from the surfaces, where the fingerprints have been lifted from, the fingerprint powders, used to treat the detected fingerprints, and the persons under testing with different blood groups.

Following the above recommendations, the immunological investigation has been conducted for the fingerprints, detected by physical method on the surfaces with varying degrees of porosity, by treating them with fingerprint powders, and those, recovered onto the fingerprint films. It has been demonstrated, that irrespective of the fingerprint-recovering surface porosity degree, a fingerprint powder and tape type, the investigation result has proved negative in terms of sweat availability in the recovered fingerprints.

Practicability of the obtained investigation results is to confirm the requirement to provide for the immunological researches not the fingerprints, recovered into the tape of fingerprint powder, repeating a finger's papillary pattern, and not the wipe of the fingerprint, detected by powder method, but on-the-scene object-media with sweat and grease matter, that forms this sweat and grease print, or, if there is no way to withdraw the object-media as a whole or a part of it, at least to provide the wipe of untreated fingerprint.

K. Makieshyna, senior forensic expert of Luhansk Scientific Research Forensic Centre of MIA of Ukraine

SIGNATURE RESEARCH OF SENIOR AND OLD PEOPLE

There are not unique cases of research the signatures performed on behalf of the senior and old people in expert practice.

As a rule, the study of signatures on behalf of senior and old people is carried out by the general techniques for the study of signatures. However, such studies are associated with some difficulties because of:

-the nature of changes in general and individual signs of signatures of seniors and older people under conditions of normal physiological, aging and in case of the presence of diseases that affect motor functions;

-the special aspects of the signature application with repetition

The method of forensic research of such signatures is based on the results of the evaluation of theoretical and experimental data on the regularity of signature changes associated with the physiological and pathological processes occurring in the human body due to their aging. The technique contains a detailed description of the diagnostic features and the mechanism of their manifestations, the possibilities of their differentiation from the manifestation the imitation and repetition features of the signatures of the senior and older persons.

Determination of a signature's (with imitation) executor is one of the complex task in the research of signatures performed on behalf of the senior and older people. The reason is that the person who performs such a signature tries not only to reproduce signatures of another person, but namely the senior or older person. Such an imitation of the signature leads to significant distortion and changes in general and individual signs of the performer's handwriting.

In general, signing depends on the following factors:

-the kind of imitation: "on the eye", "in memory", "after the previous training";

-the degree of similarity of the handwriting of the person who follows, and the imprint handwriting;

-quantity of handwritten signature material, performed with imitation.

The complexity of the study of such signatures is due to the fact that the volume of handwriting material is narrowed to the number of signs, executed the unchanged handwriting of the artist. In addition, attention should be paid to the signs that are inherent to the elderly and the aged in the conditions of natural physiological aging and aging, accompanied by a pathology of motor functions that attempts to reproduce the performer of a non-authentic signature, among which:

-abnormalities of the movement coordination of the 1-st group in the form of breaking of strokes, sometimes in the form of winding and trembling;

-reduction of coordination of movements of the 2-nd group;

-tilt: unstable or missing;

-instability of movements during the execution of initial elements of strokes;

-the presence of unnecessary repetitive strokes due to a complicated motor reflex at the beginning of the letter, as well as corrections, impersonation;

-the presence of reflex strokes in the final parts of the letters in case of a significant disruption of the coordination of movements as a result of the difficult transfer of the writing device to the place of the beginning of the next letter;

-connection or inconsistency absence of the degree of connection of the rate of execution of the signature;

-repetition of the same letters or their pass;

-strong undifferentiated pressure;

-weak undifferentiated pressure;

-instability of the basis form and direction of the signature line

The most significant changes are as follows:

-Structure of the signature according to the degree of complexity of movements. When performing letters, letter less strokes and strokes, it is simplified by the loss of parts and elements of strokes;

-Shape of movements. The main features are manifested in the curvature of straight and arc movements in the angular and fractured, especially in the execution of the main, oval, connecting elements of the header and lowercase letters;

-The length of the movements in the execution of the line and over the substrings of header and lowercase letters, as well as strokes and additional elements - there is an increase or decrease;

-Placement of start points and relative placement of signature elements. The localization of these has a significant identifying value.

These signs vary depending on the degree of handwriting of the signature performer.

Detection of classical signs and attributes that are specific in nature allows establishment to a certain extent the fact of the execution of signatures on behalf of the elderly and the elderly.

Ye. Manko, senior researcher of Sumy Scientific Research Forensic Centre

HISTORY, TERMS AND THEORETICAL BASES OF FACIAL IDENTEFICATION

The article deals with the history of development of the persons' facial identification. There are several stages of such identification: making the drawn portraits, subjective portrait, and identification of person by the features of appearance, criminalistics equation of person by appearance as a division of criminalistics technique, modern theoretical principles of facial identification.

Also in the article the author analyze the works of scientists which engaged in development of theoretical questions of facial identification of person. It is marked that in all

those works the general issues of equation of person were examined on the signs of appearance, which touched the different forms of authentication during investigation of crimes, foremost such primitive and most popular, as operative authentication. The expert form of authentication was illuminated far fewer. An author marks that the analyzed works of scientists put foundation to theoretical principles of authentication of person on the signs of appearance, but almost most works from this range of problems were given out a long ago enough, and them considerable part - foreign, what underlines the range of problems of select theme.

An author examines scientific bases of judicial-portrait examination, which is criminalistics, her scientific conceptions, theory of criminalistics authentication, theory and practice of anthropology, anatomy, medicine. In addition, in the article marked the article of judicial-portrait examination, her task and methodology.

