

## Traffic accident research

**Alexandru-Adelin Buzescu**

Independent researcher

**Abstract.** Undoubtedly, road safety has always been an important topic for all societies, in the idea that life is movement and economic development and not only, has depended closely on road transport. This also had less beneficial parts, leading to the occurrence of road accidents, which led to the legislating of the road sector. It is true that road accidents are a real problem, always present and the violation of traffic legislation is permanent. Thus, the continuous development of motor transport, the increase in the number of cars and their diversification, as well as the rapid intensification of road traffic determine the intensification of concerns and efforts in order to ensure road traffic safety. These concerns are particularly necessary, as objective reality shows us that this increase in the number of accidents is directly proportional to progress, innovation and improvement in the technical performance of motor vehicles. The complexity of the forensic investigation of road accidents caused by the violation of the precautionary rules is determined by the fact that several factors can be at the basis of their occurrence. Therefore, it must be taken into account that the statistical data show us that the largest share in the occurrence of road events with serious consequences was and continues to be played by the man, either as a driver or as another traffic participant. The reduction of the number of road traffic accidents and the reduction of their consequences depends to a large extent on the human factor, on which scientific research has the social and moral obligation to develop predominantly. The individualization of legal, educational, psychological levers for modeling behavior in road traffic must be an absolute priority for researchers in the field and legislative bodies. Moreover, the forensic characteristic of a crime contains only those elements that are relevant for the discovery of the crime and that will serve as evidence of the content of the evidence. An element that essentially characterizes this criminal phenomenon from a forensic point of view is the elucidation of the essence of the notion of "traffic accident" or "road accident", a phrase that is not ambiguously defined in the legislation, the diversity of its interpretations in the specialized literature being very large. Although traffic accidents have a rich diversity, they have certain common features that allow them to be classified according to different criteria. Among the persons responsible for the accident are considered the drivers of motor vehicles, pedestrians, passengers in public transport who do not comply with the rules of getting on and off the means of transport. A particular aspect of this problem is the identification of the driver of the vehicle who left the scene of the accident. Regarding the consequences produced by the accident, we can mention the medium or serious injuries to the victim's bodily integrity or health, as well as the death of the victim, consequences that are mandatory to establish, because they are of particular importance to the legal classification of the deed. The clarification of this aspect is also revealed by the fact that the establishment of the criminal consequences indicated by the letter of the law is one of the indispensable conditions for the existence of the crime.

**Keywords.** criminal investigation bodies, forensic investigation, material means of evidence, investigation of the crime scene, framing of the crime

In the following lines, I will present some general aspects and in particular I will refer to the judicial practice, which is based on the consequences of the violation of the rules on traffic on public roads and which are generically called traffic accidents<sup>1</sup>. In fact, traffic accidents are consequences of violating the rules on traffic on public roads, constituting crimes provided by the criminal law. Apart from the advantages and facilities brought to the life of the person and society, car transport has produced and continues to produce special effects, including the loss of human lives and very large material damages.

As for the statistics compiled both worldwide and at national level, they show that traffic accidents occupy the third place, as a mortality factor, after cardiovascular diseases and cancer, and for people under 35 years of age, traffic accidents are the main cause of death.

We can classify traffic accidents as follows: collision of means of transport, overturning and damaging of vehicles, hitting fixed objects on the sides of the public road, falling of a passenger, loader, companion, from the staircase or from the body of a motor vehicle, etc.

In the following lines, I will refer to the method of investigating the crimes of manslaughter and manslaughter resulting from road events, these being the facts with the highest social danger. On the other hand, we note that the method of investigating the other crimes, namely culpable destruction, abuse of office against public interests and negligence in office, is the same, regardless of whether the acts were committed on a public road or in other places.

Considering the legal aspects, as far as manslaughter is concerned, it can also be committed by the driver of a vehicle either with mechanical traction or with animal traction, the act being characterized by the cause that determined the result produced, namely, the non-compliance with the legal regime for the exercise of a profession, trade or a certain activity<sup>2</sup>.

Therefore, in order to retain the commission of the crime of manslaughter in the aggravating manner presented by Article 178 paragraph 2 of the Criminal Code, the following essential requirements are required to be met:

- the perpetrator must be the driver of a motor vehicle-car, truck, bus, trolleybus, tram or any means of transport with mechanical propulsion, which circulates on public roads, or the offender must have had at the time of committing the act an alcoholic intoxication above the legal limit or has been intoxicated. From the point of view of the listed requirements, the latter constitutes a non-compliance with the legal provisions regarding the driving of a motor vehicle on public roads, the road regulations criminalizing such an act committed by the person in such a state. With regard to this modality, it should be noted that the legislator provided for the alternative of forms of alcohol intoxication, on the one hand, due to the fact that a person can be intoxicated without reaching the legal limit of alcohol intoxication, and, on the other hand, because the state of intoxication can be proven by any means of proof. If the manslaughter was committed by a professional driver, in a state of intoxication, the third aggravated normative modality is fulfilled, the law establishing the legal presumption of guilt for those who exercise a profession or a trade in such a state and cause the death of a person. Finally, the last aggravated form of the crime of manslaughter is the plurality of victims, which refers to all the ways of committing the crime, both simple and aggravated<sup>3</sup>.

