
Lt. Col. Magdalena Zubańska, Ph.D.

Police Academy in Szczytno

Przemysław Knut, M.Sc.

Central Forensic Laboratory of the Police

Cold cases from the past, modern forensic tools and police cold case units, or *crimen grave non potest esse impunibile* – part I

Summary

The article addresses the issues relating to the operations of the police cold case units as well as highlights the role of modern forensic tools in solving cases that were dismissed at the pre-trial stage, due to a failure to detect the perpetrators. The first section presents the genesis of the police X-Files and the phases of their development. In addition, the authors discuss the structure of the cold case units and the manner of conducting investigative analysis. Finally, the entities collaborating with the X-Files are indicated. This article was drawn up on the basis of a master's thesis entitled: "Role of modern forensic tools in solving undetected crimes", written under the supervision of dr. Magdalena Zubańska and defended in 2016 at the Department of Internal Security of the Police Academy in Szczytno.

Keywords: cold case units, police X-Files, modern technologies

Introduction

Forensics lays the scientific foundation for those activities of experts, law enforcement and judicial authorities, which require the use of forensic knowledge (Kolecki, 2008). The history of forensics shows that progress in this field is driven by practice, while the specific cases pose new problems and trigger a search for more effective or completely new methods (Jaworski, 1999). Krzysztof Krajewski has aptly pointed out that *inasmuch as criminology can afford to be – at least to some extent – a purely theoretical science, in the case of forensics, such an attitude and approach would be difficult to accept* (Wójcikiewicz et al., 2016, p. 25). As regards forensics, modern technologies are the determinants that effect changes of the paradigm of this interdisciplinary science. The adaptation of modern technologies as forensic tools for the purposes of law enforcement authorities sets the contemporary boundaries in terms of discovering the truth. In other words, new solutions and test methods allow to gradually eliminate the so called "white spaces" from forensics. Due to high

level of computerization of the public sector and wide availability of information, the newest technological achievements can serve as a double-edged sword. Nevertheless, it is becoming increasingly difficult for criminals to escape the long arm of the law. The above applies also to the perpetrators of previously unsolved crimes that continue to stir public interest and appear on newspapers' front pages.

Such cases are mainly handled by the cold case units situated within Criminal or Investigation Departments of the Voivodeship Commands of the Police. Their arduous work, supported by innovative methods and techniques, is a synergistic approach, aimed at pursuing the Latin maxim *ubi culpa est, ibi poena subesse debet*.

The aim of the present article is to highlight the role of modern forensic tools in solving cases that were previously dismissed due to a failure to find the perpetrators or to the lack of evidence to support the suspicion of having committed a criminal offence. The above issues make up an interesting subject of study, offering the possibility to confront offences committed over the past thirty years (or forty years,

wherever the case was reopen) with an arsenal of currently available modern forensic tools. In the authors' opinion, in many cases this confrontation is won by forensic tools, which is reflected by the number of cases handled by the cold case units – commonly referred to as the police X-Files¹.

The article consists of two sections. The first section is devoted to the origin and functioning of the police cold case units, whereas the second section focuses on modern forensic tools used in the course of the X-Files investigations².

Origin of the police X-Files

The cold case units are the organizational structures situated within Criminal or Investigation Departments of the Voivodeship Commands or Warsaw Metropolitan Command, whose staff includes active or retired officers. The first cold case unit was established on 23 January 2004 in Kraków by the Decision of the Commander of the Lesser Poland Command. At that time, the full name of the unit was: Operational and Investigative Cold Case Unit of the Voivodeship Command in Kraków. The tasks of the unit, specified in the above Decision, involve:

- analysis of murder cases that were dismissed due to a failure to find the perpetrators, aimed at verifying the possibility of continuing investigation;
- analysis of cases statistically denoted as natural deaths, suicides, disappearances, drownings and accidents, in order to identify the factual murder cases;
- carrying out operational activities and pre-trial proceedings in respect to cases selected in the course of the above mentioned analyses.

The Operational and Investigative Cold Case Unit established at the Lesser Poland Command functioned for a few years. The impulse to establish a first Polish unit responsible for handling dismissed cases was a decision of the then-Head of the Criminal Department of the Voivodeship Command in Kraków, requesting the subordinate police units to provide analyses of all unsolved murders, starting from 1990. This decision was related to administrative reform of 1999, as a result of which a few districts (powiats) were annexed to the newly formed Lesser

Poland Voivodeship. One of the first cases reopened by the investigators was the murder of a 23-year-old, Kraków resident, female student of religion, committed in the end of 1998. The suspect in this most famous, cruel and mysterious case in the history of Polish forensics, fell into the hands of law enforcement authorities 19 years after discovering his offence. It is worth noting that by the time of establishing the above mentioned unit, police officers have already noted a few successes. Owing to the experience gained while in the Criminal Department, profound knowledge, thorough and comprehensive case file analysis, applying modern technologies and personal commitment, officers managed to solve the cases of the murder of 17-year-old Magdalena G. in 1997 and the disappearance of a family of three from the vicinity of Nowy Sącz.