In the article in detail properties are described appearances of man, to that belong individuality, relative firmness. The stages of methodology of criminalistics examination are examined: previous (acquainting and preparatory stages), detailed (separate and comparative research), estimate-synthesizing (with the analysis of all results got during research and farther with their synthesis and argumentation of conclusions) and designer, as the final stage with registration of stowage of expert conclusion.

Definitions over of concepts "sign" and "property" are in-process brought, their comparison is conducted. An author comes to the conclusion, that in such research as authentication of person on the signs of appearance, to use a concept "sign", but not "property", in fact an expert at research works exceptionally with external descriptions of man.

As a conclusion, an author marks that authentication of person on the signs of appearance has old roots. And for today this type of research has scientifically-reasonable theoretical principles, certain circle of tasks, objects, classification. Among problem questions almost all works from the problems of authentication of a person on the signs of appearance were given out a long ago enough, and also, that majority is from these works published abroad. This underlines actuality of this research and necessity of new modern theoretical developments.

N. Morhun, PhD, associate professor of preliminary investigation department on National Academy of internal affairs

SPECIAL NATURE OF SAMPLE PREPARATION AS AN IMPORTANT BACKGROUND IN FORENSIC EXAMINATION

The question of preparation and direct obtaining the samples for examination on the preparatory phase arises up during realization of such judicial actions: review, search, inquisitional experiment, dead body examination after exhumation, imposition of arrest on correspondence, its review and coulisse, inspection publicly of inaccessible places, accommodation or other possession of person, secret receipt of standards necessary for comparative research, etc. The quantity and quality of examination materials, tactics of its research depend on the place where they were found and methods of their receiving, type of examinations, questions for examination, etc. The general tactic is applied during the receiving of any type of samples for the possibility:

- make reasonable decision about the obtaining the samples for examination;
- answer the question about which samples and their quantity must be got;
- establish the place and time of obtaining samples for the examination;
- determine the circle of participants of the obtaining samples for examination and their role in realization of this judicial action;
- examine the person for the samples taking

- involve other participants if it's necessary for providing the obtaining samples for examination;

-processing the participants of the judicial operating on the place of its realization;

- determine the necessity and preparation for the use of scientific and technical facilities, solving of other organizational problems;

- prepare the workplace, determination of the mode, terms and methods of receipt of standards for examination;

- prepare necessary judicial documents for the obtaining samples for examination;

- reflect the measures pre-arranged on the preparatory stage in the plan of realization of this judicial action.

Electing each of tactical receptions depends on the concrete situation of pre-trial investigation.

Yu. Nizovtsev, consultant examiner of the Centre of Forensic and Special Examinations of Ukrainian Scientific Research Institute of Special Equipment and Forensic Examinations of the Security Service of Ukraine

LEGAL REGULATIONS OF COUNTERACTING UNAUTHORIZED INTERFERENCE IN THE ACTIVITY OF INFORMATION AND TELECOMMUNICATION SYSTEM

In Ukraine, the legal basis for the functioning of information and telecommunication systems, technical protection processed their information and criminal liability for unauthorized interference in their work are the Constitution of Ukraine, laws of Ukraine, acts of the President of Ukraine and the Cabinet of Ministers of Ukraine, legal acts of the Security Service of Ukraine, state special communications service of Ukraine, other government agencies, international treaties of Ukraine ratified by the Verkhovna Rada of Ukraine. This is regulatory framework governed by the law enforcement agencies of Ukraine while combating unauthorized interference in the work of information and telecommunication systems. For forensic experts the particular relevance in those legal acts has conceptual apparatus used during the expert investigations.

In the article the following acts: the Constitution of Ukraine, law of Ukraine "On information", "On Copyright and Related Rights", "On Telecommunications", "On the National Informatization Program", "On electronic digital signature", "On electronic documents and electronic document", "On protection of information in telecommunication systems", "On national security of Ukraine", the Criminal Code of Ukraine, "Convention on Cybercrime", Strategy for cyber security of Ukraine, the Decision of the national security and defence Council of Ukraine "On the threat cyber security state and emergency measures to neutralize them", "Rules of providing information protection in information, telecommunication and information and telecommunication systems", "Provision of technical protection of information in Ukraine", "The order of forming the list of information and telecommunication systems of critical infrastructure of the state", state standard Ukraine "Information protection. Technical protection of information. Terms and definitions", Regulations of technical protection of information "General provisions for the protection of information in computer systems from unauthorized access", Regulations of technical protection of information "Terminology in the field of information security in computer systems from unauthorized access".

These documents define key terms used in the field of information and telecommunication systems, regulating relations in this area and establish responsibility for the crimes. However, despite the relatively large number of regulations, still remain a number of unresolved issues.

Special attention is drawn to the need for a clear definition of "cyber terrorism" and "cyber diversion", and the introduction of criminal responsibility for such actions.

In summary, the author notes the presence in the Ukrainian legal framework sufficiently wide range of documents in any way regulate the issue of combating unauthorized interference in the work of information and telecommunication systems. Instead, a variety of regulations creates a number of problems. First, it is the difficulty of orientation in a large number of documents. Secondly, the provisions of these documents inconsistent with each other. Finally, the author's opinion, the biggest problem is the inconsistency of certain provisions of Ukrainian legislation to modern realities and the recommendations of the international community. This applies above changes to legislation to criminalize cyber terrorism, which is particularly relevant in terms of the growing number of cyber-attacks directed at critical infrastructure facilities in Ukraine.