<sup>1</sup> Statistical Yearbook of Romania for 2016

<sup>2</sup> V. Dongoroz, *Theoretical Explanations of the Romanian Penal Code, vol 1, general part*, Romanian Academy Publishing House, Bucharest, 1975

<sup>3</sup> Ivan Anane, *Elements of Criminal Procedural Law*, Pro Universitaria Publishing House, Bucharest, 2015

Culpable bodily injury is the act of the person who causes, through the fault of another person, any of the injuries, consequences of the crimes of bodily injury or serious bodily injury. The law also provides for two aggravated ways for this crime.

Knowing the normative and factual modalities of the crimes of manslaughter and manslaughter, the criminal prosecution bodies have the possibility, in addition to ensuring an appropriate legal framework, in relation to the crime actually committed, to establish the problems that the investigation must clarify and implicitly, the appropriate activities that will be carried out for the administration of evidence. The criminal prosecution bodies<sup>4</sup> are faced with a multitude of situations, and the clarification of the problems raised by the investigation and the performance of the necessary activities for this purpose requires the acquisition of knowledge from various fields of activity.

The on-site investigation can be defined as a procedural activity carried out according to forensic technical-tactical criteria, which has as its object the direct perception of the place where a crime was committed or an event with legal implications occurred, highlighting the circumstances in which they occurred, discovering, fixing, preserving, collecting and interpreting the traces and material means of evidence, specifying their status and position, in order to establish the nature of the act or event, to identify the persons and objects that created the traces and to administer the evidence in the judicial process.

This type of investigation is one of the most important acts of criminal investigation, of an immediate and necessary nature. The on-site investigation in the case of traffic accidents is oriented in two important directions: establishing the circumstances of the place, time and manner in which the accident occurred, as well as discovering, fixing and removing the traces formed on the occasion of the accident. In fact, traffic accidents are divided into two categories: those in which the perpetrator remained at the scene of the accident (including when he took the victim to the hospital and returned) and those in which the perpetrator left the scene of the accident (it is necessary to identify the perpetrator).

The first measures after the accident are taken by the police body: providing first aid, ensuring the security of the place, identifying the other persons involved in the accident and witnesses, reporting the event, taking measures to decongest the traffic<sup>5</sup>.

This research comprises several stages:

1. Preparation of the investigation of the accident site - the investigation is done by a mixed team (possibly, the participation of the prosecutor is not excluded). This training consists of: checking and completing the measures initially taken by the police officer; the clear delimitation of the place of the crime; obtaining initial information; establishing the tasks and technical-scientific methods that would be used;

2. Carrying out the actual investigation - in the static phase: examining and fixing the overall appearance of the accident site, establishing the position of the vehicles, the victim-vehicle distance, victim-discovered traces. Forensic photographs will be taken - emphasis will be placed on braking marks. In the dynamic phase (the most laborious stage) a thorough examination of the accident site is carried out (the traces are fixed, interpreted and removed). There will be several categories of traces: of the running system, of some parts of the bodywork, in the form of remains of objects and materials, biological of human nature, remains of clothing. Some traces are discovered on the body of the injured person.

---

<sup>4</sup> Gheorghe Buzescu, *Rules of Police Theory and Practice*, Pro Universitaria Publishing House, Bucharest, 2016

<sup>5</sup> Ivan Anane, *The Investigation of the Criminal Prosecution Bodies*, Pro Universitaria Publishing House, Bucharest, 2014

By examining and interpreting the discovered traces, several important problems can be solved: determining the type of vehicle, determining the direction of travel (anti-skid design, oil marks), determining the driving speed (measuring the length of the braking track).

The results of the research are fixed by means of minutes, photographs, sketches, but also by videotaping.

The on-site investigation, like any other activity of investigation of criminal facts, is carried out in strict compliance with the regulations in force regarding this evidentiary procedure. The on-the-spot investigation may be ordered by the judicial body with reasons, whenever it is considered necessary to resort to this evidentiary procedure. In the criminal investigation phase, the on-the-spot investigation is ordered by a reasoned solution of the criminal investigation body, usually before the start of the criminal investigation<sup>6</sup>. The investigation shall be carried out in the presence of assistant witnesses, except in cases where such presence is not possible. If the accused or the defendant cannot be brought to the investigation, if he is detained or arrested, the criminal prosecution bodies will inform him that he can be represented and will ensure his representation, upon request..

In our criminal procedural legislation, special attention is paid to the full exploitation of the defendant's right to defense, meaning that the defendant's or defendant's chosen defense counsel can participate in carrying out any act of criminal investigation, including the on-site investigation.

