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СУДЕБНАЯ ЭКСПЕРТИЗА

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**СОСТАВ РЕДАКЦИОННОГО СОВЕТА
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USING SPECIAL KNOWLEDGE TO OBTAIN EVIDENCE OF COMPUTER INFORMATION FROM THE ORGANIZERS OF ITS DISTRIBUTION ON THE INTERNET

The article do represent theoretical and practical problems of using of a complex of special knowledge to get a computer information as an evidence from internet distributors of such information. The authors do suggest the ways of solving those problems. The article do consider the changings of the legislation in the sphere of Telecom, information technologies and information security, the changings of criminal procedure of Russian Federation.

To make classification of computer information that have forensic meaning the authors suggest to use such legislative determined forms of its representation: network address, domain name, file, digital signature, digital message, digital document, software, database, information system, internet site, web-page, digital currency.

The authors describes the list of digital data that distributors of information and Telecom providers should to collect, store and provide to law enforcement officials based on home country legislation.

The authors did a research of latest legislative rules that allows increasing the quantity of procedure instruments of law enforcement to work with internet based



computer information as an evidence. Based on that research the article describes special knowledge should be used for correct search and seizure of digital messages execution. Basic rule for it is 185 article of criminal procedure code of Russian Federation.

Moreover, the authors do explore the ways to increase effectiveness of execution of criminal procedure named Obtaining information about connections between subscribers and (or) subscriber devices (regulated by article 186.1 of criminal procedure code of Russian Federation). This criminal procedure is consist of obtaining data about date, time, duration of subscribers` or subscriber devices` connections, their ID and other information that allows determine the identity of subscribers likewise a data about identification number and location of base stations (describes by article paragraph 24,1 article 5 of criminal procedure code of Russian Federation).

Key words: electronic evidence, computer evidence information, special knowledge, legal obtaining computer information.

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**INTERROGATION AND GETTING OF AN EXPLANATION
FROM THE EXPERT AT THE PRE-TRIAL STAGES
OF THE CRIMINAL PROCESS IN THE REPUBLIC OF BELARUS:
DEFICIENCIES IN LEGISLATION AND WAYS TO ELIMINATE THEM**

The article reveals deficiencies in the legal regulation of interrogation and getting explanations from the expert at the pre-trial stages of the criminal process of the Republic of Belarus on the basis of an analysis of the criminal procedural legislation and law enforcement practice.

In order to eliminate them, it is proposed to: 1) include the expert's testimony in the list of sources of evidence and supplement the Criminal Procedure Code of the Republic of Belarus with Article 94-1, «Testimony of the expert»; 2) to provide the person conducting the inquiry with the right to interrogate and get an explanation from the expert; 3) to allow the expert to be interrogated and getting explanations from him for clarifying the report on the impossibility of giving an opinion; 4) to provide for the possibility of interrogation and getting explanations from an expert using videoconferencing systems; 5) to complement the Criminal Procedure Code of the Republic of Belarus with the rules that determine the procedure for calling an expert for interrogation (getting an explanation), as well as with the rules that detailing the procedure for carrying out these procedural actions and the rules for drawing up protocols based on their results.

Key words: forensic examination, expert, sources of evidence, expert testimony, expert report, report on impossibility of giving an opinion, interrogation of an expert,



interrogation with the use of videoconferencing systems, getting explanations from an expert.

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Federation, Article 159 of the Criminal Code of the Russian Federation, Article 201 of the Criminal Code of the Russian Federation. This definition of the model was formulated by the author taking into account the peculiarities of credit organizations, the limited access to their internal regulatory documents, the differentiation in the classification of crimes on illegal loan obtaining, as well as the specifics of the implementation of the investigation tasks by means of using special economic knowledge. In the same article the author considers the list and content of organizational tactical tasks solved with their help. These include such tasks as setting the kind of illegally obtained credit, identify the characteristics of the current lending process in the credit institution, establishment of sets of internal documents of the credit organization on the regulation of the procedure for lending to a specific group of borrowers, clarifying the order and characteristics of granting a loan to a specific category of borrowers, identifying a differentiated list of documents, potentially containing traces of the crime, helping the investigator to conduct the seizure of documents, in their examination, preliminary study, the establishment of the information to be clarified during the interrogation of representatives of the credit institution, determining the amount of material damage and others.

Key words: illegal receiving of a loan, special economical knowledge, expert-economist, borrower, credit, loan, forensic evidence, specialist advice, material damage.

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**THE MAIN TRENDS OF DEVELOPMENT
OF FORENSIC HANDWRITING EXAMINATION
IN THE RUSSIAN FEDERATION**

The article focuses on the current state and main trends of development of forensic handwriting examination in the Russian Federation. The authors analyze statistical data as well as major provisions of this sphere of forensics and forensic examination.

The authors determine identification problems related to establishing a particular implementer of a manuscript or the fact of implementing a plenty of manuscripts (their fragments) by the same individual or different individuals. The article represents an opinion concerning the system of diagnostic problems related to determining personal characteristics of the manuscript's implementer and internal or external conditions of its implementation.

Significant attention is paid to the trends of development of forensic handwriting examination in the Russian Federation. The authors determine the main and additional priority directions of its development and improvement of effectiveness and organization of its conduct. Among the main directions of forensic handwriting development there are theoretical, experimental, methodological, and organizational tactical ones. The content of each direction is interpreted. The authors come to the conclusion that a comprehensive solution of forensic handwriting problems will facilitate the increase of effectiveness of human rights activity in the Russian Federation.