I. Osypenko, senior lecturer of Chernihiv National Technological University
M. Hryha-Hrykhno, lead specialist of Chernihiv Forensic Research Expert Centre

IDENTIFICATION OF THE PERSON BY THE APPEARANCE

At the present stage of activity of law-enforcement authorities the crime solution is often connected to the need of identifying of a person or persons who are involved in the crime to some extent. In the process of investigation and detection of crimes the image formation is very important, what is more when the person is unknown and there are no witnesses who could clarify the situation an investigator and an expert need to look for evidences at the crime scene that would point at the criminal.

The aim of the research is to study and generalize the existing methods of personal identification by the attributes of appearance and the possibility of using them in the process of investigation and detection of crimes.

Identification of a person by the features of appearance is based on the statements of identification theory in regard to the relative permanence and the identity importance of the appearance features and also the classification of these features, certain research methods and tactical recommendations developed by criminology.

Evaluating the efficiency of using the face reconstruction method from skull shapes it should be noted that it is largely dependent on a number of circumstances that are outside expert work and is connected with peculiarities of life of missing people as well as with the efficiency of law enforcement authorities that provide registration and search of the missing people. However, it is necessary to state the fact that now the use of reconstruction allows to limit the amount of the identified bodies in most cases by one or two persons, and the results of face reconstruction from skull shapes are used not only at the stage of selection of candidates, but also in the process of personal identification within the analysis.

L. Patyk, PhD in law, associate professor of criminalistics and forensic department of National Academy of internal affairs

STATE OF RESEARCH ON THE INVESTIGATION OF OFFENSES RELATED TO FALSIFICATION OF DOCUMENTS CERTIFYING HIGHER EDUCATION

The article deals with the state of research, starting with an independent Ukraine and present on the study parallel documents in General and documents on higher education in

particular. This is due to the fact that the forgery existed at different times of development of our country, fairly common socially dangerous acts, which can manifest in the form of a crime and to produce a number of other types of crimes.

According to statistics of the General Prosecutor of Ukraine, in 2014, there were 14830 forgeries of documents, seals, stamps and forms, sale and use of counterfeit documents in 2015 – it was 14003 crimes, and in 2016 this number reached 13958, which is somewhat less than in previous years.

The investigation of these crimes has its own specifics, which is primarily manifested in the uniqueness of this group of documents and its treatment. It is established that the practice of effective investigation requires a qualitatively new scientific development for this reason. Therefore, the author determines the relevance of the chosen topic studied the state of scientific research on the problems of the investigation of forgery of documents certifying higher education.

Lists the number of scientists who have dedicated their works to the criminalistics study of documents, in particular: I. Aksenova, N. Asman, Date. G. Kirkinskii, A. Levi, V. , Lisichenko, V. Lipovskaya, V. Markov, D. Mir, A. Moiseev, M. Nikolaichik, S. Pavlenko, V. Snetkov, M. Terziev, T. Ustanceva, I. Friedman, N. Yablokov and others.

On the basis of analysis of scientific works of Ukrainian scientists-criminalists available dissertation research divided into two groups: 1) those that are devoted to technical parablennius documents (Gongalo Sec.Th.); 2) such that dedicated parablennius separate documents (Buzzi M., A. Kobylanski, Patick L., Smal I, S. Talanchuk); 3) such that dedicated parablennius documents and their use in a specific area of human activity (Aspen I. M., Popovich I. I.); 4) those that are devoted to counterfeiting methods (V. A. Shvedova). Let us briefly consider them.

The author came to the conclusion that there are works devoted to various aspects parallel documents. It's like documents in General, when assigned to the technical examination of documents and individual documents (travel tickets, passports and the like). All these works have one goal – to detect signs of any change or inconsistency of the forms of the established sample. It would seem that if the goal is at first glance one, then why it has different studies. But each of the documents that are in circulation of our country is special and different from others according to different criteria, and this is especially true of documents, which has special means of protection – documents of higher education. This group documents the importance of which for the past decade is relevant in the light parallel. As it turned out, research on this direction do not exist, which indicates the relevance and need of scientific study.

V Piaskovskyi, PhD in law, docent, professor of the criminalistics and forensic department of National Academy of Internal Affairs

FORENSIC SUPPORT OF INVESTIGATION CRIMES AGAINST SEXUAL INVIOLABILITY OF UNDERAGE

During the investigation of criminal proceedings of offenses against sexual freedom and integrity of underage timely appointment of judicial expertise is the key for operative and full investigation of criminal offenses and the most important means of proving the guilt of suspects. With the exception of the testimony of the victim and results of identification the fault of the suspect can be proved only by findings of the expertise. Therefore, it is necessary to bear in mind that the delay in examination may lead to irreversible of traces of the criminal offense. For example, the appointment of the victim forensic medical expertise is appropriate only within 3 days after the time of the commission of the crime.

Forensic practice of investigating crimes against sexual inviolability of underage shows that the most often criminal proceedings during their consideration on the proposed criminal

offenses appointed: a forensic expertise of the victim and the suspect, the forensic expertise of physical evidence, forensic psychiatric expertise suspect, forensic psychological expertise of the victim, forensic expertise.

Before the expertise it is necessary to follow the requirements of seizure of physical evidence. Investigators should also pay attention to the procedure of the appointment the different types of expertise.