The importance of the on-the-spot investigation lies in the relevance of the evidentiary procedure in finding out the truth. The movement of the judicial body to the spot is "one of the most effective procedural measures". The fact that the criminal prosecution body, as well as the court, have the possibility to directly investigate the place where the crime was committed and to assess the consequences of the crime, to establish the circumstances in which the criminal act was committed and to identify the perpetrator by discovering, fixing, collecting and forensically investigating the traces, material means of proof is likely to effectively contribute to the achievement of the purpose of the criminal trial. It is all the more necessary to emphasize the importance of this procedural activity, as there are crimes whose resolution is practically inconceivable without on-the-spot investigation. (e.g. in the case of homicide, crimes of destruction, navigation accidents, etc.).

The on-the-spot investigation is not a simple initial act of criminal investigation, but an activity of utmost importance with an immediate and irreplaceable character, in many situations being impossible to repeat, under the same conditions and the same results<sup>7</sup>.

The examination of the place of the crime is "the most important part of the investigation of the criminal case", the importance of the investigation is explained by the fact that the place of commission of an act is the richest in traces or data related to the crime and its perpetrator, so, by the way in which the entire investigation, search and collection of traces or material evidence is carried out, As well as fixing the results, the resolution of the case, the identification of the perpetrator, of the other participants in the issuance of the criminal act will depend to a large extent.

The judicial practice and the Romanian and foreign doctrine have revealed that the main tasks incumbent on the on-site investigation are:

---

<sup>6</sup> L. Coman, M. Constantinescu, *Practical Treatise on Forensics, vol. I*, Ministry of Interior, Bucharest, 2002

<sup>7</sup> C-tin Pletea, C-tin Aioniotoaie, V.Bercheșan, *Research on the spot in Treatise on Forensic Tactics*, Carpathian Publishing House, Bucharest, 1992

- knowledge and direct investigation by the criminal prosecution body or by the court of law of the crime scene or of the places registered in the category of "place of the deed". In the Belgian Code of Criminal Procedure, concerning the main tasks of the on-the-spot investigation, the following are indicated as the main objectives: the ascertainment of the bodies of crime, their condition, the place of the crime, the removal of weapons and other objects that can be used to listen to and identify persons. The direct, direct contact of the judicial body with what is called the "scene" or "ambiance" of the crime scene, serves to form an accurate image of the setting in which the deed was committed, to determine the position and distance between the main objects, etc.;

- discovering, fixing and collecting the traces of the crime, of the material means of proof. The discovery of the traces, followed by their immediate interpretation on the spot, is likely to provide clues, at least of a general nature, as to the nature of the act and even to the person of the perpetrator;

- identification of possible witnesses, since depending on the concrete conditions of the place and time of the commission of the deed, it can be established whether, and to what extent, the activity of the offender could have been perceived by someone (because there are not a few cases in which witnesses of the event are immediately found);

- obtaining data on the way the event occurred, the perpetrator's mode of operation, possibly data on the number of participants. From the on-site investigation it can be deduced how the investigated event occurred;

- elaboration of general versions regarding the criminal act and the participants in its commission, at least of a provisional nature. The tasks of the on-the-spot investigation are in fact objectives of the investigation carried out in that case.

The on-the-spot investigation in the case of traffic accidents is one of the most important acts of criminal investigation, with an immediate and necessary nature, depending on the way in which it is carried out, depending directly on the resolution of the case<sup>8</sup>. The investigation of traffic accidents is also specific to some peculiarities that can be found in the entire methodology of road accident research. The on-site investigation of traffic accidents is oriented in two main directions:

a) Establishing the circumstances of place, time and manner in which the accident occurred;

b) Discovering, fixing and removing the traces formed during the accident. Based on the data obtained through the investigation at the scene of the crime, which includes the hearing of the persons involved in the accident and eyewitnesses, the criminal investigation body has the possibility to formulate the first versions regarding the nature of the event. The elaboration of the versions is a tactical component of the investigation of road events in which the perpetrator of the deed left the scene of the accident.

The investigation of traffic accidents can be divided into two main categories:

a) Investigation of traffic accidents in which the perpetrator remained at the scene of the crime, in a similar situation being the one who returned to the scene, after taking the victim to the hospital;

---

<sup>8</sup> Em. Stancu, V. Bercheșan, *Criminal Research – Complete Guidance for Criminal Investigation*, Icar Publishing House, Bucharest 2001, C-tin AioniGoaie and collaborators, *Treatise on Forensic Tactics*, Carpathian Publishing House, Craiova, 1992, L. Coman, M. Constantinescu, *Conducting Research on the Spot, in Practical Forensic Treatise*, vol. I, Ed. Ministerului de Interior, Bucharest 1976



b) Investigation of accidents in which the perpetrator left the scene of the accident, which requires the identification of the vehicle and its driver.