The successes of the investigators of Kraków attracted media interest and ensured that publicity was given to each of the cold cases solved. The unit's achievements have been recognized and, as a consequence, other X-File units were established in Gdańsk, Lublin, Katowice and Poznań in the years 2004-2006. As regards regulations on the establishment and competences of the cold case units within the structures of the Voivodeship Commands, on 13 June 2008, the Deputy Commander-in-Chief in charge of criminal matters wrote a letter to all Voivodeship Commands and Warsaw Metropolitan Command, in which he requested that the need to set up such units be considered. It may be assumed that the said letter has initiated the process of establishing the above mentioned units. Furthermore, § 19(1) of the Regulation no. 1041 of the Commander-in-Chief of the Police of 28 September 2007 on detailed rules of organization and scope of operation of the police commands, stations and other organizational units, stipulates that the term "cold cases" shall be part of nomenclature used for naming criminal police units. Pursuant to the provisions of Section 3 thereof, the cold case unit can only be created under the Voivodeship Command and within the organizational structure bearing the name "criminal" or "operational and investigative". Both above provisions were maintained in Regulation no. 1031 of the Commander-in-Chief of the Police amending the Regulation no. 1041 and entered into force on 14 October 2008. In the current year, the General Police Headquarters sent a letter to all Voivodeship Commands and Warsaw Metropolitan Command with the recommendation that the cold case units should operate within the structures of the police investigation departments. Consequently, such a unit was set up on 1 August 2017 within the structure of the Criminal Bureau of the General Police Headquarters. It is intended to reinforce and complete the current organizational

¹ The term X-Files, initially coined by the media in order to trigger interest and increase the attractiveness of the subject, has subsequently become widely recognized. Both terms will be used interchangeably throughout the text.

² Information contained herein was collected during the interviews carried out between December 2016 and May 2017 with officers of the selected cold case units as well as by surveying the General Headquarters and Voivodeship Commands of the Police. Additionally, a comprehensive literature review was carried out.

structures of the Voivodeship Commands. The tasks of the unit include:

- identification of pre-trial proceedings that were discontinued due to a failure to detect the perpetrators and concerned the most serious crimes against life, health and property, as well as cases concerning missing persons, on a national scale, in order to perform reanalysis thereof and initiate the activities aimed at identifying and apprehending the perpetrators.
- carrying out procedural activities pursuant to Article 327, §3 of the Code of Criminal Procedure in cooperation with locally and materially competent Prosecutor's Offices as well as carrying out reopened investigations assigned by the Prosecutor's Offices.
- commissioning preparation of criminal analyses in support of the cases handled,
- carrying out operational and exploratory activities as part of the cases handled,
- cooperation with research institutions and centres as well as with specialists in various fields of science for the purpose of detecting the offenders,
- cooperation with organizational units of the police in the area of investigating the cases selected by the cold case unit,
- coordination of the work of the cold case units established within the structures of the

Voivodeship Commands and the Warsaw Metropolitan Command.

The above description outlines operational scope of the cold case units. The X-Files are situated within Criminal (9 units) and Investigation (8 units) Departments. An exception from this rule is a unit situated within the Criminal Terror and Homicide Division of the Warsaw Metropolitan Command. At present, (as of 20 November 2017) there are eighteen cold case units (fig. 1).

Characteristics of cold case unit staff members

The basic difficulty to be encountered when analyzing dismissed cases is not the necessity to navigate through hundreds of pages of investigation files, although this is actually quite challenging and labor-intensive activity that requires experience (in terms of the ability to read such documentation). At no time can the analysis be done on a routine basis, in order to avoid overlooking important information, fine detail, that has escaped the attention of the predecessors. According J. Gurgul (2012), paying attention to fine detail may be cost effective as in the future it can lead to closing the chain of evidence in this or any other case. The challenge is to find such nuances between the lines that will open the path towards acquiring additional knowledge and formulating new