The choice of experts is an important procedural decision because the proper destination expert depends on the accuracy and completeness of expertise. As a rule, the incompetence of the expert is revealed after an expert study and evaluation of expert opinion, that is, when the investigator has nothing to fix.

Because it is not always possible to conduct re-examination (evidence may already be unsuitable for the study), the incompetence of the expert will lead to the loss of physical evidence.

The study about investigation of crimes against sexual inviolability of underage has identified the following weaknesses allowed the investigators in the appointment of legal expertise in the study of criminal processes. First, the vast majority of cases, the investigators put before the experts, two or three questions, which are «boilerplate». For example, the appointment of forensic biological expertise, include only the question of the presence (absence) on the object traces of blood and their affiliation to the suspect (victim). Sometimes physical evidence sent for expertise in open view, what is indicated in the findings of the examinations. And only in 10% of criminal proceedings the complex psychological and psychiatric expertise of victims are appointed by investigators

The investigation of crimes against sexual freedom and sexual inviolability of minors is not possible without appointment and conduct of various forensic examinations. Proper understanding of the nature of a particular type of forensic examination, a clear understanding of the tasks that you can solve, able to ensure the timeliness of the examination, provide to the expert all the necessary materials and completeness of the expert research that the end result will positively affect the process of investigation.

O. Rusova, forensic expert of Kharkiv Scientific Research Forensic Centre of MIA of Ukraine

PROBLEMS OF COMPARATIVE MATERIALS PREPARATION IN COURSE OF HANDWRITING EXAMINATION OF NOTES WRITTEN IN ROMAN ALPHABET

Nowadays the investigating judges are increasingly faced with such a problem that in the studied documents with evidentiary value in criminal proceedings is not only handwritten notes, made on the Ukrainian, Russian, and manuscripts and recordings, writing systems based on Roman script, therefore, it would be appropriate to consider the removal of samples of handwriting for forensic handwriting.

Thus, the aim of the article is further improving of forensic handwriting examinations, which are handwritten notes, which are based on the Roman alphabet, as well as providing practical recommendations for investigators and judges how to select correctly the comparative samples, to put questions for the expert and evaluate the resulting expert opinion.

The Roman alphabet (the Roman letters or Roman) is the basis of writing in many languages. It includes 26 letters that can be called absolutely differently in different parts of the planet. The writing, which was taken by the Roman alphabet, used in all the languages of the Baltic, Celtic, Germanic and romance groups, as well as some of Iranian, Semitic, Turkic, Finno-Ugric and Slavic groups in the Basque and Albanian language. Also, this style of writing can be

found in the dialects of Indochina, particularly in Vietnam, the Philippines, Africa, Oceania, Australia and North and South America.

Sometimes investigators and judges can face such handwritten notes based on Roman script, which have evidentiary value in criminal proceedings, namely in Bank documents to open payment cards where there is the column "Name and surname in Roman letters", the name of the diagnosis and prescription from your doctor, e-mail address, etc.

In connection with the above stated, there were issues with the direction of such handwritten notes on poker coach research: namely, that it is necessary to specify in the resolution on appointment of forensic handwriting examination; what if the investigator is not fluent in the appropriate language; what to do if the suspect declares that he does not speak the appropriate language; the text to dictate the face with removal of experimental samples?

Regarding the first question in the resolution should specify the extent to which a person owns a Roman language, if it has not, you should add. If the person speaks another language alphabet is based on Roman you need to specify to what extent. But it should also state where the person works, because people specialization, doctors, scientists, sailors long voyage, the customs officers, IT specialists etc., or studying in one degree or another are faced with writing handwriting based on Roman script.

The investigator or the judge before obtaining experimental samples it is necessary to make the text for the dictation, including words, combinations of letters (digits), etc. that is in the document that is being examined. But if the investigator or judge is not fluent in the relevant language, has the right to involve appropriate specialist for confiscation of such specimens.

If the suspect declares that he does not speak the appropriate language in these cases, you can try to get a handwriting sample from any other language, the writing system based on Roman script. It is theoretically possible, if the person alleged to have performed, has the education in a programs which included the study of a foreign language, but in practice it is fraught with difficulty. In this case, it is possible to offer the person a suspect in the implementation of researched handwritten notes to rewrite some text where there were words, combinations of letters (digits), etc., in any other language, the writing system based on Roman script.

V. Stalbunov, chief forensic expert of Kharkiv Scientific Research Forensic Centre of MIA of Ukraine

AUTOMOBILE-PEDESTRIAN ACCIDENT ON AN UNREGULATED PEDESTRIAN CROSSING

As part of the investigation of traffic accidents involving pedestrian accidents in the pedestrian crossing, as a rule, the presumption of driver's guilt and the pedestrian's innocence are used. However, a driver driving a vehicle also has the right to expect certain caution from surrounding traffic participants, in particular pedestrians.

In general, the situation is understood as an accident, during which there is a mechanical contact of a vehicle with pedestrians, cyclists, animals, a stationary obstacle that results in injuries or deaths of people, animals, and damage of transport, its structures, goods or other material damage.

In accordance with the article 18.1 of the Traffic Rules of Ukraine, a driver of a vehicle approaching an unregulated pedestrian crossing must reduce speed and, if necessary, stop to give way for pedestrians who may be subject to an obstacle or danger. This provision obliges the driver to give the pedestrian a way for certain conditions defined by these rules.