Key words: handwriting, forensic handwriting examination, identification problems, diagnostic problems, development trends, directions, effectiveness.

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**USING CORRELATIVE PROCESSING OF DIGITAL IMAGES
IN FORENSIC BALLISTICS**

Measuring the parameters of forensic-ballistic expertise is an indispensable condition for determining the type and specific specimen of hand-held firearms. At the same time, an analysis of the relevant methods and nomenclature of technical means used in the conduct of forensic ballistic studies shows that at present there are a number of practical questions that need substantive resolution.

The development and introduction into practice of expert departments of modern methods of research of forensic objects contribute to an increase in the scientific level of expert opinions and their validity. Non-destructive methods of research, the necessity of priority application of which is confirmed by practical activities of law enforcement bodies and expert institutions, occupy a special place among these methods.

The theoretical principles and principles of the computer implementation of the algorithm for measuring the traces of hand firearms on bullets and cartridges using methods of correlation analysis of digital images are presented in the article.

It is noted that the development of new programs for processing digital images of objects of expert research will allow expanding the list of methods and instruments of measurement and thereby improve the quality, reliability and representativeness of the studies.



The conclusion is justified that the use of the capabilities of modern computer facilities and specialized software is a promising direction for ensuring the production of forensic ballistics.

Key words: criminalistics, judicial ballistics, firearms, traces of weapons, dimensional and angular characteristics, measuring instrument, correlative processing, digital image, measurement information.

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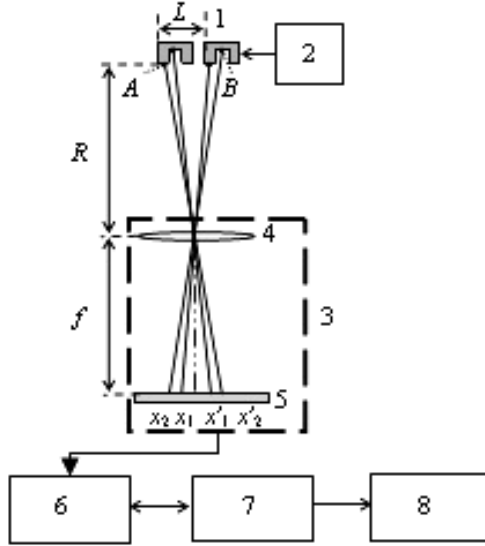
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$$R(\Delta x, \Delta y) = \frac{\sum_{x,y} (I_1(x, y) - \bar{I}_1)(I_2(x + \Delta x, y + \Delta y) - \bar{I}_2)}{\sqrt{\sum_{x,y} (I_1(x, y) - \bar{I}_1)^2 \sum_{x,y} (I_2(x + \Delta x, y + \Delta y) - \bar{I}_2)^2}}$$



$$\bar{I}_n = \frac{\sum_{x,y} I_n(x,y)}{x_{\max} y_{\max}}, \quad (1)$$

$I_1 \cdot$; $I_2 \cdot$
 ; $x_{\max}, y_{\max} \cdot$
 ; $x, y \cdot$ -
 ; $\bar{I}_1, \bar{I}_2 \cdot$
 ; $n = 1, 2$ [6; 7].

(1) $x = \hat{\theta}_1$ R
 :

$$R = \frac{f \cdot L}{\Delta x}, \quad (2)$$

$L \cdot$, $f \cdot$ R_B
 2 $\hat{\theta}_2$

(1) $x = \hat{\theta}_2$ R
 :

$$R = \frac{f \cdot L}{\Delta x}. \quad (3)$$

$$(R = R \hat{\theta} R)$$

R_i : i -
 D_i H_i :

$$H_i = \frac{R_i \cdot y_i}{f}, \quad D_i = \frac{R_i \cdot x_i}{f}, \quad (4)$$