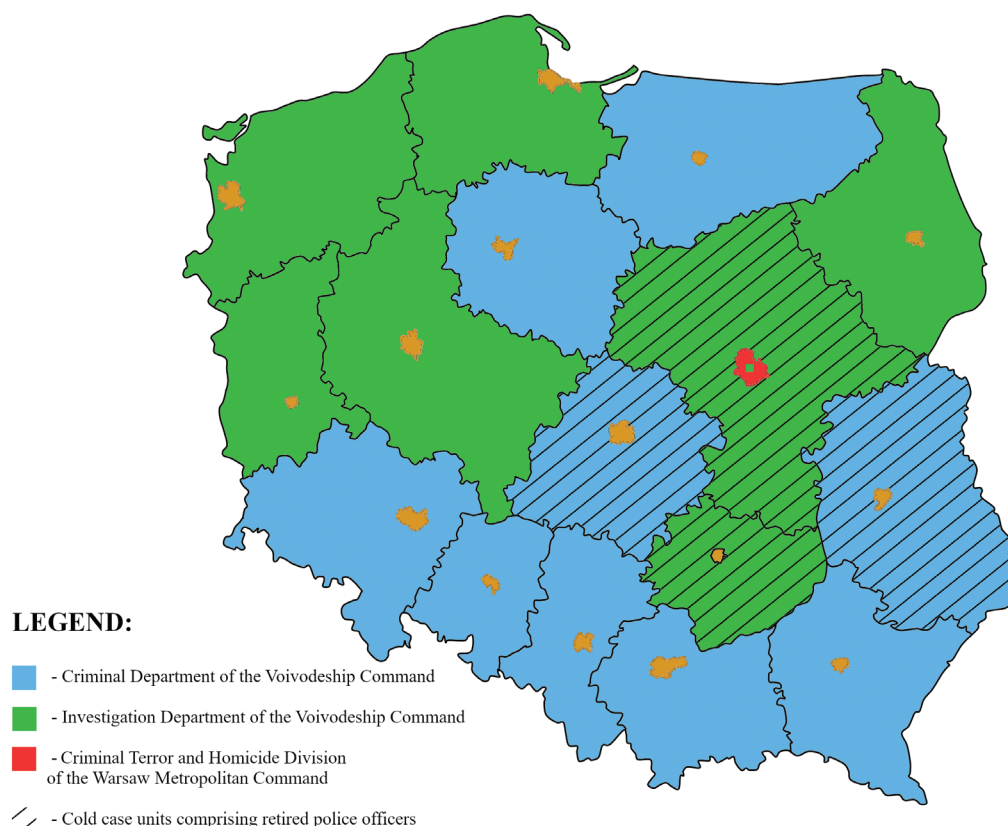


Fig. 1. Structure of cold case units (as of 20.11.2017).

investigative hypotheses. In other words, old case files should be approached without prejudice and with the assumption that there may be many existing truths that can be inferred from the photographs, sketches, words, protocols and expert opinions (Gurgul, 2012). Therefore, who should be entrusted with so specific complexities, for which no right key has been found so far? What characteristics predestine a person to join the cold case unit? Bringing appropriate persons into the unit is of paramount importance, as pointed out by J. Gurgul, who states that: "the key issue is the selection of persons, whose mental and spiritual abilities guarantee that more information will be inferred from the case file than actually present therein" (Gurgul, 2012, p. 6). A *sine qua non* condition seems to be involving the individuals who have professional experience, extensive theoretical knowledge as well as the knowledge of procedural law, individual- and group-level psychology, and analytical skills (Gurgul, 2012). Professional experience can be gained while in police service, in a variety of units and on different positions, however, the best preparation is achieved through service in criminal units. It is important to have knowledge of the specifics of investigative and operational and exploratory activities. The experience gained in this way fosters the acquisition and broadening of competences necessary in the work of an investigative analyst (and at the same time, an enthusiast).

Based on a query of available materials and interviews with officers of the cold case units, it can be concluded that an average member has at least 10 years of service and a background in criminal, investigative or criminal analysis police unit. Members of the X-Files must complement each other, since each member has his own and unique experiences, reflections and conclusions. What is beyond discussion, is that no success can be achieved by acting alone (Gurgul, 2012). Therefore, aside from the above mentioned core members of the cold case units, there are also other officers or specialists in various fields who are associated with these teams, either as cooperants, or members. For example, the Cold Case Unit of the Voivodeship Command in Katowice has two core members – officers with background in criminal service – as well as two experts from forensic laboratory, who collaborate closely with the unit. Until the end of 2016, the unit also comprised of two retired police officers employed under an indefinite-term contract. In total, retired police officers are involved in the analysis of cold cases in four cold case units. They usually have relevant knowledge, professional experience and understanding of the changes that occurred over the last few years on many levels (e.g. legal, social, cultural, economic level), as well as time flexibility (which is essential). It should be noted that

the length of service alone is not a guarantee of better efficiency in solving cold cases. The approach of the Warsaw Metropolitan Command to the selection of police officers as candidates for solving difficult cold cases (sometimes several decades old) is reflected in the practice adopted by the Voivodeship Commands: "Such a unit should comprise officers who have specialist knowledge that can contribute to the resolution of the case. Whenever needed, the unit can be extended by recruiting other officers with appropriate experience and expertise".

Table 1. Sizes of cold case units (as of 20.11.2017).

No.	Unit	Employment status		
		active police officer	retired police officer	civilian
1.	Voivodeship Command in Białystok	freelance team		
2.	Voivodeship Command in Bydgoszcz	4	-	-
3.	Voivodeship Command in Gdańsk	2	-	-
4.	Voivodeship Command in Gorzów Wlkp.	3	-	-
5.	Voivodeship Command in Katowice	6	-	-
6.	Voivodeship Command in Kielce	1	1	-
7.	Voivodeship Command in Kraków	3	-	-
8.	Voivodeship Command in Lublin	1	2	-
9.	Voivodeship Command in Łódź	2	3	-
10.	Voivodeship Command in Olsztyn	3	-	-
11.	Voivodeship Command in Opole	freelance team		
12.	Voivodeship Command in Poznań	4	-	-
13.	Voivodeship Command in Radom	5	1	-
14.	Voivodeship Command in Rzeszów	2	-	-
15.	Voivodeship Command in Szczecin	2	-	-
16.	Voivodeship Command in Wrocław	2	-	-
17.	Warsaw Metropolitan Command	5	-	-
18.	General Police Headquarters	4	-	4

The sizes of the particular cold case units appear quite interesting (Table 1). The unit situated at the General Police Headquarters has the largest number, i.e. eight members, being at the same time the only unit that employs civilians. The Voivodeship units usually comprise two officers, which is the minimum number that can be referred to as a team. However, it is difficult to determine the optimal number of members as it depends on multiple variables, such as the number of cold cases in the particular Voivodeship, staffing capabilities, availability (or unavailability) of retired police officers and employees' workload.

