Effectiveness of crime scene examination and detectability of crime perpetrators

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Introduction

Article 2 § 1 point 1 of the Code of Criminal Procedure (hereinafter referred to as the k.p.k.)\(^1\) specifies that the basic purpose of criminal proceedings is that the perpetrator of the crime should be found and brought to criminal liability and that an innocent person would not bear this responsibility. This provision is interpreted as an order to respect material truth and the obligation of the authorities of criminal proceedings to establish the relationship of a given person to perpetration of an act. In addition, it imposes an obligation on these authorities to investigate the matter in a comprehensive way.\(^2\) Supplementary to art. 2 § 1 point 1 of the k.p.k. is certainly art. 297 of the k.p.k., specifying the objectives of the preparatory proceedings. Among them, it is crucial to determine whether a criminal

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\(^1\) Ustawa z dnia 6 czerwca 1997 r. Kodeks postępowania karnego, Dz.U. 1997 Nr 89, poz. 555 z późń. zm.

act has been committed and whether it constitutes a crime, but also to de-
tect and, if necessary, apprehend the perpetrator and gather, secure and,
to the necessary extent, consolidate evidence for the court.

Detection of crime perpetrators

We detect a crime perpetrator when the evidence collected as part of the
preparatory proceedings sufficiently justifies the suspicion that the desig-
nated person has committed the act to which the proceedings relate. At the
same time, it is argued that, depending on the circumstances of the case,
the detection of the perpetrator of the crime may prove to be the most dif-

cult task faced by the persons conducting the preparatory proceedings.3

As accurately indicated in the literature, the detection process is based
mainly on operational and reconnaissance activities. This is because they
are secret, and it is allowed to use deceit and operational tools during these
activities. Thanks to this, they are more effective in detecting crimes and
revealing their perpetrators than the means of proof existing in the crim-

inal procedure.4 However, the sheer effectiveness of detecting perpetra-
tors also depends on many other factors, among which the leading role
is played by:

— establishing a certain sequence of actions during planning the de-
tection process, which is later followed in the course of this process,

— the maximum quality of these activities, the intensity and content
of the information message stimulating the detection process as a whole,
as well as its individual segments or stages,

— a set of objective circumstances regarding the event the perpetrator
of which is to be detected as a result of a given detection process, as well
as the type of the event and sometimes the properties of its perpetrator.5

3 B. Skowron, “Komentarz do art. 297”, [in:] Kodeks postępowania karnego. Komen-
tarz, ed. K. Dudka, WKP 2018, https://sip.lex.pl/#/commentary/587774936/572376?key-
word=Kodeks%20post%C4%99powania%20karnego%20komentarz&toeHit=1&cm=
STOP (access: 16.10.2019).

4 E. Gruza, M. Goc, J. Moszczyński, Kryminalistyka czyli rzecz o metodach śled-

5 T. Hanausek, Zarys kryminalistycznej teorii wykrywania, part II. Proces wy-
krywczy, Warszawa 1987, p. 94.
K. Sławik expresses this issue much more broadly, according to whom among the factors determining the level of detection effectiveness should be indicated:

— type of crime,
— the time elapsed from the time the crime was committed until the law enforcement authorities became aware of it and commenced detection activities,
— the proper performance of the first activities, in particular a comprehensive and thorough examination of the crime scene,
— offender’s modus operandi,
— the accuracy of reconstruction of the crime scene,
— the ability to use available examinations and forensic methods, as well as the correctness of operational-reconnaissance and trial activities,
— the level of preparation of law enforcement agencies for operational and trial work, which should be understood as the proper selection and educational background of operational and investigative officers and their appropriate technical equipment which is used by them,
— the system of obtaining and sources of information and their quality,
— the proper methodology for developing criminalistics versions,
— the appropriate use of existing circumstantial materials,
— the knowledge of methods of criminal activity and knowledge of criminal environments,
— forces and means available to law enforcement agencies,
— the level of cooperation between victims, witnesses of crime and law enforcement agencies,
— the degree of social involvement in fighting crime, including also mass media.\(^6\)

**Crime scene examination**

The objectives specified in art. 2 § 1 point 1 and art. 297 k.p.k. are achieved by both procedural and operational-reconnaissance activities.