In particular, pedestrians as road users, who must act in such a way as not to create a danger to the movement, must comply with all requirements that establish the order of crossing the traffic area and movement on it. On unregulated transitions, they can go to the carriageway

after they estimate the distance to the vehicles, their speed, and make sure the transition is safe. Thus, before the start of the (transition) pedestrian crossing, without prioritizing (the right to priority movement in a certain direction), the pedestrian must evaluate the factors and not start the movement, if it is dangerous, and start moving, provided that it is not will create a danger to the movement and will not force the driver to lower the speed and stop.

Going on the carriageway (in particular, on the pedestrian crossing), pedestrians should not be delayed or stopped if this is not related to the safety of the movement. Pedestrians who did not have time to finish the transition, should stop on the line separating traffic flows of opposite directions, and continue the journey only after making sure the safety of further movement. Thus, the pedestrian who has stopped on the passageway actually loses priority in relation to other participants of the movement.

Consequently, the driver must give way for pedestrians who are moving (already started the transition) on the pedestrian crossing, and not those who are standing on it. And for the driver to "give way" - it means not to start, not to renew or not to continue the movement, not to carry out any manoeuvres, if it can force other participants of the movement (pedestrians) who have in relation to him the advantage to change the direction or speed . In turn, the driver has the right to expect that the pedestrian does not pose a danger to his movement before entering the carriageway (except for the presence of signs of danger from a pedestrian that had arisen before). In addition, the driver has the right to expect that the pedestrian will stop on a line separating traffic flows of opposite directions (if any) as required by the rules for passing the travel section on pedestrian crossings.

In the presence of a lane separating the traffic areas of the opposite directions, and tearing in it, it is necessary to step down the road pedestrian when it passes the traffic way on the side where the vehicle moves.

Establishing the presence (absence) of a driver's technical ability to give way or prevent the arrival of a particular, specified by the investigation or court of the moment of development of the road transport situation, determined by appointment of a forensic examination, the main task of which is to establish a mechanism of accident and its investigation, including determination causal connection between the actions of road traffic participants and road accidents. The results of the judicial automotive expertise (conclusions of forensic engineers) help the investigator to provide a legal assessment of the actions of all participants in the accident.

The mechanism of the road accident involving pedestrians includes three stages: the process of rapprochement, the process of direct contact and the process of moving objects (pedestrian, vehicle) after the contact.

The expert assessment of the actions of road users is carried out only from a technical point of view. At the same time, the main normative act regulating their actions is the Road Traffic Rules of Ukraine.

In expert practice it is traditionally considered that the assessment of pedestrian activity is not within the competence of forensic examination, since it does not require the use of special technical knowledge.

If a vehicle has stopped or slowed down before an unregulated pedestrian crossing, then drivers of other vehicles traveling on adjacent lanes can continue to move only after making sure that there is no pedestrian before the stopped vehicle. The stopping or retardation of a vehicle is already a sign of a pedestrian's stay on the move. If the driver has the technical possibility to prevent a pedestrian crossed through the pedestrian crossing, at the time of danger due to the use of emergency braking, it is recommended that the expert concur with the requirements of the Road Traffic Rules of Ukraine.

O. Taran, doctor of science, senior researcher, lead specialist of the laboratory of pretrial investigation of National Academy of Internal Affairs

Ya. Voitovuch, postgraduate of National Academy of Internal Affairs

TIME OF COMMITTING A CRIME AS AN ELEMENT OF FORENSIC CHARACTERISTICS OF BREAKING SAFETY RULES OF INDUSTRIAL PRODUCTS USE OR OPERATION OF BUILDING AND STRUCTURES

Due to article 275 of the Criminal Code of Ukraine it is understood that the time of the commitment of a crime is its essential objective criterion. It is determined by the moment of rules breaking concerning the safe use of industrial products during its development, design, manufacture or storage, as well as violations of rules relating to the safe operation of buildings and structures during their design or construction. Failure to comply with statutory regulations by the responsible persons can create a threat or lead to harmful consequences to persons who are consumers of industrial products or use (exploit) buildings and structures.

The primary interest in determining the time of committing a crime is the beginning of actions and processes for the design, construction, manufacture or storage of industrial products, as well as the design or construction of buildings and structures.

The legislator, when determining the time when a crime is committed, is the time when the design, construction, manufacture or storage of industrial products is oriented exclusively to activities that are regulated and require implementation and compliance with a number of requirements and rules. Activity, which also applies to the design and development of products, but which does not meet these requirements (marketing research, analysis of production opportunities, etc.), the legislator does not regulate.

Operation of buildings and structures is a complex of measures for their maintenance and maintenance. It implies:

- ensuring the normal functioning of buildings and structures in accordance with their functional purpose;
- ensuring the planned performance of these objects during the whole term of service;
- provision of the established level of safety of buildings and structures;
- ensuring of trouble-free operation of engineering and technical systems of these objects;
- maintenance of normal sanitary-hygienic condition on the territory of the objects.

The forensic significance of the information on the activity studied in this article is due to the reflection in this information of the description of each process in the form of an ordered set of operations, rules for their execution, related objects, performers, events, accompanied by the drawing up of relevant documentation and involves definition of responsible persons (executors) and their powers. Therefore, establishing the time when, for example, it was started, the creation of design documentation will allow not only to determine the requirements for this activity, but also to analyse the process of its implementation, to identify the persons responsible for this work and their powers.

As a result, it should be emphasized again that the timing of the commission of a crime envisaged in Art. 275 of the Criminal Code of Ukraine, is essential for the definition of a guilty person and is closely linked to a clear understanding of the terms, concepts, categories, characteristics, parameters relating to the organization, duration and content of certain processes and actions related to the safe use of industrial products, safe operation of buildings and structures.

