



RESEARCH OF HANDWRITTEN TEXTS ON COPIES OF DOCUMENTS

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Annotation. This article analyzes the current and currently most popular problems of the production of forensic handwriting expertise on copies of documents. The most precise definitions are proposed from the author's point of view of the concept of forensic handwriting examination, forensic handwriting, handwriting, the specifics of the objects of this type of examination are analyzed, as well as the issues solved by handwriting experts and the scientific foundations of their research. The ways of solving the existing problems and creating the foundations of forensic handwriting expertise on copies of documents are listed. And also the possibilities of establishing the fact of forgery of handwriting objects made with the help of technical means are being considered. Diagnostic complexes of signs of modern ways of reproducing signatures obtained using a laser printer and an inkjet printer are given.

Keywords: forensic handwriting, forensic handwriting examination, handwriting, signs of a laser inkjet printer, differentiation of non-genuine.

With the increasing penetration of advanced technologies and computer systems into our lives, the government faced the challenge of effectively utilizing these resources to improve the quality and efficiency of all sectors in the country. To this end, numerous state-owned enterprises, government agencies, and commercial organizations gradually began transitioning to electronic document management. This natural process, in turn, has led to the development of new methods of committing crimes in the field of forensic handwriting analysis and technical-forensic document examination.

New objects created using copying machines and various digital equipment have appeared, creating additional tasks in two directions in forensic science. The first is forensic handwriting, and the second is technical and forensic examination of documents.

This article will consider the issues solved by forensic handwriting examination and will slightly reveal the aspects of technical and forensic examination. So what is the main feature of the production of handwriting examination? To begin with, let's turn to the definition of the concept of forensic handwriting examination, forensic handwriting and handwriting in general.

Forensic handwriting examination is not only a common type of forensic examination, but also one of the most complex types of forensic identification [1].

Forensic handwriting is an independent field of specialized scientific knowledge that studies the patterns of development of the formation, functioning and research of handwriting in order to provide evidence and information support for the disclosure, investigation of crimes and ensuring the legal process [2].

Handwriting is an individual, dynamically stable visual and motor image of a graphic writing technique that is implemented using a system of movements in a manuscript [3].

From the above definitions, it can be concluded that forensic handwriting examination is the study of writing materials displayed on a material object.

According to V.F. Orlova, if we turn to the object in the situation under study, its peculiarity will be the absence of direct handwritten fixation of the movements with which the signature or record is made [4]. That is, in this case, the direct carrier of information is not the handwritten text itself, but its image obtained using some technical devices, for example, by obtaining a copy.

Practice shows that it is not always possible to achieve positive results with copies of documents, since from the point of view of handwriting, criminals, unscrupulous performers make great efforts to give the production of a forgery the most similar features to the original documents. One of the most difficult requisites for a long time was a signature. By the properties of the strokes of ballpoint pen pastes, even an ordinary person could see the difference between a handwritten signature and a display (i.e. printed) with the help of various printers (for example, with the help of a laser, inkjet printer). However, in recent years, the Наличие следа давления шарика.

– As a result, experts were increasingly asked questions about the method of execution of signatures or short notes (pictured) on the obtained copying means, which were often printed on a black and white laser printer. The coloring substance of this printer is difficult to distinguish from the strokes of a black gel pen with the help of visual observation, but having a microscope or a more modern device such as a video-spectral comparator for an expert, it will not be difficult to identify the differences. It is known from the training course "Technical and forensic investigation of documents" that the diagnostic signs of this method of forgery at 8-16X magnification are as follows: характерный блеск штрихов из брожений;

- loss of fine details of the image;
- fine-grained structure of strokes, which consist of a surface layering of sintered particles of toner coloring substance;
- the presence of paper dirt around the images of signature strokes in the form of dotted layers of toner "dots";
- Peeling of the toner forming the image of the signature along the fold lines [5].

The final problem in the study of the image as an object of forensic handwriting examination is the resolution of the question of how accurately the image of handwritten text conveys the original handwriting, i.e. the directly executed manuscript. Often copies are subjected to distortions of the original comparative material in connection with what, such an object is considered limitedly suitable for handwriting examination. Logical-mental, as well as experimental way the factors influencing the quality of reproduction of handwriting features in copies have been revealed, these stable features are the result of the relationship between the quality of transfer of features from what copy is the first or previous. For example, the stable features of handwriting can include: "signs reflecting the spatial orientation of movements; transcription of the signature; the degree of elaboration of handwriting; the degree of complexity of movements; the predominant form of movements; the predominant direction of movements; the predominant extent of movements vertically and horizontally such as acceleration, size; slope; the shape and direction of the signature base line" [6].