In judicial practice it has been shown that the obligation not to leave the scene of the accident is incumbent on all drivers involved in the accident, namely: the driver who directly caused the accident, the driver of the injured vehicle (if applicable), the drivers of other vehicles in the perimeter of the place if they contributed in one way or another, more or less to the occurrence of the accident. Thus, the defendant, by engaging in an irregular overtaking (without insuring himself), contributed to the greatest extent to the accident, thus having the legal obligation not to leave the scene of the accident. Neoprint, although he saw everything that happened, immediately leaving the scene of the accident, he became an active subject of the crime<sup>9</sup>. Relevant for the existence of the prerequisite situation is the condition of the number of medical care necessary for the healing of the victim's injury, produced by the traffic accident, even if immediately after the accident the injuries seem superficial. Thus, in another solution it was shown that following the accident, the victim was thrown to the ground and the car was damaged, the defendant leaving the scene of the accident because the victim would have declared that he felt fine.

Subsequently, it was established that the victim had suffered injuries for which it took 30-35 days of medical care to heal, so that the defendant was convicted of committing the offense provided by art. 89 para. 1 of GEO no. 195/2002 republished<sup>10</sup>. There are two situations in which the legal obligation not to leave the scene of the accident exists: one that is premised on the occurrence of a traffic accident resulting in the killing or injury to the bodily integrity or health of one or more persons, and one that is premised on the occurrence of the accident as a result of a crime, without imposing certain consequences by law as in the first case. Judicial practice has established that, whenever the accident was caused by a driver of a vehicle who had an alcohol content in his blood, even if this has not yet been established, he had the obligation not to leave the scene of the accident, because only the judicial bodies are able to qualify the act as a crime<sup>11</sup>. It was concluded in the present case that "for the existence of the crime of leaving the scene of the accident provided by art. 89 para. 1 of GEO no. 195/2002, it is not relevant that the bodily injury produced, even by negligence, or the killing of a person has or is not of a criminal nature", the content of the crime being carried out even if there is no guilt in the occurrence of the accident on the part of the driver who left without the consent of the judicial bodies<sup>12</sup>.

About the occurrence of traffic accidents resulting in death or injury to the bodily integrity or health of some persons, the criminal prosecution bodies are notified through all known methods of notification: criminal complaint, denunciation or ex officio notification, the weight being held by the denunciations made by road traffic participants drivers, cyclists, pedestrians, etc. In order for the manslaughter or bodily injury to be considered as a result of the violation of the norms Regarding traffic on public roads, the place of the deed must be located on such a road, i.e. on a land communication route, except railways, arranged for the

<sup>9</sup> The Court of Appeal of Târgu Mureș, criminal section, dec. no. 89/26 February 1999, [www.spete.avocatura.com](http://www.spete.avocatura.com)

<sup>10</sup> The Court of Appeal of Alba Iulia, criminal section, dec. no. 423/4 September 2008, [www.jurisprudencedo.com](http://www.jurisprudencedo.com)

<sup>11</sup> The Court of Appeal of Cluj, Criminal and Juvenile Section, dec. no. 1614/13 October 2011., <http://portal.just.ro/InstantaJurisprudenta>

<sup>12</sup> The Court of Appeal of Cluj, Criminal and Juvenile Section, dec. no. 1614/13 October 2011, <http://portal.just.ro/InstantaJurisprudenta>

circulation of vehicles, under the administration of a state body, if it is open to public traffic<sup>13</sup>. It should be noted that the roads that normally serve a certain public unit or organization are also open to public traffic, if that unit or organization does not consider it necessary to take restrictive measures by installing visible signs prohibiting public circulation, and both its own vehicles and other vehicles circulate on the roads in question. The clarification of the place where the accident occurred is of particular importance, both from the point of view of the correct legal classification of the committed act, and for establishing the investigative competence, both from a material and territorial point of view, knowing that in the case of crimes against labor protection, the criminal prosecution is necessarily carried out by the prosecutor.

From the point of view of the consequences of non-compliance with the traffic rules on public roads, the investigation must clarify whether the event caused the death of one or more persons, the injury to the bodily integrity or health of one or more persons, the damage to a person's property, as well as the existence of the causal relationship between the driver's action or inaction and the result produced. In the case of the crime of negligent bodily injury, the nature of the injuries caused by the traffic accident and, in particular, their seriousness are of interest. In fact, this last aspect is one of the main problems of the research. In relation to the seriousness of the injuries caused, the culpable bodily injury entails both an appropriate legal framework and the determination of the specific investigation methodology, depending on whether the act was committed, in its typical form or in the two aggravated ways.

The clarification in all aspects of the consequences of non-compliance with the rules on traffic on public roads both in relation to manslaughter and manslaughter itself, as well as with regard to other consequences, is likely to provide the necessary framework for the thorough and legal settlement of the case.