$$\alpha = \arctg \left(\frac{X_2 - X_1}{Y_2 - Y_1} \right), \quad (5)$$

X_1, Y_1
 $, X_2, Y_2$

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5472×3648

22,5×15

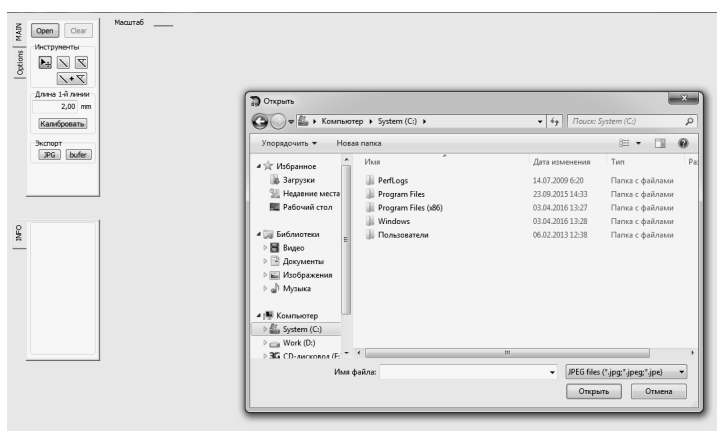
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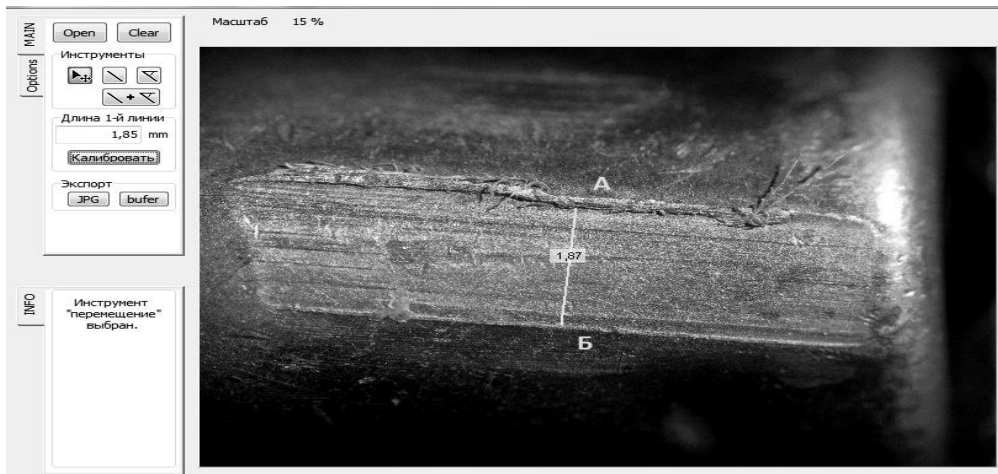
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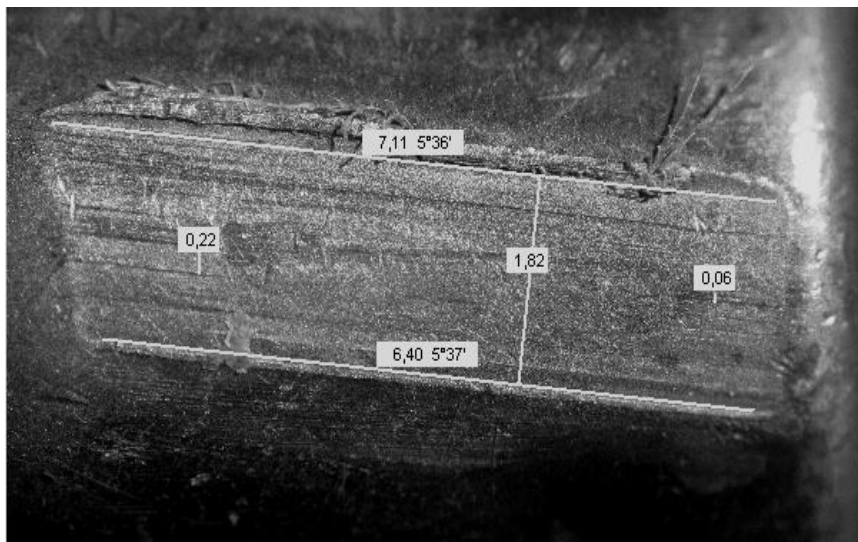
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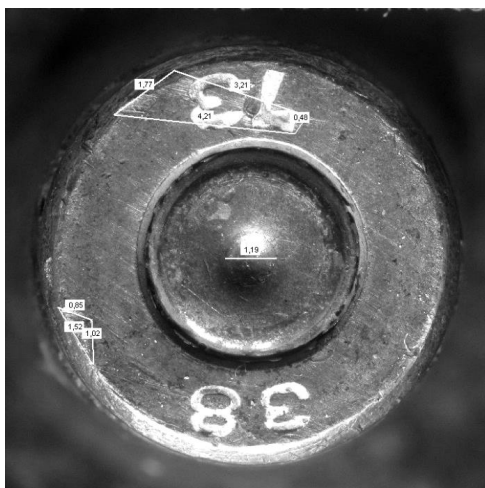


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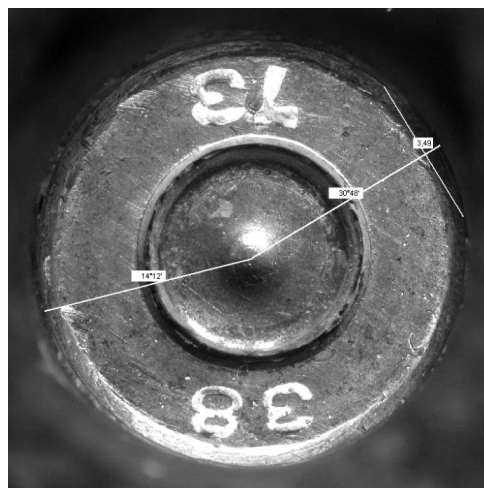
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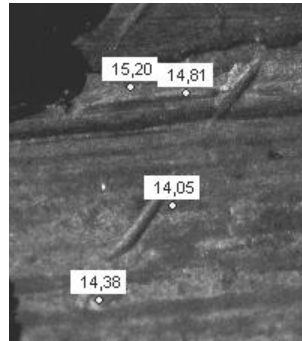
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PRODUCTION OF LEGAL CONSTRUCTION TECHNICAL EXPERTISES WITHIN THE CONDITIONS OF LACK OF BASIC DATA

The article describes essential issues of investigation of economic crimes in the area of construction under the circumstances, which must be explored within joint activity of investigators and building experts; the directions and features of use of special construction and building-technical knowledge are defined.

The authors focus on the possibilities of investigators, available methods and technical means of knowledge, skills of their application, which are insufficient for identifying the facts, significant for criminal case, identification of the hidden interactions, properties, signs of the explored objects and the solution of other problems of investigation of economic crimes in the field of construction. It refers to identifying types, volumes, qualities and costs of actually performed construction and special works on construction, repairing (reconstruction, restorations) construction objects on the basis of which the material damage · the qualifying sign of the considered criminal actions is established.