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As regards the obtained means of proof, the provisions of the criminal procedure do not indicate what significance in the process of proving the perpetration of an act is also obtained by the procedural authorities from personal and material sources of evidence. They are all intended to be used to make true factual findings that are the basis of judgments. Nevertheless, the means of proof obtained from factual sources of evidence allows the obtaining of objective knowledge about the criminal act. This enables effective verification and assessment of personal means of evidence, which are often falsified as a result of the subjective assessment of a given source of evidence. A procedural act which aims to disclose and secure material evidence is certainly an examination and, in particular, their most complex form, which is the examination of the crime scene.

The examination itself is, apart from the interrogation, the most important procedural act which has not been defined by the Polish legislator in any procedural regulation. However, numerous definitions of this activity can be found in the literature. This is undoubtedly a procedural act, since its subject is a procedural authority, and its purpose is the means of proof in the process. It is also considered a criminalistics activity, because it is carried out according to the tactics formulated by criminalistics with the use of technical means and methods developed by this branch of science.

The general principles for conducting and documenting examinations are set out in the k.p.k. in art. 207–210, 143, 147, 148 and 150.

It should be emphasized that there is a diverse relationship between the effectiveness of crime scene examination and the detectability of perpetrators of crimes. Examination activities will not be of great importance in the detection process based on operational and reconnaissance activities, as well as when the perpetrators were indicated by witnesses or were arrested at the time of committing the crime. However, we will deal with a completely different situation when the perpetrator was not detected in

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this way and crime scene examination is a key activity in the detection process. Then the effectiveness of the examination, i.e. the percentage of activities during which the traces were secured,\footnote{J. Wójcikiewicz, \textit{Dowód naukowy w procesie sądowym}, Kraków 2000, p. 16.} will be of significant importance.

In the monograph devoted to crime scene examination, V. Kwiatkowska-Wójcikiewicz puts forward an interesting hypothesis, according to which, nowadays in the face of the existence of computer databases as well as modern means and methods of criminalistics techniques, both the number of revealed traces should increase, but also their spectrum should expand. This also concerns their detecting and evidentiary role.\footnote{V. Kwiatkowska-Wójcikiewicz, op. cit., p. 190.} Also, in other criminalistics publications the possibilities offered by modern technical means used to reveal, record and examine classic criminalistics evidence are presented.\footnote{M. Zubańska, \textit{Nowoczesne technologie w kryminalistyce. Aspekty prawne i kryminalistyczne}, Olsztyn 2019, pp. 91–108.} However, this issue has been discussed for years primarily in the context of their use to identify people and things.\footnote{H. Kołecki, “Funkcje śladów kryminalistycznych. Kierunki wykorzystania treści informacyjnej śladów”, \textit{Zeszyty Naukowe ASW} 1980, No. 27, p. 115.} On the other hand, sufficient attention is not paid to other problems arising in preparatory proceedings in relation to the availability of traces at crime scenes, assessment of the practice of their protection, training of officers performing the examination activities or the possibility of obtaining comparative material.

Causes of low effectiveness of crime scene examination

The quality of criminalistics activities has been decreasing in Poland for many years. This is undoubtedly one of the most important factors reducing the effectiveness of crime scene examinations. Such conclusions are possible thanks to the results of many scientific studies carried out in the form of multi-faceted examination of court files and extensive surveys.\footnote{K. Juszka, \textit{Jakość czynności kryminalistycznych}, Lublin 2007, pp. 76–80; M. Całkiewicz, \textit{Ogładziny zwłok i miejsca ich znalezienia}, Warszawa 2010, pp. 133–140; V. Kwiatkowska-Wójcikiewicz, op. cit., pp. 214–223.}
as well as careful observation of investigative practice. This is largely due to unfavorable changes that have been taking place in the police system of education for many years. The basic criterion for assessing individual schools has become the number of officers completing training, and not the level of their training. In addition, due to the growth of staff shortages, the number and duration of specialist training for officers of the criminal division was quite significantly reduced. Basic training for newly employed policemen has been an unchanging priority for many years, which is to some extent justified. However, this causes that, in the face of quite limited capabilities of the Police schools, officers carrying out investigative and operational-reconnaissance activities often wait for many years to be sent on a training course, where they are to acquire specialized knowledge on securing traces, inferring from them and the cooperation with experts of various specialties. As a consequence, such preparatory proceedings, including examination activities even in the most serious categories of crimes, are often carried out by policemen who are not prepared.