Hence, is there a recipe for creating an optimal team, one that will perfectly cope with all aspects of the case at hand? A fundamental element of such a concept should be the members' knowledge and experience gained while serving in technical support or investigation units. However, even assuming that the most experienced investigators and specialists in other fields, both theoreticians and practitioners, were available, this would not guarantee success with all the cases reopened years later. The reasons for the failure should be seen in improperly conducted pre-trial proceedings (especially at the evidence collection stage), and in the applicable provisions of the Penal Code and the Code of Criminal Procedure. The latter constitute both an obstacle and encouragement for archivists, giving them a fundamental incentive to tackle cold cases from years ago.

Functional model of the cold case units

The activity of the police X-Files is unique for many reasons and it consists in discovering what seems to be undiscoverable and finding new evidence in the cases that are often referred to as hopeless, i.e. when the passage of time has caused the irreversible obliteration of previously undisclosed traces. The units apply the most modern forensic techniques to reanalyze evidence secured in the course of pre-trial proceedings. Their activity relies on lateral and unconventional thinking, searching for new, alternative solutions to the case at hand, and looking at the problem from different angles. The above has been reflected in Józef Gurgul's deliberations, by making the following statement: "Not every method is suitable in specific studies of the old case files. Just to remind a popular view: each investigation and thereby each case is unique and individual. Therefore, the processes of identification and verification of issues related to a particular case must be carried out in an unconventional manner, taking into account the distinctiveness of the case" (Gurgul, 2012, p. 8). A similar opinion has been presented by B. Michalec, who initiated the activity of the Kraków-based X-File, "What hinders our cold case solving

ability, is useless, schematic knowledge, cultivated by various scholars proficient in writing and law. For me, the most important thing is to ask myself a few simple questions. Who benefited from crime?; Who may be the perpetrator?; What traces and evidence to look for? Any schemes and easy answers should be avoided and each case, perpetrator and item of evidence should be handled individually. No more and no less" (P. Litka et al., 2016, p. 19-20).

It can be therefore concluded right from the onset that the activities of the cold case units can hardly be called schematic. An attempt can be made to indicate a few most important work-related procedures of the X-Files investigators. However, it should be noted that these procedures are not obligatory and, whenever needed, can be omitted or supplemented with additional activities. Besides, for obvious reasons, no details of operational and exploratory activities will be discussed throughout this article.

Any reflections related to the handling of a cold case should be preceded by an analysis of the factors affecting the decision to reopen the case. A distinguishing feature of the cold case units is the ability (at least theoretical) to choose the most promising cases on the basis of free assessment, carried out by the team members, according to specific criteria. Which factors are paid particular attention by the investigators? One of the reasons that encourage to reopen a case file are innovative methods and tools currently available to support law enforcement activities. For example, the document prepared by the Appellate Prosecutor's Office in Gdansk, in addition to the detailed statistics on undetected murders in the area under this APO's jurisdiction in the years 1984-2013, indicated the availability of modern forensic techniques and forensic databases, as the factors that prompted the investigators to reopen and reanalyze cold cases. Owing to technological progress – so eagerly relied on by forensics – traces secured *lege artis* even decades ago, can be used towards identification of a person. This is confirmed by the results of studies conducted by the American research organization – the RAND Corporation. Asked about the factors which mainly contribute to the reopening of dismissed cases, the respondents (persons responsible for handling cold cases) indicated new methods of DNA analysis in the first place (90% of cases), and other new methods of forensic analysis in the second place (80% of cases) (Davis et al., 2011).

The dynamic technological development offers an incentive for reanalyzing all dismissed cases for which secured evidence is available. However, an even more direct stimulus is the appearance of new informants, usually previously unknown witnesses, who have been identified as a result of a long

and thorough analysis. Such a situation occurred with a dismissed case of burglary of one of road construction companies, which took place in 1997. During burglary, a night watchman was murdered. Nineteen years later, X-Files police officers managed to reach a witness, who helped them to create a facial composite of the perpetrator.

Without doubt, time, or more precisely speaking, legal provisions with regard to the statutes of limitations for criminal offences, are a key factor mobilizing the X-Files members to act. The limitations of criminal liability are regulated by Article 17, §1(6) of the Code of Criminal Procedure, which stipulates that criminal proceedings shall not be instituted, or, if previously instituted, shall be discontinued, when the prescribed statute of limitations has lapsed. This means that after a certain time period, the case gets definitively discontinued and the perpetrator cannot be held liable for the offense.

As regards the activity of the cold case units, the statute of limitations delineates the scope of their interest in a given case. The only cold cases worth reopening are those that offer promise to be successfully solved. The extinction of criminal liability excludes the possibility of case file analysis, even in spite of collecting sufficient evidence that would allow pressing charges against the perpetrator.

Pursuant to Article 101 § 1 of the Penal Code, the statute of limitations on murder is thirty years, whereas on other violent crimes it is twenty years. The cold case unit members select and give priority to those cold cases which are closest to the expiration of the statute of limitations. It should be noted that cold cases have different statute of limitations statuses, which means that the actual time remaining for solving the case is much shorter.