On the basis of authorsqpractical experience the article contains recommendations about the organization of interaction between investigators and building experts in complicated investigative cases within the lack of basic data necessary for production of construction technical expertises.

Key words: legal construction technical expertise, investigation, special construction technical knowledge, lack of basic data.

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($p < 0,08$), ($p > 0,05$), -

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«b-c» «c-d» [5; 7]), (,),

27 (3³).

($p < 0,05$), (« - - », « - - ») 8- 9

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 «а-б». «b-c». «с-д»
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(p<0,05) ().
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 : Lu 0 4 (10), Lu 0 4
 (10), Lu 0 3 (9), W 0 3 (6).



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 A₁W₅ · 1, A₂W₃ · 4, A₂W₄ · 38, A₂W₅ · 10, A₃W₄ · 19, A₃W₅ · 7, A₄W₅ · 1,
 A₂W₁ · 31, A₃W₁ · 21, A₄W₁ · 5, A₅W₁ · 1, A₃W₂ · 6, A₄W₂ · 0, A₅W₂ · 1,
 A₄W₃ · 0, A₅W₃ · 0, A₅W₄ · 2. (A₄W₂, A₄W₃
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**A FLOURISH IN THE COMPLETION PHASE OF STRUCTURING
A SIGNATURE, ITS SIGNIFICANCE AND FUNCTIONS**

The article is based on the authors' experimental examination comprising 5,000 signatures of different individuals. One of the main purposes of this examination is to determine the list (range) of functions typical for a flourish as one of the main elements of a signature. As a result of this experiment, it is found that the content of each function has its own specific features and plays a certain role in a signature, while a set of functions individualizes it and enhances its protection from forgery. The significance of functions of a flourish is as follows:

- making a signature structure complete and accomplished;
- increasing the level of identification informativeness of a signature;
- determining the maximum level of automatism of movements in a signature handwriting of any signer;
- enhancing protection of a signature from forgery.

Each of the functions of a flourish in signatures is accompanied by a detailed description and a visual illustration. Besides, the authors give their own extensive definition of a flourish based on the results of the conducted examination. The information represented in the article is not sufficiently considered in forensic literature. That is why, in the authors' opinion, it will be useful for theory as well as for practice of forensic handwriting examination.



Key words: experimental examination, functions of a flourish, signature, graphical tracing, constructional constituents of a signature, level of identification informativeness of a flourish, ways of structuring a flourish.

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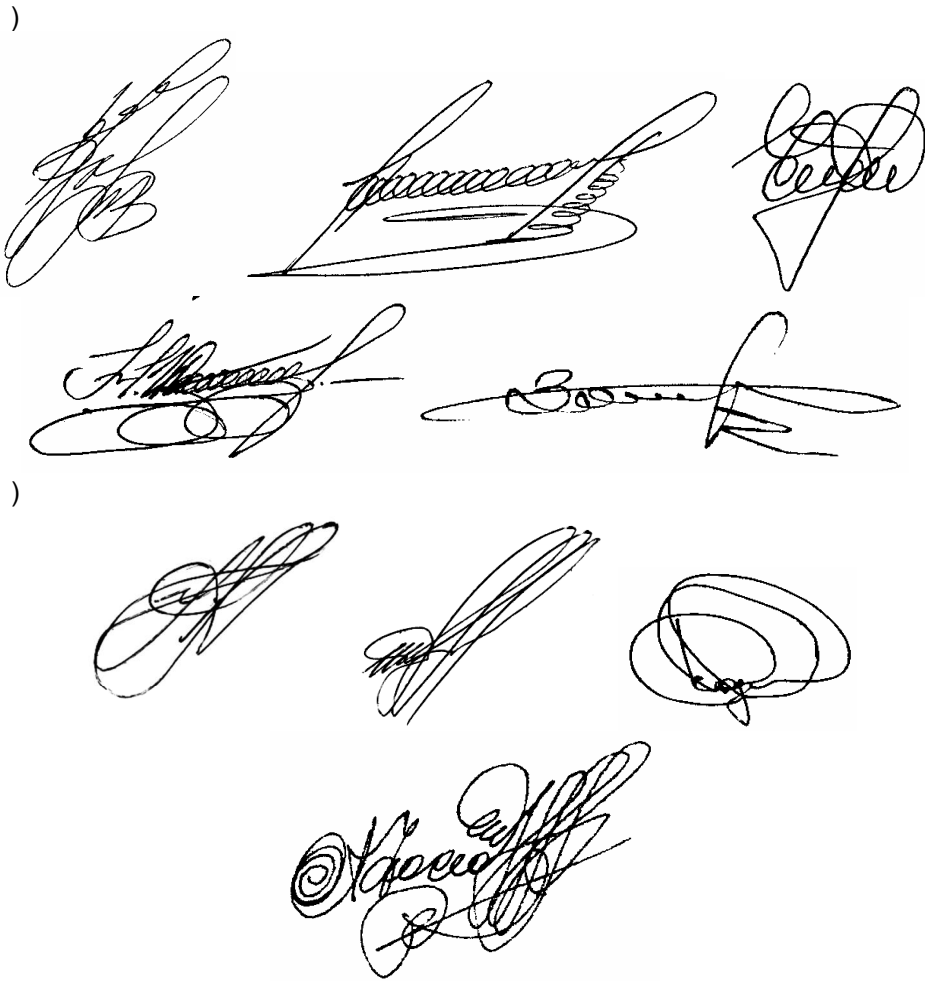
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COMPREHENSIVE APPROACH WHILE EXAMINATION OF SUDORAL AND FATTY SUBSTANCES

One of the key tasks set before forensic services, both domestic and abroad, is the cooperation with research and development centers as well as public agencies aiming to improve earlier applied and develop new comprehensive methods. Therefore, it is required to examine and analyze them.