Among other reasons for the poor quality of crime scene activities the working methods of some criminalistics technicians must be pointed out. After arriving at the crime scene, they sometimes assume in advance that material traces do not present a significant identification value, have been blurred or have not been left. The consequence of this is taking cursory or schematic action which is often inefficient. On the other hand, sometimes we deal with the opposite situation, when traces are being secured, which, as results from preliminary findings, and most often confirmed by subsequent analysis of video recordings, could not have been left by the perpetrators. The described activities are unfortunately not incidental. Often, even those traces that clearly do not contribute to the detection of the perpetrators of the crime are subjected to costly laboratory tests. It is caused by the pressure exerted constantly by superiors for forensic technicians to implement the assumed measures of the effectiveness of forensic examinations. For many years, despite reasonable criticism, these measures have been one of the bases for the assessment of the work of individual police units by their superior units. This is fully confirmed by the observations of V. Kwiatkowska-Wójcikiewicz, who, analyzing the crime scene reports, aptly noticed that the forensic technicians participating in the above mentioned activities must secure any traces to jus-
tify their participation in the crime scene examination, e.g. glass fragments lying nearby.\textsuperscript{16} Such dubious actions certainly do not contribute to the achievement of the basic purpose of criminal proceedings set out in Art. 2 § 1 item 1 of the k.p.k., and this method of detecting the perpetrators. The basis for such statements is also provided by scientific research, which shows that e.g. during 988 crime scene examinations of burglary, traces were revealed and recorded in 421 cases, but only 5 perpetrators were identified on their basis.\textsuperscript{17} This clearly indicates the need to move away from current practice which serves to a large extent to achieve statistical goals and not to increase the detectability of the crime’s perpetrators.

When analyzing the effectiveness of the crime scene examination, it should not be forgotten that the perpetrators of crime are often aware of what traces left at the crime scene are secured and used by law enforcement agencies. Numerous documentaries, films, magazines, the Internet and television channels dealing solely with this issue play an instructional role in this respect.\textsuperscript{18} Thus, during crime scene examinations, valuable biological or fingerprint traces are rarely revealed that allow for the direct identification of the perpetrator,\textsuperscript{19} as well as those that allow it indirectly, such as traces of footwear or gloves. The perpetrators also often purposely cover up traces left by them.\textsuperscript{20} However, if they are left, it sometimes happens that they are unconsciously obliterated by people at the crime scene. In the case of bank robberies, this applies to cashiers and other bank employees awaiting the arrival of security units or the police or the security staff themselves. Paradoxically, these activities often result from the need to respect internal security procedures which are sometimes in conflict with criminalistics principles. Traces at the crime scene are also accidentally obliterated by other people, e.g. neighbors, the resuscitation team, police patrols. Sometimes these people create new traces that are subjected to further unnecessary examination.

\begin{itemize}
\item \textsuperscript{16} V. Kwiatkowska-Wójcikiewicz, op. cit., pp. 218–219.
\item \textsuperscript{17} Ibid., p. 220.
\item \textsuperscript{18} See: J. Stojer, “Kryminalistyka w telewizyjnych produkcjach rozrywkowych — nadzieje i zagrożenia”, Problemy Kryminalistyki 2011, No. 271, pp. 70–71.
\item \textsuperscript{19} Por. J. Konieczny, Identyfikacja kryminalistyczna, Warszawa 2017, pp. 34–40.
\item \textsuperscript{20} J. Gurgul, Kryminalistyczne znaczenie dowodów rzeczowych, Problemy Kryminalistyki 1979, No. 141, pp. 554–555.
\end{itemize}
Urbanization is undoubtedly an additional factor adversely affecting the efficiency of crime scene examination. It has the result that criminal incidents occur in public places more and more often. So there is a high probability that material traces will be destroyed before the arrival of the police, or those traces which have no actual connection with the crime, will be secured. The mere possibility of law enforcement officers revealing traces is sometimes small, due to the high probability of their obliteration. This applies in particular to street robberies, fatal beatings, killings in public places, e.g. in a disco, which I have encountered many times in my work.