The various statistical analyses carried out at national and international level demonstrate that traffic accidents are not accidental nor unpredictable or inevitable, only their occurrence at a given moment being accidental. In the specialized literature it is shown that by establishing the action that determined the accident, it is possible to determine who is the author, and therefore, who can be held responsible, this being the meaning of the research of the causal relationship in the field.

The factors that contribute to the occurrence of traffic accidents can be grouped into two main categories: external factors and internal factors<sup>14</sup>. Among them we mention:

- a) the characteristics and condition of the public road;
- b) meteorological and visibility conditions;
- c) the intensification of road traffic on the respective artery;
- d) the condition of the vehicles involved in the accident;
- e) the state and behavior of road traffic participants.

The result of the on-site investigation is established by the on-site investigation report, the sketch of the crime scene, the judicial photographs – the related photographic plate and the video recordings.

The content of the on-the-spot investigation report - which is the main means of fixing - must result from the following:

<sup>13</sup> E. Stancu, *Criminalistics, vol.II*, Actami Publishing House, Bucharest, 1999, p. 92; I. Mircea, *Forensics*, Didactic and Pedagogical Publishing House, Bucharest, 1978

<sup>14</sup> Ivan Anane, *Road Legislation*, Pro Universitaria Publishing House, Bucharest, 2014

- the year, month, day and place of preparation; the composition of the investigation team, specifying the rank, name, surname and criminal prosecution body from which their members come; the name, surname, capacity and unit from which the other participants come; the factual basis for conducting the on-site investigation; the manner of notification and its brief content; mentions regarding the assistant witnesses; location of the crime scene; the measures taken for the protection and preservation of the traces and material means of evidence, before the arrival of the research team; the changes made in the field of the crime, who made them and for what purpose; the position in which the victim was found and the vehicle involved in the accident; the result of the victim's examination and the measures taken to provide medical care; mentions about the measures taken to insure the vehicle involved in the accident and, as the case may be, to drive the perpetrator in order to collect biological samples and the clinical examination necessary to establish the blood alcohol level; mentions about the judicial photographs taken and about the drawing up of the sketch of the accident site; the observations of the assistant witnesses, the objections of the perpetrator.

The examination of the vehicle that is alleged to have been involved in the accident is the most important moment in the investigation of traffic accidents. In the practice of criminal prosecution bodies, situations are frequently encountered when the perpetrator of the act left the scene of the accident, together with the vehicle involved in the road event. Analyzing and interpreting the traces discovered on the spot, through multiple activities, it is possible to establish a vehicle or group of vehicles, which is suspected to be related to the accident.

In such cases, the main problem is to determine the vehicle with which the accident occurred and then to identify the person who was behind the wheel at the time of impact. It should be noted that it is also a forensic examination, carried out at a date subsequent to the investigation of the place where the traffic accident occurred. It is recommended that this activity be carried out by the forensic specialist who participated in the investigation of the accident site. During this examination, all categories of traces that were discovered at the scene of the accident must be taken into account, which will be interpreted in correlation with those discovered on the suspected vehicle. Thus, on the protruding parts of it, contact traces must be sought, such as scratches, clogs, friction marks, broken or missing accessories or parts of equipment, design traces such as plastics, glass fragments or paint films, biological traces and textiles.

It must be monitored whether the equipment or accessories destroyed or damaged as a result of the accident have been replaced in the vehicle in question. Therefore, the examination will be extended to the beacon frames and the places of the position/signaling flashlights, in order to highlight the micro-marks.

This activity starts at the front bumper, continues with the license plate, radiator, windshield and wipers, bodywork, tow hooks, rear parts and vehicle infrastructure, insisting on highlighting any traces on the protruding parts of the differentials, gearbox, brakes, axles, lower parts of the engine, etc. If the vehicle in question has been partially or totally repainted, as there is the possibility of highlighting the old layer under the applied paint layer, samples of the old layer will be taken, specifying the color and the grouted portions. Given that after the accident the perpetrators wash the vehicles, it is unlikely that traces of biological nature can be discovered on the sides, namely blood, hair, organic tissue or textile fibers. However, their existence should not be excluded, especially on drums and wheel rims. In any case, such traces must be looked for on the vehicle's infrastructure, especially when the accident occurred by the victim's trampling. In the bodywork or trailer, cargo debris and packaging will be searched, of the same nature as those discovered at the scene of the accident.



The examination of the vehicle must be followed by the investigation of the areas surrounding the place where it was discovered, in order to identify the equipment, accessories or parts, broken, removed or replaced. By examining the traces discovered on this occasion and comparing them with those found at the place where the accident occurred, it can be established with certainty whether or not the vehicle in question was involved in the road event.

The human factor - drivers, pedestrians, cyclists, etc., is the main element in the production of road events, not only in terms of percentage, but also in terms of absolute importance. This is explained by the fact that, in the final analysis, road and technical aspects are involved in traffic accidents only in strict accordance with those behind the wheel, on the one hand, and the victims of the impact - pedestrians, cyclists, passengers, on the other hand. In other words, the human element in the road traffic system is more variable and unpredictable than the vehicle and road factors.