A. Khokh, researcher of Scientific and Practical Centre of The State Forensic Examination Committee of The Republic of Belarus

D. Kuzmenkov, head of the laboratory of Scientific and Practical Centre of The State Forensic Examination Committee of The Republic of Belarus

"DENDROEXP" AUTOMATED WORKPLACE AS A TOOL FOR RATIONALIZATION DENDROCHRONOLOGICAL EXPERT STUDIES

Forensic-botanical expertise using dendrochronological analysis is a new type of forensic examinations for the Republic of Belarus. It appoints on facts related to illegal forest use and timber trade.

The general classification of tasks is as follows:

1) classification:

- Determination of the kind of wood;
- Establishment of the species (species) of wood;

2) diagnostic:

- Determine the age of the tree with an accuracy of 1 year;
- Determination of the timing of tree death/felling (calendar year and season of the year);
- Determination of the life condition of the tree, including its viability at the time of cutting;
- Establishment of ecological conditions for the growth of trees and groups of forest formations;

3) identification:

- Establishment of the whole by parts (identities) in the presence of a common line of separation;
- Establishment of the whole by parts (similarities) in the absence of a common line of separation;
- Identification of the site of the area on which the investigated tree grew.

4) situational:

- Determination of the sequence of felling in time;
- Establishment of a sequence of damage caused to the tree (peeling of the bark, burns, damage to wood, applied during the tap, etc.).

Solving these problems is a laborious process due to the large amount of routine work, the length of the search and selection of necessary information.

As part of the research work by the end of 2016, the Cent developed an experimental automated workstation ("DendroExp"), aimed at solving specific problems of individual stages of dendrochronological expert studies.

The specificity of the created workstation is directly related to the functions of long-term storage of large arrays of dendrochronological data, on the basis of which the overwhelming majority of tasks of such expertise are solved.

In general, the structure of the workstation "DendroExp" consists of two parts:

1) the server part that provides the storage of the default information in the Sybase Adaptive Server Anywhere 9.0 database, which is a specialized database management system (DMS) for DSS;

2) the client part, designed to introduce all the necessary user information on his computer.

The DendroExp workstation is based on the open system concept (Open System) and is based on developing, accessible and universally recognized standards, which ensures portability, interoperability and scalability of applications and data. Also the workstation has a convenient, intuitive interface.

For correct work with the workstation "DendroExp" there is no need for equipping an additional workstation equipped with a separate computer. Software add-ins with other software products and information systems can be installed on the operating computer of the expert without prejudice to its operation.

All information and data obtained during the dendrochronological analysis, regardless of the degree of completion of the processing cycle, are stored and can be further modified by the user (expert).

Since the introduction of a digital image of a sample of wood, the expert is given the opportunity to improve the quality of images or individual sections thereof by applying various filters for visual correction (linear contrast, gamma correlation, auto-contrast, fill, border detection, etc.) both in automatic and manual mode . The use of filters makes it possible to facilitate visual perception of significant details and, as a result, to increase the accuracy of measurements. Their use does not entail irreversible changes in the original (reference) digital image. The latter remains unchanged.

All incoming information in the AWP is taken into account and systematized, constantly updated and updated, which makes it possible to conduct not only forensic studies; this information is the basis for creating a nationwide database for further research in the field of dendrochronology, dendroclimatology, ecology, etc.

The "DendroExp" automated workstation created a single system for processing dendrochronological data for solving the main expert tasks of forensic botanical expertise using dendrological analysis and increasing the speed of access to dendrochronological information.

Using the workstation "DendroExp in expert practice allows increasing the productivity of experts by expanding the capabilities of expert research, reducing the time spent both on the research itself and on the registration of their results, and significantly increases the objectivity of expert opinions.

Chechil Y.O., Bulgakov S.A., Talyanchuk I.S. – Special features of the application of principles and methods for determining the value of property in a retrospective (on the casework example of an appraisal and construction examination). Part 1.

The paper presents the features of conducting a judicial appraisal and construction expert examination in criminal proceedings, civil and economic affairs, where the decision of the expert examination sets the question of determining the value by the date that is significantly different from the date of the study.

And pay attention to the legislative process and conflict procedures for determining the value of property, conditions and limits of authority of judicial experts. The authors noted no legal definition of the first period between the date of assessment, date of the report and the date of the examination / assessment, there are no requirements and characteristics and recommendations for determining the value of the property as of the date that differs significantly from the date of the examination is not defined regulatory the process of collecting information on real estate as of past date.

In accordance with the requirements of paragraph 4 of the National Standard No. 1, "Property valuation is conducted in accordance with the principles of utility, demand and offer, replacement, expectation, marginal productivity of the contribution, the most effective use" [3, p. 1]. The author highlights the impact of the difference between the date of determination of cost and the date of the examination, the applicability of the principles defined requires some assembly forensic expert predictions.

To sum up the paper author emphasized lack of defined conditions, which are experts in determining the value as the last date, and with a positive point of view, mark them with a use identification procedures of the property, use restrictions and assumptions identified basic principles and evaluation procedures of valuation in the development and creation while working heuristic (creative) methods address the decision to a judicial examination tasks.