This article highlights possibilities of comprehensive approach while examination of latent fingerprints left at a place where crime occurred to obtain supplementary evidentiary information required for criminal investigation. Application of NMR spectroscopy, infrared spectrometry and mass-spectrometric studies when combined with visual and optical methods as well as DNA analysis allows performing various diagnostic and identification tasks. In particular, based on analysis of qualitative and quantitative composition of sudoral and fatty substance, it makes possible to detect drugs consumption, medications taking, and human diseases as well as to detect contact with certain substances (explosives, drugs etc.).

Key words: forensic investigation, dactyloscopy, sudoral and fatty prints, metabolic products, spectrometry, comprehensive examination approach.

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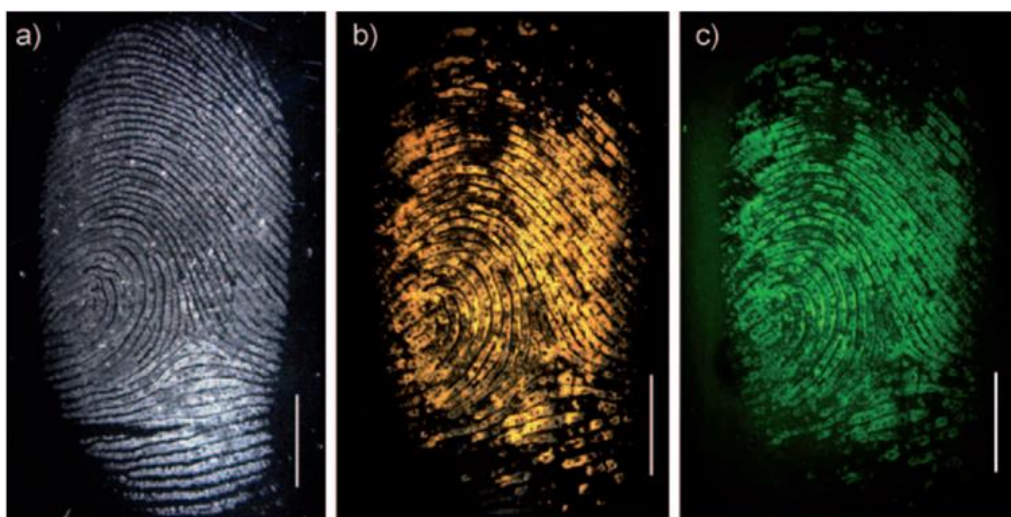
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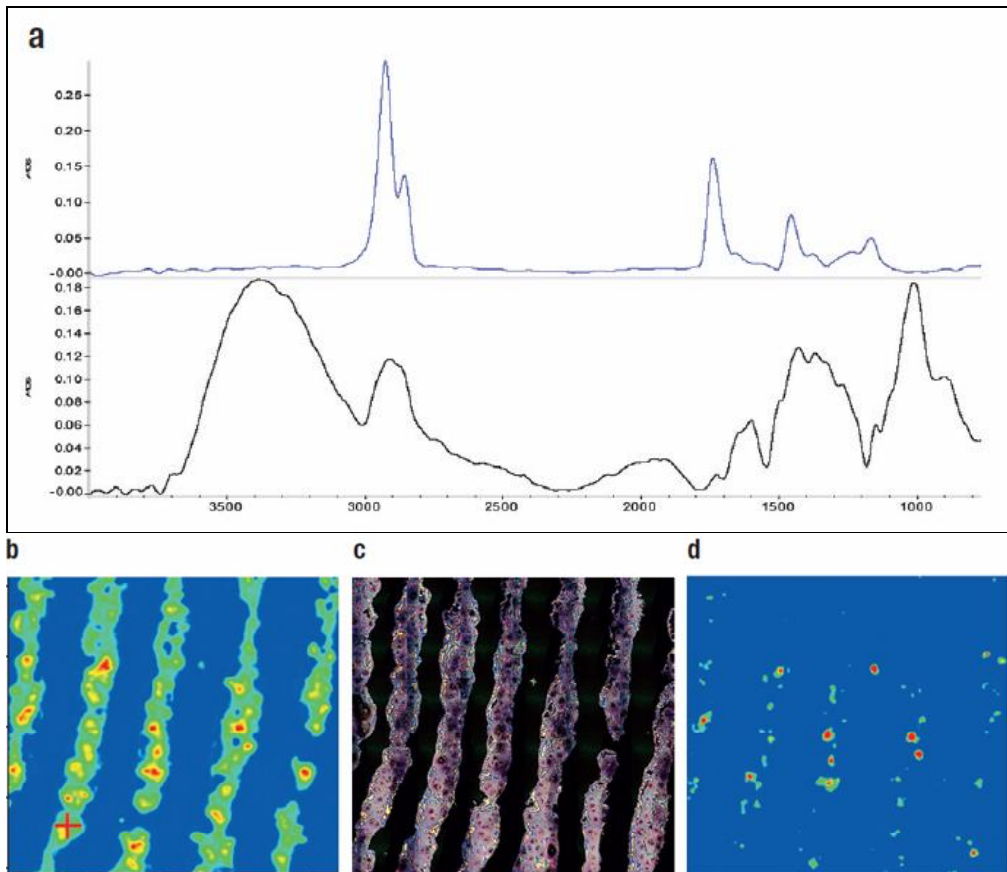
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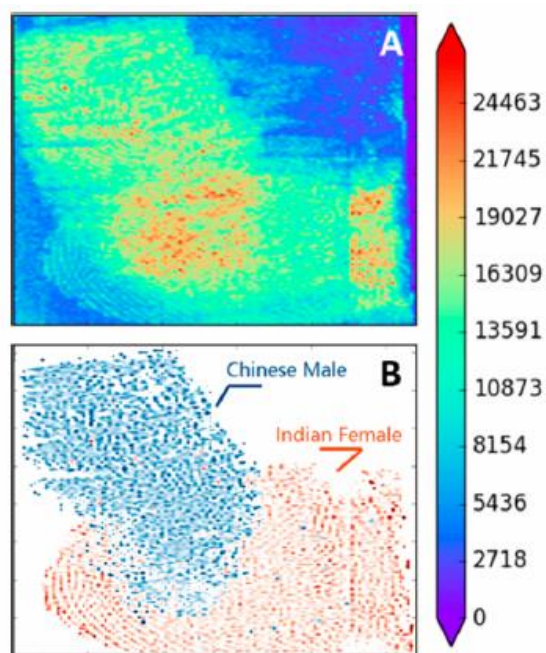
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ON THE ROLE OF THE EXPERT EXPERIMENT IN THE PRODUCTION OF JUDICIAL-PORTRAIT EXAMINATION