The identification and listening to witnesses of a traffic accident acquires, in this context, special valences. The special importance of this activity is also given by the fact that, most of the time, the circumstances of the accident, the vehicle involved and even the mechanism of the impact can only be established on the basis of those perceived in whole or in part by the persons who are occasionally at the place of the road event. In addition to the fact that the perception is involuntary, as a rule, eyewitnesses become aware of the accident as a result of the noise produced by the impact or as a result of the victim's cry. For this reason, the vast majority of witnesses are aware only of the consequences of the accident, being able to relate sometimes, going so far as to detail the actions or inactions of the driver and the victim, after the accident, the type, brand and possibly the license plate number of the vehicle, the number of people who were in the means of transport or the direction in which it traveled.

On the occasion of listening to eyewitnesses, it is necessary to insist on all the details, the circumstances in which they perceived certain episodes of the deed, the real possibilities they had to perceive what was reported. It is particularly important to establish what the witnesses really perceived from the circumstances of the accident and what is their share of "contribution" to the statements they make. The criminal prosecution bodies must show a lot of circumspection towards the statements of these witnesses, taking into account the objective and subjective factors that can influence the testimony: defects of the perceptual analyzers, the physical and mental state at the time of perception, the level of preparation and general culture, the life experience, the ability to correctly assess distances and time intervals, the weather and visibility conditions, the distance they were from the impact site<sup>15</sup>.

From the point of view treated, such problems arise in the case of bona fide witnesses, animated by the desire to declare the truth and to help the criminal prosecution bodies. From this, the idea arises to establish, even on the occasion of the first hearing, the witnesses of bad faith and to determine the causes of false statements, their interest in distorting the truth.

Perhaps more than in the case of other crimes, in the case of manslaughter or bodily injury as a result of traffic accidents, the hearing of this category of witnesses must be done during the on-site investigation or immediately after it. By doing so, the possibility of suggestion or self-suggestion of witnesses, of "processing" by them of what is perceived or of their corruption by the interested persons is avoided.

Judicial practice provides cases in which, in order to withdraw his complaint in the case of simple bodily injury, the injured party conditioned it on the payment of a considerable

---

<sup>15</sup> Gheorghe Buzescu, *The Place and Role of the Public Servant in the State Apparatus*, Sitech Publishing House, Craiova, 2017

amount of money, attracting some eyewitnesses to his side<sup>16</sup>. At other times, for the same material reasons, the witnesses allied themselves with the perpetrator, trying to prove his lack of guilt.

The disobedience of the witnesses immediately after the accident occurred when, under the impression of what happened and perceived, they would have related the truth finally led to statements such as: "I don't remember exactly", "It is possible...", "It could have happened like this...".

Obviously, such statements have no value for the cause, instead, they have direct implications in establishing the guilt of the persons employed in the accident. When the situation requires, the recording of witnesses' statements on magnetic tape, during the on-site investigation, is a precious help for the criminal prosecution bodies.

Both the judicial practice and the specialized literature have highlighted the advantages of recording statements on magnetic tape: - accuracy of the records; the efficiency with which the recording is made, the time-saving recording, which can be used to carry out other urgent activities required by the on-site investigation: the first investigations, taking measures to follow and catch the perpetrator; constitutes an element of comparison in the case of subsequent drafts.

With regard to the injured party, his statements may shed light on various factual elements, such as to serve as evidence in the case: the person of the perpetrator, the manner of committing and the circumstances of the commission of the crime, the consequences produced.

The listening of the accident victim must be directed to clarify the following problems: - the quality he had in road traffic - traveler, pedestrian, cyclist, etc.; the place where he was or the place where he crossed, engaged in the crossing - at normal pace or in flight; the actions it has taken to avoid the impact; the vehicle that injured it - its type, make, color, license plate number; the actions or inactions of the driver, both before and after the accident - the direction in which he moved to leave the scene of the crime; the state of health after the accident and the medico-legal documents that attest to it; whether the civil party is constituted in the lawsuit and the amount of the requested compensations.

In obtaining valuable information for the case, urgent, summary listening - if possible even on the spot, with the recording of the statement on magnetic tape, is special especially when there is a danger that the injured persons will die from life.

The order of the expertise of the state of alcohol intoxication is required when there are suspicions regarding the fact that the author of the accident was under the influence of alcoholic beverages at the time of impact, and it is necessary to drive him, urgently for the collection of biological samples and clinical examination, in order to establish the blood alcohol level. The expertise of the state of alcohol intoxication is the only way to prove that the perpetrator drove the vehicle with an alcohol content above the legal limit and has as its object the following issues: - whether the perpetrator consumed alcoholic beverages; the amount of alcohol ingested and the time elapsed from ingestion to the moment of accident; the degree of alcohol and the existence of manifestations specific to the state of intoxication.