On the other hand, one should take into account the possibility of failure to meet the legislative deadline for filing a motion with the Prosecutor's Office to reopen the case, which, in consequence, would undermine all the efforts of the cold case unit members. Therefore, the goal of each unit is to select appropriate methods and forms of operation, and to organize the work in the most effective manner, facilitating the collection of sufficient information necessary to reinstate proceedings before the extinction of criminal liability, which extends the investigation period. Pursuant to Article 102 of the Penal Code, amended in February 2016, if in the period provided for in Article 101, §1 proceedings against a person have been instituted, the amenability to an penalty for the offence ceases after the expiration of 10 years from the end of that period. What is more, an extended statute of limitations period shall be calculated from the initiation of the proceedings in the *in rem* phase, and not from the moment of pressing

charges against a person (*in personam*). The revised provisions also include acts committed before the entry into force of the amendment, unless the statute of limitations period has expired, which is of particular importance in terms of solving cold cases. Previously, the extension period was five years, regardless of the type of crime.

To conclude deliberations on the factors affecting operations of the cold case units, it is worth mentioning the families of missing persons and those murdered by unidentified offenders who escaped prosecution. Repeatedly, it was their determination and desire to know the truth that prompted the X-Files members to analyze the particular case. Victims' relatives often contact cold case units with a request to turn attention to their cases. It should be pointed out that relatives of a missing person or murder victim usually collect information "on their own", and then establish cooperation with the investigators, who look into the details of their case.

The circumstances discussed above certainly do not exhaust all aspects affecting the decision to reopen cold case files stacked on archival shelves. As supplementary information, it is worth referring once again to research studies conducted by the RAND Corporation. In the last question of the survey, the respondents were asked to rate the factors affecting the decision to reexamine the case as well as those that contribute to solving cases to the greatest extent. The rating scale used was from 1 (negligible factor) to 5 (very important factor); the results are presented in Table 2.

Table 2. Factors impacting on the decision to reopen an investigation and on solving a case.

Factor	Rating of importance for deciding to reopen an investigation		Rating of importance for solving a case	
	Average score	Ranking position	Average score	Ranking position
New witness testimony provided	4.81	1	4.63	3
Availability of DNA evidence that could be submitted for CODIS or other database match	4.74	2	4.74	1
Other new information provided by third parties or informants	4.68	3	4.57	5

Table 2. Factors impacting on the decision to reopen an investigation and on solving a case – continued

Factor	Rating of importance for deciding to reopen an investigation		Rating of importance for solving a case	
	Average score	Ranking position	Average score	Ranking position
Availability of fingerprint evidence that could be submitted for IAFIS database match	4.67	4	4.68	2
Availability of outstanding leads to pursue	4.61	5	4.56	6
Murder weapon recovered	4.59	6	4.46	8
Identification of the offender	4.51	7	4.61	4
Projectiles/casings recovered of quality to submit for database match	4.50	8	4.40	9
Potential of obtaining additional information from witnesses	4.43	9	4.47	7
Matching the offender's <i>modus operandi</i> with other offenses (serial offender)	4.37	10	4.18	13
Identification of the victim	4.13	11	4.32	11
Appropriate storage of evidence	4.11	12	4.37	10
Possibility of retrieving a complete case file	4.01	13	4.26	12
Other aggravating circumstances	3.91	15	3.67	16
Availability of an original case file	3.62	15	3.87	14
Queries from family members or victim	3.61	16	3.23	17
Ability to consult original investigators	3.39	17	3.73	15
Statute of limitations about to expire	3.24	18	3.15	18
Media interest in the case	2.82	19	2.77	19

Finally, it is worth knowing the position of those concerned. The interviews with members of the cold case units revealed that when selecting cold cases for reexamination, they usually do not abide by any

fixed criteria or rules of conduct. It should be borne in mind that in many cases, the units comprise officers who carry out different duties on a daily basis, which require effort and commitment.

To address an essential issue of the current section, one of the first steps taken by the X-Files investigators, is to identify cases dismissed as a result of the failure to detect perpetrators, or due to the lack of statutory features of a prohibited act. The relevant information is collected, *inter alia*, from the databases and Prosecutor's Offices. Once in the possession of the list of cases, involving the most basic information about the events, officers select a case or cases to be reexamined in the nearest future. The next step consists of a comprehensive analysis of not only the case file, but also operational and control files, as well as any other material that may constitute a helpful source of information (Piotrowicz, 2009). This process is extremely time consuming, requires the reader to have abstract thinking abilities, as well as the ability to transfer virtually to the crime scene and put oneself in the shoes of various participants in the event, including police investigators, taking into account forensic capabilities of that time (e.g. the effectiveness of the test methods), but also paying attention to any inaccuracies or shortcomings related to the case. It should be remembered that the X-Files investigators, in a sense, "fix" errors committed in the past, e.g. minor details that were overlooked, failure to link persons with the particular case or to secure evidence in a proper manner. Here, an accurate diagnosis made by Józef Gurgul (2012) can be cited: *a cold case should be approached with a resolution to question the entire substance of the evidence*.

At the onset of their work, the X-Files investigators do not limit themselves to merely reading case files. For example, the Kraków unit prepares a comprehensive analysis containing all relevant information, arranged in such a manner that it follows the actual course of events, as well as the investigative hypothesis on the likely fate of the missing person (Litka et al., 2016). After establishing the facts, an attempt is made to identify the source of information, witnesses and suspects, whose data have been recorded by previous investigators and who ultimately have not been covered by the investigation. Over time, these tasks are increasingly difficult to carry out, especially in the case of murder cases that are nearing extinction of liability. This is because after 25-30 years, it may turn out that some witnesses are no longer alive, while the other do not remember the details of the event. Next, the investigators verify all forensic traces secured in the course of the proceedings, which step frequently involves forensic laboratory experts. The value of forensic traces is assessed on the basis of quantitative and qualitative analysis.