The most constant particular features include: structure by complexity and design; relative direction of arc movements; form of movements when performing signature elements; length of movements vertically-horizontally; placement of points of intersecting

movements. Reprographic properties of the received object objectively allow us to conclude that it is in the first copies that features indicating unusual execution can be observed, namely: presence of breaks in rectilinear and arc movements; blunt beginnings and endings when performing initial and final parts of letters, as well as unjustified stops in strokes. The quality of the equipment, namely the digital resolution of the printer, depending on the model, may, regardless of the primary or secondary nature of this copy, not provide the required number of features allowing it to be examined. With an increased size of strokes in copies of documents, the so-called structure of strokes in the form of steps is observed, which is typical for copies made on copying and duplicating machines with a digital signal processing method, therefore leading to the elimination of small tortuosity indicating the conditions of unusual execution of the handwriting under study [7].

For example, Kuznetsov V.V. believes that an electrophotographic copy with the image of a handwriting object is a limitedly suitable object for handwriting research. Its suitability is provided by the mechanism of obtaining the display and subsequent reproduction of a large volume of handwriting features, in an undistorted form, i.e. the same as in a manuscript. Such features include identification features belonging to the groups of spatial-orientational and structural-geometric. At the same time, the object's suitability for identification is limited by possible distortions in the transfer of diagnostic and some part of identification features. Thus, T. A. Drozdova and G. V. Logvina refer to the signs subject to distortion: "the presence of interruptions of movements, the absence of weakly pressed strokes in the electrophotographic copy, the presence of thickenings" [8].

Such phenomena are difficult to explain. Whether these features are the result of some "confounding" factor or are the consequence of inaccurate transmission, such features include the subsequent copy in relation to its initial one. Insufficient study of the above-mentioned regularities, lead often to a complete lack of possibility to interpret these features of their formation and the possibility of reliable differentiation. The above-mentioned features indicate that the specificity of this type of objects of forensic handwriting examination is the inclusion of an intermediate link, i.e. the technology of production..

In this regard, gaps arise in the methodology for studying this type of object, since it is less informative than an ordinary handwriting object, hence, naturally, there are fewer opportunities for its study, which should take into account its specificity. When determining the degree of suitability of a given object, the quality of the copy being studied is of significant importance: the higher the quality of the copy, the higher the possibilities of handwriting analysis [9].

Thus, handwriting experts who base their examinations on methods for solving specific problems need to improve their scientific base. There is an urgent need to improve and more accurately develop methodological recommendations for solving the following issues: determining the range of possibilities for diagnostic tasks; determining the range of possibilities for identification tasks; determining the suitability of a copy, taking into account its quality and volume; the ability to examine copies of signatures that are assembled from other parts of genuine signatures.

References:

1. Почерковедение и почерковедческая экспертиза : учебник / под ред. В. В. СеП 65 региона. — Волгоград: ВА МВД России, 2007. С. 3.

2. Понятие и предмет судебного почерковедения : научная статья / под ред. Д.С.Коровкина, В.Н.Чернушенко. Санкт-Петербург. С. 137.
3. Почерковедение и почерковедческая экспертиза: учебник / под ред. В. В. Серегина. — Волгоград: ВА МВД России, 2007. — 340 с.
4. Орлова В. Ф Проблемы производства судебно-почерковедческой экспертизы малообъёмных почерковых объектов по электрофотографическим копиям. С 54.
5. Техничко-криминалистическая экспертиза документов [Текст] : учебник. – Волгоград: ВА МВД России, 2005. С. 67.
6. Пахомов А. В., Сысоева Л. А. Судебно-экспертное исследование современной подписи [Текст] : учеб. пособие. – М.: ЭКЦ МВД России, 2007. С 154.
7. Пахомов А. В., Сысоева Л. А. Судебно-экспертное исследование современной подписи [Текст] : учеб. пособие. – М.: ЭКЦ МВД России, 2007. С 155.
8. Кузнецов В. В. Актуальные проблемы судебной почерковедческой экспертизы по электрофотографическим копиям / В. В. Кузнецов. — Текст : непосредственный // Молодой ученый. — 2019. — № 52 (290). — С. 132-134.
9. Sobirov F.B. Xatshunoslik ekspertizasida kompleks sud ekspertizasini o'tkazish jarayonida mavjud muammo va echimlar.// Zamonaviy dunyoda ilm-fan va texnologiya (ilmiy, masofaviy, onlayn konferensiya) URL: <https://doi.org/10.5281/zenodo.7817038> – Т. 2023. В. 52-57.