In the activity of the criminal prosecution bodies, there are frequently situations when the question arises of interpreting the extent to which the state of alcoholic influence is the main cause of the occurrence of the investigated event<sup>17</sup>. Since in the vast majority of cases it is requested to assess the blood alcohol level based on calculation, in relation to the amount of drink ingested, it should be noted that the absorption of alcohol is influenced by factors such

---

<sup>16</sup> Gh. Mateuț, *Criminal Procedural Law. General part. Vol. II*, Lumina Lex, Bucharest, 1997

<sup>17</sup> Gheorghe Buzescu, *Elements of Public Order*, Pro Universitaria Publishing House, Bucharest, 2016

as: the alcohol concentration of the drink, the time of ingestion, the presence or absence of food in the stomach, the individual factor, such as: gender, age, nature of alcoholic beverages or state of stress. These data must be taken into account on the occasion of the hearing of the perpetrator on the spot or immediately afterwards and of the witnesses.

When the perpetrator of the act has left the scene of the accident without the consent of the police, measures must be taken to identify, track and catch him<sup>18</sup>. To this end, the results of the on-site investigation, the data provided by eyewitnesses and injured persons play a special role. As it is necessary to identify the vehicle with which the accident occurred in order to reach the perpetrator, all suspected vehicles must be checked, regardless of their owners. In the first emergency, the check will be carried out on the vehicles in the area where the accident occurred, then continuing with the neighboring areas, located in the direction where it disappeared.

In all cases, after the on-site investigation, the necessary measures must be taken to remove the consequences of the impact. Once the vehicle is removed from the roadway, the traffic artery will be returned to road traffic, in conditions of maximum safety, and the restoration of the guardrails, the installation of road signs, the removal of all obstacles or the repair of bridges, will be carried out by the responsible factors. At the same time, the criminal investigation bodies have the obligation to take measures for the preservation and insurance of the vehicle involved in the accident. If possible, the vehicle will be taken to the headquarters of the police and sealed, with a report being drawn up, or it can be left in the custody of a person, according to the known rules. Whichever way is chosen, the measure is necessary for the following reasons: it removes the possibility for the interested persons to resort to replacing some parts, or subassemblies, in order to subsequently invoke the fortuitous event, it offers the guarantee of the objectivity of the conclusions of the automotive technical expertise that will be subsequently ordered in the case, it prevents possible theft from the vehicle, with all the consequences arising from such a situation<sup>19</sup>.

The subsequent activities undertaken by the criminal investigation bodies are: Planning investigations; Ordering the medico-legal finding and technical-scientific findings or forensic expertise; Listening to witnesses; Hearing the accused or defendants; Arranging the automotive technical expertise; Reconstitution.

In the case of manslaughter and bodily injury due to negligence, the clarification of all problems and the carrying out of specific activities in order to administer evidence can only be ensured by judicious planning.

Analyzing the results obtained during the on-site investigation, the examination of the vehicle that is alleged to have been involved in the accident, the interpretation, the traces discovered and the other measures taken, the criminal investigation bodies elaborate versions regarding the various circumstances of the case, in the situation in which the perpetrator of the act remained on the spot, the area of versions is much more restricted, being limited, most of the time, to those regarding the mechanism of production and the cause of the accident. The issue is quite different if the perpetrator left the scene of the accident, abandoning the vehicle and, especially when both the driver and the vehicle involved left the scene of the act, in the latter situation it is necessary to develop various versions, priority being those referring to the perpetrator of the crime and the vehicle engaged in the road event.

Thus, versions such as: - the perpetrator of the deed could be a driver who resides or resides in the area where the accident occurred or adjacent to it; The author of the accident could

---

<sup>18</sup> C.Turianu, *Traffic Offences*, All Beck Publishing House, Bucharest, 2000

<sup>19</sup> C.Turianu, *Traffic Offences*, All Beck Publishing House, Bucharest, 2000

be a driver who works at one of the units located on the respective traffic artery or surroundings; the perpetrator of the crime could be a person who resides, works or is in transit to the neighboring localities located on the direction of movement of the vehicle; The vehicle involved in the accident was stolen from the parking space.

Other versions that can be elaborated refer to: - the form of guilt - the exclusive fault of the driver, the exclusive fault of the victim or the common fault; the circumstances, mechanism and causes of the accident; the state and behavior of road traffic participants.

The planning of the investigation and its materialization in a planning document - criminal investigation plan or investigation sheet ensures the staking of the activities in a chronological order and the absence of any aspect related to the case<sup>20</sup>.

The main criterion for delimiting the negligent bodily injury, in simple form, from the aggravated one is the period of medical care necessary for healing. Therefore, in assessing the socio-legal gravity of this antisocial act, the main criteria are of a medical nature. The medico-legal finding is called upon to respond to the following problems: - the existence of injuries on the victim's body; the nature of the lesions produced and the mechanism of their formation; the date of injury; the number of days of medical care needed for healing; if as a result of the injuries caused to the person a permanent disability, loss of a sense or organ or its functions.