The author considers the questions connected with carrying out an expert experiment within judicial and portrait examination according to video images. In this article it is about those cases when there is a need for carrying out an expert experiment which as it is represented, can have essential value when checking validity of a conclusion of the expert-portraitist. Besides, the expert experiment isn't considered by some scientists as an independent stage of a research at all.

The expert experiment, according to the author of article, at implementation of identification of the person on signs of appearance is conducted rather seldom, however, if there is a need to check how these or those factors influence display of signs of appearance, he should be seen off. It is represented that by means of the expert experiment conducted by production of judicial and portrait examinations on video materials it is possible to create new conditions for studying and assessment of the revealed signs of elements of appearance of the person under the influence of certain factors. The author is convinced that the expert experiment in judicial and portrait examination according to video images as an independent investigation phase can not be considered as it is sometimes carried out in common and at stages of a separate and comparative research.

Key words: videogram, video, the signs of human appearance, the stage of the expert examination, is judicial-portrait examination, the expert experiment.



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in some nearby regions of the Russian Federation (the Republic of Altai, Tyva, Buryatia, and the Chita Region) traditional handcrafted locks are also still in use. These locks are distinguished by non-typical design and different numbers of keys to unlock one particular lock which are characterized by various combinations of ledges and deepenings.

A mechanism, a principle of locking, and ways of criminal unlocking and breaking modern locks are widely described in forensic literature. However, there is almost no such data in relation to Mongolian handcrafted locks.

Peculiarities of design and principles of locking Mongolian handcrafted locks are studied. According to results of the analysis of expert practice of their examination, the most common ways of their unlocking and breaking are established. Along with this, possibilities of forensic examination of corresponding traces are determined.

The conducted analysis of design and ways of unlocking Mongolian handcrafted locks allows expanding the possibilities of their diagnostic examination. Reference materials represented by the author can be helpful for officials of forensic subdivisions of territorial agencies of the Ministry of Interior of Russia related to the above mentioned regions to study conditions of crime scene examination as well as to conduct trace evidence examination.

Key words: forensic examination, trace evidence examination, traceology, lock, locking device, examination of locks.

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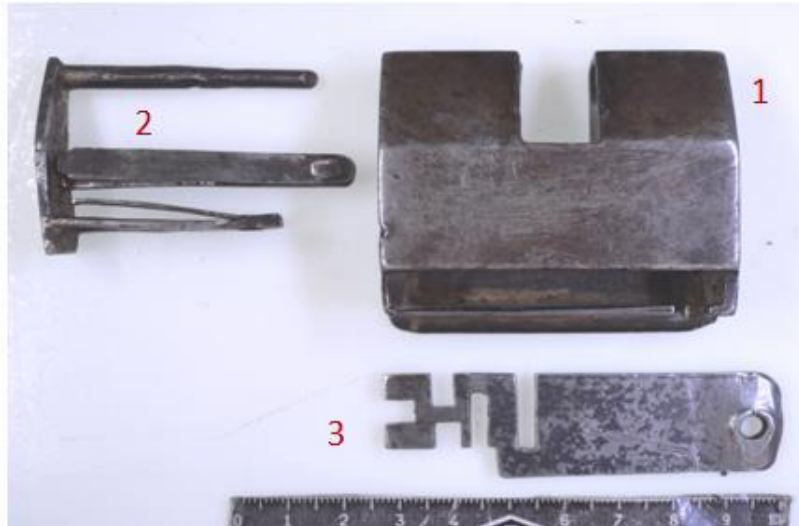
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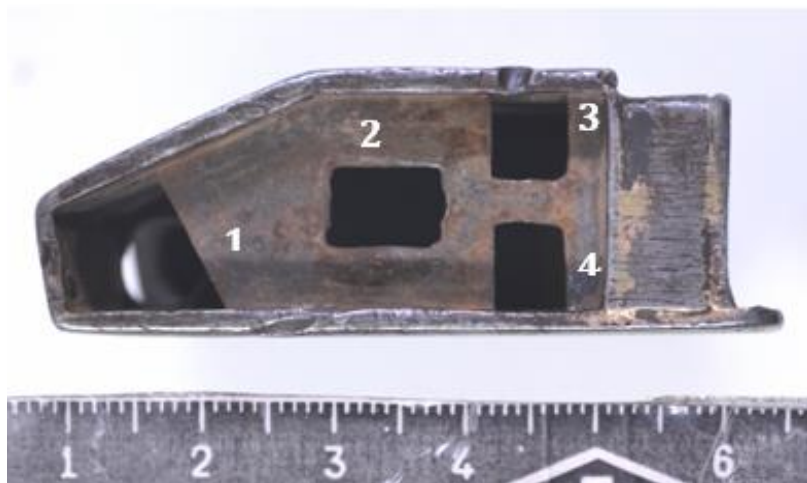