In addition, noted that the study "Features of the application of principles and methods for determining the value of the property in terms of retrospective (on Example judicial

examination estimated-building)" is complex. In the first part of the study, the theoretical principles of determining the value of the property as of past dates are covered, and the study of practical techniques, valuation procedures, methods and methodological approaches that used in determining the value of property as of the past dates will be set out in the following parts of the study.

V. Chisnikov, PhD in law, docent, senior researcher of the State Scientific research institute of MIA of Ukraine

MD PROFESSOR E.BELLIN THE FAMOUS FORENSIC RESEARCHER OF THE END OF XIX CENTURY (DEDICATED TO 165 BIRTHDAY ANNIVERSARY)

On February 28 (15) this year, 165 years have passed since the birth of the famous scientist and criminalist of the late 19th century, the representative of the Kharkov school of forensic doctors, the doctor of medicine, the professor of the department of forensic medicine of the Kharkiv University E. Bellin, who made a significant contribution to the development of the national science of criminology.

Emily Fedorovich (Franzevich) Bellin, a German by birth, was born on February 15, 1852 in Berlin in the family of a technician. In 1860 he moved with his parents to Kharkiv, where his father got a job at one of the local factories. Primary education Emil received in a two-year German school at the Lutheran church, and secondary - in the 3rd Kharkiv gymnasium, which he graduated in 1869 with a gold medal.

Entering the medical faculty of Kharkov University, he did not only study well for five years, but also enthusiastically engaged in scientific work.

Merit of E. Bellin is that he was one of the first in Russia to begin investigating the problems of ballistics.

After the defense in 1888 of his doctoral dissertation, E.F. Bellin was admitted to lecturing as a docent, and then a professor in the department of forensic medicine at Kharkov University.

Emily paid considerable attention to the training of practical forensic doctors and the teaching of forensic medicine in universities. Like the doctor of medicine F.A. Patenko, he believed that the proper training of forensic doctors is possible only in the departments of forensic medicine. Scientists proposed to combine the departments of forensic medicine and forensic medical morgues in order that the latter become the same bases for the departments of forensic medicine, as clinics for the teaching of clinical medicine. With such unification, according to scientists, the departments will become strong scientific centers, and medical expertise will be under the guidance of experienced specialists.

The point of view of E. Bellin on the need to transfer all forensic medical functions in university towns to professors of forensic medicine and to concentrate all forensic research in the relevant cabinets at the departments is worthy of attention.

Peru's scientist owns 84 printed works.

Over the years, E. Bellin studied the issues of forensic gynecology. The result of his many years of research in this field was the publication of a large atlas "Forensic medicine of corruption", published in 1898 in St. Petersburg by the Medical Department of the Ministry of Internal Affairs of Russia. At that time it was the first domestic work in the section of forensic examination of sexual crimes. He is still one of the best guides on this subject, and most of the signs of the corruption of minors established by scientists have not lost their theoretical and practical significance today.

During the service he was awarded the Order of Stanislaus and Anna 3rd and 2nd degree, a sign of the Red Cross and a silver medal in commemoration of the reign of Emperor Alexander III.

Coming out on September 8, 1899, retired, Emiliy Fedorovich moved to his permanent residence in Sumy, where his elderly parents lived. The scientist died on April 29 (May 12), 1902, at the age of 51 and was buried at the local Lutheran cemetery

The family tradition of doctors was continued by the son of the scientist Victor.

A Shved, Phd in law, docent, chairman of State Forensic Examination Committee of the Republic of Belarus

THE ISSUES OF FORENSIC EXPERT TECHNOLOGIES IN FORENSIC EXAMINATION THEORY AND PRACTICAL ACTIVITY

In the modern global world, most areas of human activities are based on the implementation of technologies that can guarantee the required results. Often in the context of forensic examination, universal technologies borrowed from other spheres of activity are considered.

Due to the mass nature of the production of forensic examinations, it is topical to ensure high quality and uniformity in the application of methods and techniques of expert research. In turn, this requires a practical solution to issues of regulatory, including methodical, regulation of forensic expert activity.

Modern justice makes ever greater demands on the validity of the expert's conclusions. The considerable amount of applied methods and methods of expert research makes it very difficult to assess the expert's conclusion by the investigator or the court.

The development of the regulatory regulation of the production of forensic expertise has over time become the object of mutual interest of forensic experts and participants in the proceedings, which seek to control the expert's compliance with the technology of expert research.

In our opinion, the methodology of expert research should be considered as the main form of normative knowledge about forensic technologies.

Modern technologies of forensic research often include technologies that are "borrowed" from other spheres in terms of individual techniques, methods of expert research. In this case, a connection is found between forensic examinations (at the level of the class, gender, species, subspecies or specific expertise) with branches of "big science" or some type of activity.

It should be agreed with E.R. Rossinskaya in the fact that at the level of classes of expertise to draw a clear line between them is inexpedient.

The technique regulating the technology of forensic research should be formalized and contain objective requirements, the observance of which guarantees the reliability of the results. The very fact of the production of expertise in accordance with the methodology or the standard operating procedure to some extent solves the problem of excluding the subjectivity of the expert, but not fully.

The problem of insufficient objectification of many standard methods is obvious. Formally, one can state that among the methods there is a special category - "subjective methods". In them, reliability, among other things, is guaranteed by the expert's competence. However, it is necessary to recognize existing "subjective methods" as imperfect, not deserving of the status of methodology as a full-fledged normative document (system of prescriptions), which determines the technology of forensic expert research.