The above step can also generate considerable difficulties. Before carrying out the analysis, trace evidence needs to be localized, since it frequently “wanders” between different storages and it can take a considerable amount of time to reach it (Piotrowicz, 2009). The investigators pay particular attention to biological and dactyloscopic traces, because when reference material is available, these traces allow to identify a person, or to determine the presence of a person at the scene of an event (or events). Evidence material is examined with the use of forensic databases, mainly AFIS (Automated Fingerprint Identification System) and a DNA Database, both of which can prove extremely effective forensic tools for handling the above mentioned offences (as will be discussed in the next section).

The results of numerous studies (Wójcikiewicz, 2000; Moszczynski, 2011; Zubańska, 2016) show that genetic and dactyloscopic tests are given the highest rating by judicial authorities in terms of their usefulness. Both methods are considered to have high cognitive value, which can hardly be contested. This does not mean, however, that the cold case units exclusively rely on the above mentioned methods of forensic identification. Additional sources of information can include other traces, such as traseological, mechanoscopic and micro-traces. The importance of the latter has been recognized by investigators of the brutal murder of Iwona C. One of the suspects was identified on the basis of a single thread from his jacket that had a distinctive episcopal (purple) colour. In the course of their activities, the investigators were able to confirm that this person wore the said jacket two days after committing crime. Thus, the absence of fingerprints or biological traces does not eliminate the possibility of identifying the perpetrator.

When the number of discovered new facts relevant to the case is sufficient to reinstate the proceedings, the investigators file a motion with a competent Prosecutor's Office, pursuant to Article 327 § 1 and 2 of the Code of Criminal Procedure. In accordance with the provisions of §1, the prosecutor has the authority to reinstate the proceedings, provided that they will not apply to the person who has a suspect status during previous proceedings. In view of the above, the reinstatement is possible when the previous proceedings were carried out and terminated in the *in rem* phase (no suspect was identified), or when they were carried out in the *in personam* phase against a specific person, who, based on the *ne bis in idem* principle contained in Article 17 § 1, item 7 of the Code of Criminal Procedure, cannot have a suspect status during reinstated proceedings (Łupiński, 2014).

Although clearly compliant with one of the basic principles of criminal proceedings, the above pro-

vision would significantly hinder the possibility to prosecute the person who has previously had a suspect status. The legislature took account of this issue in Article 327 § 2 of the Code of Criminal Procedure, stipulating that the discontinued preparatory proceedings may at any time be reinstated pursuant to issuing an order of indictment or, in the absence of indictment, against a person who was accused as a result of being examined as a suspect in the previous proceedings. A body authorized to reinstate the proceedings is the state prosecutor senior to the state prosecutor who has issued or ratified the order on discontinuance. As regards violent crimes, an order to reinstate preparatory proceedings may only be issued in the event when circumstances of vital significance have been discovered that were unknown to the previous proceedings. This precondition is indisputably linked to the development of modern technologies and test methods. Frequently, the X-Files investigators have to deal with the dismissed cases, in which the perpetrator was given a suspect status, but the judicial authority failed to prove him guilty, due to the limitations of science at that time, ineffectiveness or the lack of the test methods enabling the identification on the basis of traces secured (e.g. dactyloscopic, biological), or insufficient information. An example could be the 1991 triple murder of a married couple of dentists and their caregiver in Opole Lubelskie. The event caused a shock among residents of a small village, and attracted country-wide media attention. Neither the detailed scene examination, in the course of which numerous traces were secured, nor the efforts of the investigators and Prosecutor's Office have produced a solution. Among the dozens of interrogated people was then 46-year-old Zdzisław F., but the Prosecutor's Office lacked sufficient evidence to file an indictment. The man was released after collecting his biological material. After 20 years, this case was reopened by the Cold Case Unit in Kielce. The case file was reanalyzed and selected material was subjected to genetic testing. Forensic DNA tests delivered breakthrough results, based on which the proceedings were reinstated against the same person, pursuant to Article 327 § 2 of the Code of Criminal Procedure.

The above example illustrates the standard operating procedure of the cold case unit, namely filing a motion with the competent Prosecutor's Office to issue an order reinstating or reopening the proceedings. In this situation, the X-Files are the first to acquire new information and evidence, which allow to conclude that the particular case bodes well for the future. Frequently, it is also the prosecutor who discovers new facts and can take the initiative to reinstate or reopen the proceedings. Before this

is done, pursuant to Article. 327 § 3 of the Code of Criminal Procedure, the prosecutor is authorized to either personally undertake, or entrust to the Police the taking of evidentiary action necessary in connection with verifying the circumstances serving as the basis for the issuance of such an order.

Subsequently, further steps aimed at detecting the offender on the basis of the evidence collected, are taken. The aim of the unit members is to convert operational material into court admissible evidence. The final stage of this process is drawing up an indictment and sending it to the court (Piotrowicz, 2009).