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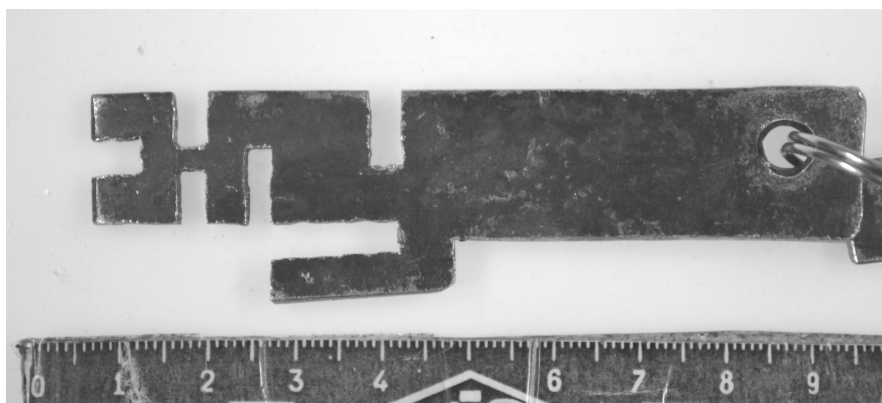
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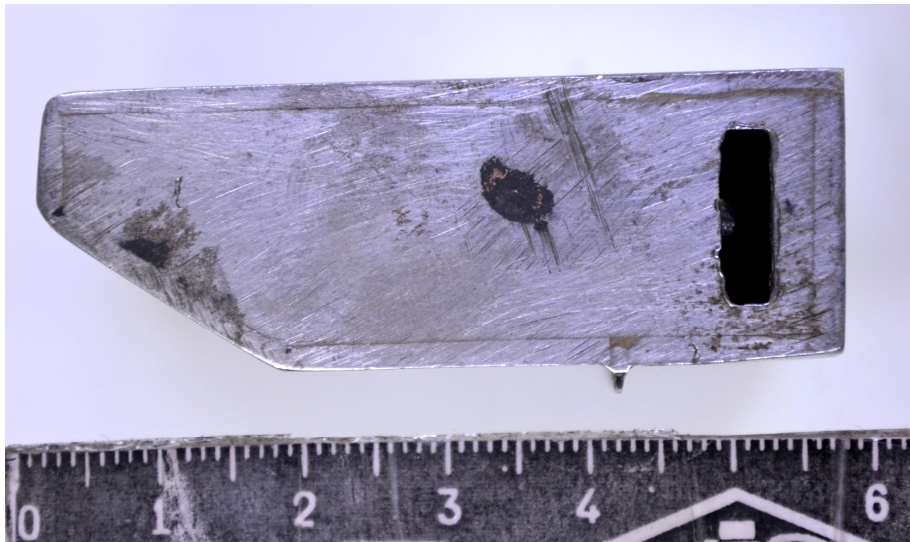
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**RESEARCH TECHNIQUES FOR CROSSING STROKES:
MYTH OR REALITY?**

The article approaches research techniques for crossing strokes that are comprised of some special methods dealing with specific writing materials used for documents details.

It also provides with historical background, covering period of time from the beginning of the twentieth century till the current days, to development of the research techniques for crossing strokes.

It is stated that research techniques for crossing strokes represent a set of approaches and methods applied in examination of documents and let achieve positive results in completing the task.



The Article insists that nowadays examination of crossing strokes must be held following the formula «certain writing material needs certain examination method».

It is also shows an example of special approach to examination of crossing strokes made with stamp ink and pictures obtained results. The research was made by hardware-software television system «Expert-K» in «peek-a-boo» mode. It is unknown whether the approach in question can be applied to all similar crossings or it is just a singular fact.

Key words: intersecting strokes, research methodology overlapping strokes, inks, shooting against the light.

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**PECULIARITIES OF TRACES OF A CLOSE-RANGE GUNSHOT
WHEN FIRING THE 5,45 MM AK-74M, AK-105, AND AKS-74U
ASSAULT RIFLES**

In spite of the fact that in forensic and medicolegal literature the ever-increasing attention is paid to the issues of examining traces arising as a result of additional factors of a gunshot when firing the Kalashnikov assault rifles there are no systemized data providing the possibility to differentiate traces of a close-range gunshot in forensic literature.