The task of developing technology for expert research based on various techniques (standard operating procedures or other regulated methods) often becomes the leading expert in

the work. This task brings the creative element into the expert profession. However, here also there is a form of rationing - requirements for the development of forensic technology. We are talking about the rules for constructing a methodology, harmonizing its elements, based on the general laws of forensic research, and not on the general or generic method. Technical rationing in the field of forensic examination should cover not only the requirements for standard technologies, but also the requirements for the development of expert research technologies in atypical conditions.

The most sensitive for the practice of legal proceedings is to secure the necessary balance of creative and model in forensic expert technologies in order to maximize the potential of forensic expertise as a means of obtaining full and reliable evidentiary information.

The accepted system of validation of techniques (standard operating procedures) does not fully meet the tasks of checking the quality of examinations by the participants in the process. This is indicated in particular by the practice of ENFSI, which requires its members to accredit laboratories in accordance with ISO 1720 or ISO 17025 standards. The development of standard operating procedures is considered as a task of individual laboratories, which means that the unity of approaches in forensic expert activity is not provided in full least. There is no doubt that the model of a single national regulator in the field of forensic expert activity can more effectively cope with these issues.

On the way to creating single judicial expert centres, Kazakhstan, Lithuania, Estonia, other countries, as well as the European Union are currently in the process.

It is obvious that in the Republic of Belarus in connection with the formation in 2013 of the State Committee of Forensic Expertise of the Republic of Belarus, appropriate conditions have been created for the implementation of such a model. The issue of improving the quality of forensic examinations, including through the organization of systemic quality control of expert technologies, is consistently implemented within the framework of a unified state policy in the field of forensic expert activity.

An important element of legal proceedings and an integral part of the expert profession are "non-procedural" directions of judicial and expert activity, which is confirmed by an analysis of the practice of forensic institutions of most states, regardless of the features of procedural legislation. In this regard, approaches to quality assurance in the implementation of relevant forensic technologies should be unified.

It should be noted that the Republic of Belarus applies a broad approach to the methodological regulation of forensic expert activity. The State Committee for Forensic Expertise of the Republic of Belarus has an Interdepartmental Scientific and Methodological Council in the field of forensic expert activity, which organizes the approval of methodological materials.

As some conclusions it should be noted that the definition of the concept and the essential properties of forensic technologies allows solving a number of theoretical and applied problems:

- to develop actual directions for ensuring the quality of forensic expert activity, including by improving its scientific, methodological and legal support;
- determine the legal status of the methods of expert research;
- clarify the boundaries of the object of the theory of forensic examination, including in it non-procedural forms of the implementation of forensic technologies.

V. Yusupov, PhD in Law, senior researcher, candidate for a doctor's degree of postgraduate courses of the National Academy of Internal Affaires

THE SCIENTIFIC LEGACY OF PROFESSOR SALTEVSKYI (DEDICATED TO 100TH ANNIVERSARY OF UKRAINIAN FORENSIC SCIENTIST)

The article examines the life and creative activity of the Doctor of Law, Professor, famous Ukrainian forensic scientist Mykhaylo Saltevskyi (11.08.1917 – 23.08.2009).

Mykhaylo Saltevskyi lived in a difficult time. He was born during the revolution in 1917 and the national liberation movement; during the World War II he was fighting for the Soviet Army. Obtained knowledge in the sphere of physics, pedagogy, law and continuous work at the Kharkiv Research Institute of forensic examination allowed Saltevskyi to achieve significant results in Forensics.

Service activity of Saltevskiy was held in practical, educational and research institutions. He worked at the Kharkov scientific research institute of forensic examinations named after Distinguished Professor Bokarius, Kharkiv Law Institute, Kyiv High School of the MIA of the USSR, the National University of Internal Affairs, Kharkiv Economics and Law University, the Research Institute for Studying Crime Problems of the Academy of Sciences of Ukraine.

He was a specialist in the photographic and physical methods of evidence research. In 1956 he defended his thesis on "Forensic examination of locks and seals" in 1969 defended his doctoral thesis on "Tactical basis for establishing group affiliation in forensic examination (methodological and legal problems)".

Saltevskyi developed and implemented a number of new techniques and research tools in expert practice in the sphere of examination of trasological locks, seals, micro traces, forensic ballistics expertise and technical expertise of documents.

Created and implemented intercollegiate program of development and use of technical means in the educational process in the university system of the Ministry of Internal Affairs of USSR.

He founded a school of forensic scientific study of the general theory of criminalistics, forensics and forensic techniques: identification and forensic photography, forensic acoustics.

Under the direction of the Professor Saltevskyi 5 doctoral and 46 master's theses were written and then defended. He was as an opponent in defending of doctoral theses by V. Lysychenko, O. Aubakirova, O. Kyrychenko, V. Basai and opposed at many defences of PhD theses.

He was the inventor of technical and forensic tools and techniques. He developed a number of methods of research evidence, a new method of measuring photo identification and recording devices; constructed forensic metric camera FSM-1. He had three copyright certificates for inventions: forensic metric camera (1972), method of tape identification (1977), methods of forensic identification of human physical parameters of speech signals (1989).

Mykhaylo Saltevskyi was an author (and co-author) of more than 240 publications.

In 1998 Professor Saltevskyi was awarded with the honorary title "Honoured Worker of Science of Ukraine." In 2002 he was awarded with the premium of the Jurisprudence Foundation named after Law Academician Stashys. He also served in the internal affairs for more than 20 years.

Mikhaylo Saltevskyi was a scientist with a wide range of knowledge, curious, versatile, sociable and cheerful person.