Securing criminalistics traces at the crime scene does not, however, end the problems of law enforcement agencies associated with the detection of perpetrators, which is often forgotten. To make this possible, it is still necessary to obtain comparative material. Unfortunately, despite the hopes associated with the development of computer databases and the opportunities they provide in detecting perpetrators of crimes, problems with identifying the person from whom it is necessary to take comparative material will be more and more serious in Poland. It is caused by, among others, a huge decrease in the detective significance of the AFIS police base\(^{21}\) (Automated Fingerprint Identification System) in recent years. These are the direct consequences of the Constitutional Tribunal’s verdict of December 12, 2005, reference number K 32/04, in which it was indicated that art. 20 of the Police Act is unconstitutional.\(^{22}\) According to many fingerprint research experts, without systematic completion of the AFIS database by investigative services, we will deal with the situation that it will become less and less outdated.\(^{23}\) Unfortunately, the national DNA database — Genome, is also of little importance, due to the small number of samples registered in it. As J. Wójcikiewicz aptly indicates,


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such a base may be the most powerful weapon in the fight against crime, provided, however, that it is sufficiently comprehensive.\(^{24}\) Since the establishment of this base in Poland in 2007, few person-to-trace hits have been recorded.\(^{25}\) Some improvement can be expected by gaining access to other European databases.\(^{26}\)

It is necessary to emphasize that law enforcement officers conducting crime scene examinations, many times come to the erroneous conclusion that even if their actions are inaccurate and do not allow the disclosure and protection of all traces that have a connection with the crime, it will be possible, in most cases, to secure recordings from CCTV. However, they do not take into account the fact that such recordings often do not allow the identification of the perpetrators of criminal offenses who mask themselves during criminal activities. Poor quality recordings are also a serious limitation. This is confirmed by the research of P. Waszkiewicz, according to whom in Polish conditions almost 40% of the expertise of CCTV recordings does not lead to the identification of persons, due to the low quality of the material.\(^{27}\) Anthropological research experts even indicate that the majority of such recordings are of low quality. In the case of banks, many cameras are incorrectly set up, and this applies above all to those in front of the entrance, which makes registration of an unmasked perpetrator impossible. Often, for some trivial reasons, no image recordings are made as only dummy cameras are installed, or there are no cameras at all. Despite this, police officers still place great faith in the possibility of identifying the perpetrators thanks to monitoring records, sometimes expecting technically impossible things from experts. In fact, the recorded image has usually rather an evidential function and not a detective one, i.e., it only shows the actual course of the events. In some situations, it can also successfully verify the results of other procedural activities, e.g.


identification parades. In addition, problems related to commissioning anthropological expertise should be seen in a small number of experts of this branch. Therefore, it can be reasonably assumed that CCTV records will not replace an effectively conducted crime scene examination.

Conclusion

The effectiveness of crime scene examination, i.e., the percentage of activities during which traces are secured, in many cases can affect the detection of crime perpetrators. However, moderation in the formulation of numerous proposals to change Polish investigative practice should be maintained if they focus only on the examination of the crime scene. These examinations are not carried out in isolation from the surrounding reality, which, as shown here, has a significant impact on them. What is more, pointing out and discussing the mistakes that have been made for many years and already described many times in the literature have not yet influenced or resulted in an improvement of their quality.

Increasing the detection capacity based on the results of crime scene examinations depends to a large extent on the quality of the police services’ work, which properly reveals and secures traces enabling identification of perpetrators of crimes. However, this will require significant financial outlay, intensive training of officers and time. It is also necessary to build sufficiently large databases, i.e. AFIS and Genome, which in the current legal situation seems to be the most difficult task. It should also be remembered that some of the factors affecting the reduction of the effectiveness of crime scene examinations are beyond the actual control of law enforcement officers.

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30 A. Taracha, op. cit., p. 346.

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Summary

One of the primary purposes of criminal proceedings is to detect perpetrators of crimes. Among the most important factors affecting the effectiveness of these activities should be the high efficiency of the crime scene examination. It depends to a large extent on the quality of police work, but also on a number of other factors whose existence, as has been Polish investigation practice for many years, cannot be ignored.

**Keywords:** crime scene examination, detectability of crime perpetrators, criminal procedure.