Cooperation between cold case units and other authorities

The above deliberations can be complemented by highlighting the cooperation of the cold case units with entities that have specialist knowledge, experience, research facilities, or the activity profile that can contribute to achieving progress on the case. It is a truism to say that the participation of many actors in problem-solving process is a big advantage, however, in the context of the X-Files activity, this statement takes on particular importance. The complexity and multifaceted nature of crime, in conjunction with the investigators' imagination and experience, as well as the dynamic scientific and technical development, virtually enforce cooperation focused on achieving the objective pursued, which is to prosecute the perpetrator.

The X-Files members admit seeking assistance from experts and specialists on a frequent basis. The cooperation encompasses police forensic laboratories, Central Forensic Laboratory of the Police, Institute of Forensic Research in Krakow, as well as Forensic Medicine Departments. It consists primarily in assessing and selecting evidence for testing (e.g. genetic testing), consulting experts on the manner of handling evidence and requesting expert opinions. It can be said without exaggeration that the role of experts in the process of investigating the truth is not to be underestimated. The activity characteristic of the cold unit members is to look for solutions where no one has looked before, to seek support from persons, modern tools and solutions that no one has previously considered or has not had an opportunity to reach for. Hence, various stages of the proceedings involve appointing experts from a range of disciplines, whose knowledge and skills can be used towards confirming the investigators' hypotheses and determining new facts. One relevant example can be the above mentioned case of murder and skinning of a 23-year-old woman of Kraków To explain the circumstances of the death

of this Jagiellonian University student, experts of the University of Wrocław were involved, who carried out an expertise with the use of three-dimensional imaging technique, aimed at determining the type and mechanism of injuries inflicted on the woman by the killer. Based on the results, the investigators concluded that the victim was tortured before her death, which in turn prompted the District Prosecutor's Office in Kraków to appoint a Portuguese expert in the relevant field. Since the reinstatement of this case in 2012, both the X-Files officers and the Kraków Prosecutor's Office have been cooperating with the FBI experts.

When handling other cases, the cold case unit investigators have appointed, *inter alia*, experts specializing in searching for human corpses, including aquatic environments and Military Police forensic technicians operating crime scene mapping equipment.

Additionally, in the case of the proceedings dismissed due to a failure to detect the perpetrators, expert psychologists (profilers) are frequently appointed and given a task to draw up a psychological portrait of an offender on the basis of available information. According to J. K. Gierowski, an essence of psychological profiling (in line with the principles of forensic psychology) is "to obtain a short, dynamic characteristics, briefly capturing the most important personality traits and behaviors of an unknown perpetrator" (Gierowski, 2007, p. 410). The benefits of cooperation with profilers are reflected by final court judgments convicting the offenders in cases from the past that were reanalyzed by the X-Files members. A good example is the expertise drawn up by an investigative psychologist, which helped officers of the X-Files in Bydgoszcz to solve a 20-year old murder case. Even though fingerprints were a key evidence in the case, it was a facial composite matching the victim's neighbor that ultimately contributed to solving this case and sentencing the offender to a 15-year prison term.

Obviously, cooperation with the Prosecutor's Office is of particular importance. Another important link in the chain of entities participating in the prosecution of perpetrators of undetected crimes are criminal intelligence departments of the Voivodeship Commands, or, more precisely, the cooperation with criminal analysts. It is not hard to imagine how big a challenge is to develop a network of contacts on the basis of a case file content, often encompassing hundreds of names and interrelated circumstances. Graphic presentations can significantly improve the process of organizing facts and formulating conclusions and investigative hypotheses on this basis. The results of analytical work are invaluable to the X-Files investigators.

Also, the role played by the media is not to be ignored. The newspapers, Internet portals and television publicize unsolved crimes. Cooperation between the cold case units and the media consists primarily in issuing appeals using channels of mass communication, requesting persons having any knowledge of the circumstances or the offender to share it with the investigators. Such an approach may contribute to identifying previously unknown witnesses, revealing other details, or, as practice shows, also to apprehending the offender. A good example can be a TV series entitled "Magazyn Kryminalny 997" [equivalent of an American TV series *Bad Boys*], aired in the years 1986-2010 (with intervals). Already the first episodes led to arrests of murder suspects, based on information received from viewers that turned out to be helpful in the investigation. It happened twice that the factual offender participated in reconstruction of a crime that he himself committed earlier. However, whenever a request is made to the media to publicize a dismissed case, one should take into account certain risks and difficulties that this may entail. Media coverage can be biased with a purpose of causing a sensation, or reveal too much information, which may become counterproductive for law enforcement authorities. Another problem could be the "rash" of unreliable witnesses, whose testimonies are fictional and make no valuable contribution to the investigation. Such pseudo-witnesses are a source of misinformation and require investigators to engage in additional unnecessary activities (Litka et al. 2016).

The catalog of cooperating entities is very extensive and it remains open. In addition to the above mentioned institutions, it includes entities that can offer help in clarifying the individual circumstances, which are of particular importance in the context of the case at hand. For example, weather conditions on the day when a crime was committed can be determined with the help of the Institute of Meteorology, whereas consulates can cooperate in the identification of corpses of unknown identity, presumably of foreign nationals. When, based on the reasonable assumption of finding a hidden human corpse or items relevant to the case, a water reservoir needs to be searched, the investigators can seek assistance from the Scuba Diving Special Group of the Polish Armed Forces. There is also ongoing cooperation with mobile network operators (in terms of obtaining data which do not constitute telecommunications content), recognized scientific authorities as well as officers of other services and formations.