On the basis of a series of experimental shootings with the 5,45-mm AK-74M, AK-105, and AKS-74U assault rifles the authors conduct a comparative analysis of trace morphology at different ranges (from 0 to 200 cm) a number of the regularities allowing to differentiate the traces formed when firing of 5,45-mm Kalashnikovs of the specified models on their basis is revealed..

Along with this, applying a diffusion contact method the authors find out peculiarities of homogeneous, point, and small-focal deposits of copper ions.

All the conducted examinations allow experts to accurately differentiate traces of a close-range gunshot from the 5,45 mm AK-74M, AK-105, and AKS-74U assault rifles.

Key words: assault rifles Kalashnikov, traces of a close-range gunshot, friction band, gunpowder grains, small arms, forensic ballistic examination, shot soot.

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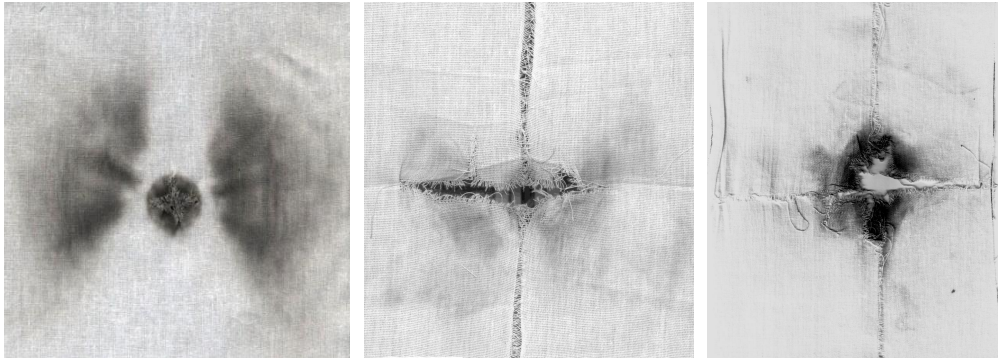
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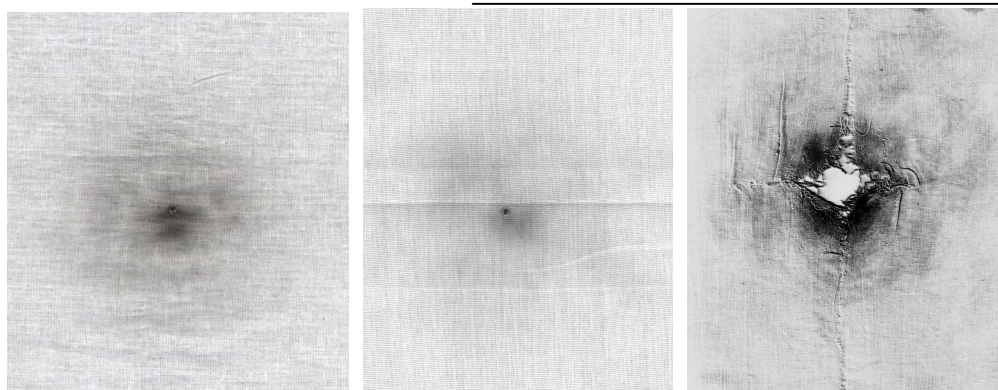
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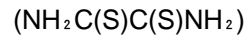


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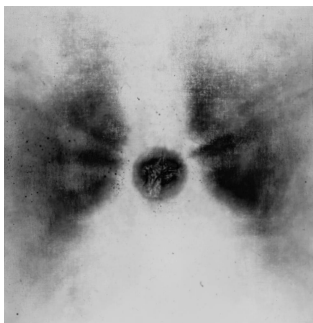
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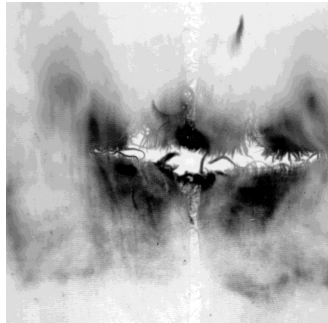
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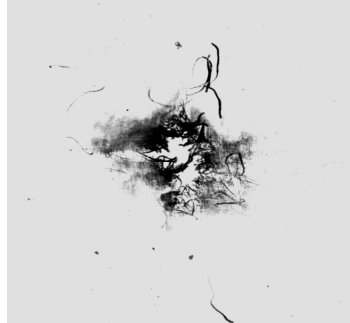
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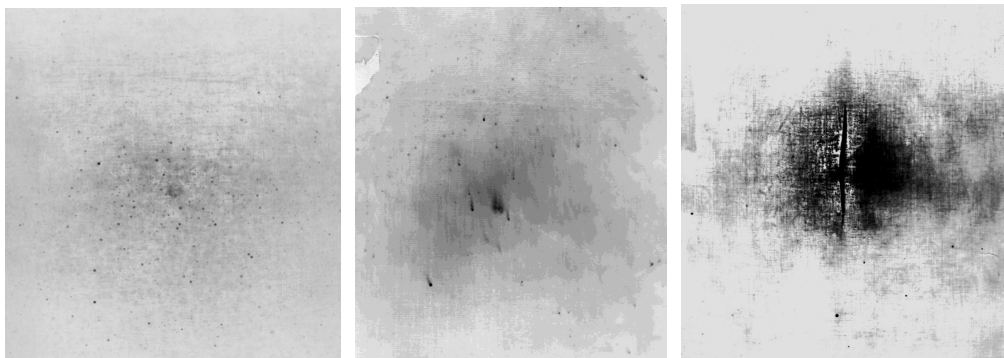
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