Owing to the efforts of the X-Files members and their cooperants, even years after committing a crime, the front pages of newspapers can boast

the following headers: *Killer arrested after 19 years (...); Killer identified after 27 years (...); The 22-year-old murder case solved (...)*. The presence of such headlines inspires optimism and provokes the reader's reflection that no offender can feel safe (Zubańska, 2016). Besides, as stated by Józef Gurgul (2012), any mistakes of judicial authorities, both related to major cases, as well as to those that are seemingly minor and low profile, yet socially onerous, put their reputation at risk. Reading through old case files is not a waste of time.

Sources of figure and tables:

Figure 1, table 1: authors

Table 2: [1]

Bibliography

1. Act of 6 April 1990 on the Police (Journal of Laws of 1990, Vol. 30, item 179, with further amendments).
2. Act of 6 June 1997. The Code of Criminal Procedure. (Journal of Laws of 1997, Vol. 89, item 555, with further amendments).
3. Act of 6 June 1997. The Penal Code (Journal of Laws of 1997, Vol. 88, item 553, with further amendments).
4. Davis, R.C., Jensen, C., Kitchens K.E. (2011). *Cold-Case Investigations. An Analysis of Current Practices and Factors Associated with Successful Outcomes*. http://www.rand.org/content/dam/rand/pubs/technical_reports/2011/RAND_TR948.pdf [accessed on July 2017].
5. Gierowski, J.K. (2007). Construction of a facial composite of an unknown offender. In: J. Wójcikiewicz, (ed.), *Ekspertyza sądowa: zagadnienia wybrane*. Warsaw: Wolters Kluwer Polska Publishing House.
6. Gurgul, J. (2012). Sens czy bezsens wracania do starych spraw? *Problemy Kryminalistyki*, 277(3).
7. http://www.gdansk.pr.gov.pl/pliki/komunikaty/Zbrodnie_niewykryte.pdf [accessed on September 2017].
8. Jaworski, R. (1999). *Opinia z ekspertyzy poligraficznej jako dowód odciążający*. Wrocław: Kolonia Publishing House.
9. Kołdecki, H. (2008). *Kryminalistyka i nauki penalne wobec przestępczości*. Poznań: Publishing House of Poznań.
10. Litka, P., Michalec, B., Nowak, M. (2016). *Policyjne Archiwum X*. Kraków: WAM Publishing House.
11. Łupiński, J. (2014). Podmioty uprawnione do złożenia wniosku o podjęcie na nowo postępowania przygotowawczego. *Prokuratura i prawo*, 11–12.

12. Moszczyński, J. (2011). *Subiektywizm w badaniach kryminalistycznych. Przyczyny i zakres stosowania subiektywnych ocen w wybranych metodach identyfikacji człowieka*. Olsztyn: University of Warmia and Mazury Publishing House in Olsztyn.
13. Regulation no. 1031 of the Commander-In-Chief of the Police of 14 October 2008 amending the Regulation on detailed rules of organization and scope of operation of the police commands, stations and other organizational units (Journal of Laws of the General Police Headquarters, Vol. 17, item 102).
14. Regulation no. 1041 of the Commander-In-Chief of the Police of 28 September 2007 on detailed rules of organization and scope of operation of the police commands, stations and other organizational units (Journal of Laws of the General Police Headquarters, Vol. 18, item 135).
15. *Statement by the Spokesman of the Appellate Prosecutor's Office in Gdansk Analysis of investigative case files on the undetected offenses committed in the years 1984–2013*.
16. Szef MSWiA o pracy Archiwum X: przestępcy nie mogą spać spokojnie. <http://www.pap.pl/aktualnosci/news,931511,szef-mswia-o-pracy-archiwum-x-przestepcy-nie-moga-spac-spokojnie.html> [accessed on May 2017].
17. Wójcikiewicz, J. (2000). *Dowód naukowy w procesie sądowym*. Kraków: Institute of Forensic Research Publishers.
18. Wójcikiewicz, J., Kwiatkowska-Wójcikiewicz, V., (ed.). (2016). *Paradygmaty kryminalistyki*. Kraków: Jagiellonian University Publishing House.
19. *Wszystko przed nami! Rozmowa z Dariuszem Piotrowiczem*, <http://www.policja.pl/pol/aktualnosci/41763,Wszystko-przed-nami.html> [accessed on July 2017].
20. Zubańska, M. (2016). Badania daktyloskopijne i genetyczne – TAK, badania poligraficzne i osmologiczne – NIE, czyli o postrzeganiu ekspertyz kryminalistycznych przez decydentów procesowych. In: J. Moszczyński, D. Solodov, I. Sołtyszewski, (ed.), *Przestępczość. Dowody. Prawo. Anniversary book presented to Professor Bronisław Młodziejowski*. Olsztyn: University of Warmia and Mazury Publishing House.
21. Zubańska, M. (2016). Nowoczesne narzędzia techniki kryminalistycznej a niewykryte przestępstwa sprzed lat – czy sprawcy powinni się bać? *Przegląd Policyjny*, 3(123).

Translation Rafał Wierchośławski