If the death of any person occurred as a result of the accident, the forensic finding will clarify: - the nature and cause of death; the mechanism of its production and the date of installation.

The types of technical-scientific findings or forensic expertise that can be ordered in the case of investigation of these crimes differ from case to case, in relation to the nature of the traces and material means of evidence discovered during the investigation of the accident site or the examination of the vehicle suspected of having been engaged in the impact.

Among the technical-scientific findings or the most frequently encountered expertises, I mention: a) the technical-scientific finding or the traceological expertise; b) the technical-scientific finding or chemical expertise; c) the technical-scientific finding or the bioforensic expertise; d) the technical-scientific finding or the dactyloscopic expertise.

a) The technical-scientific finding or the traceological expertise can solve the following problems: what is the mechanism of formation of the trace, the type of vehicle that created the trace, the wheelbase and gauge of the vehicle, the direction of travel of the means of transport, the type of vehicle from which the fragments of headlight glass, windshield, glass, and paint films discovered on the spot originate, whether or not the traces were created by the vehicle made available, as a model to compare.

b) Technical-scientific finding or chemical expertise - through complex laboratory analyses, the chemical composition of the traces of headlight, windshield, paint, soil, lubricants, etc., picked up from the site can be established. At the same time, the specialist must determine whether or not the mentioned traces have the same chemical composition as the traces of the same nature discovered on the vehicle that is alleged to have been involved in the accident. This kind of finding or expertise only makes a gender identification. Therefore, its conclusions do not constitute certain evidence proving guilt, but only clues that must be corroborated with the other evidence and means of proof adduced in the case. On the other hand, during laboratory analyses, the examined traces are destroyed. For the reasons indicated, the result reached and the imminence of the destruction of the traces, in the process of examination of this kind: of technical-scientific finding or expertise must be resorted to only in exceptional cases,

---

<sup>20</sup> Gheorghe Buzescu, *Police Law - University Course*, Sitech Publishing House, Craiova, 2019

respectively when the traces discovered on the spot are unsuitable for the technical-scientific finding or the traceological expertise.

c) The technical-scientific finding or the bioforensic expertise, or the expertise of this kind, have as their object the examination of the traces of blood and histological discovered in the infrastructure or on the sides of the vehicle involved or suspected of having been involved in the accident, of the hairs, the specialists being asked to answer questions such as<sup>21</sup>: whether the traces are of blood or not; whether the blood is of human or animal nature; the blood group of the analyzed blood.

By examining the hair, it is possible to characterize this kind of trace, the matter from a morphological point of view, color, length, thickness, shape and appearance of the medullary canal, the shape of the cuticle, the color of the pigments in the cortical area, the appearance of the free end, the sex of the person from whom it comes and the establishment of the blood type.

d) The technical-scientific finding or the dactyloscopic expertise is required in the situation in which the vehicle involved in the accident has been abandoned on the spot or in other places or has been identified subsequently, the papillary traces are important in the process of identifying the perpetrators.

In the investigation of manslaughter and bodily injury committed as a result of traffic accidents, the hearing of witnesses represents the activity with a special weight<sup>22</sup>. Apart from eyewitnesses, witnesses can also be identified from among the following categories of people, such as: - passengers, pedestrians, cyclists, drivers of vehicles not involved in the accident who were traveling on the same traffic artery and observed the actions of the driver involved in the accident, before the event occurred; employees of bus bases, garages or other public or private units where the drivers guilty of causing the accident work or where the vehicles were repaired; persons who can provide data on the drivers' condition before the accident (fatigue, influence of alcohol, etc.).

With the help of these witnesses, a series of problems can be clarified, such as: - the route taken by the perpetrator at the time of the accident; the direction of travel; the way he drove the vehicle; violated traffic rules; the behavior of the perpetrator after the accident; the activities carried out by the perpetrator of the deed in order to erase the traces of the crime; the manner in which the person concerned caused the damage to the vehicle he was driving; the circumstances in which the perpetrator consumed alcoholic beverages before the accident, the assortment, the quality, the persons in whose company he consumed alcohol, the state in which he was before getting behind the wheel, the "alibis", which he tried to create in order to escape criminal liability, etc.; the condition and behavior of the accident victims.

Again, I emphasize the importance to be given to objective and subjective factors that can influence witness statements. Witnesses are often asked to assess the speed of the vehicle in the moments prior to the accident, the distance at which the victim was projected, in particular, the assessments regarding speed and distances must be viewed with great reserve.

Statements such as "excessive speed" or "high" or "speed of a bolide" are, in the vast majority of cases, exaggerated, even presuming the good faith of the person being heard, in such situations it is necessary to ask the witness to specify the criteria he took into account when assessing the speed and distances. An important condition for obtaining testimony useful to the case from the point of view of the accuracy and detail of what has been reported, is that the

---

<sup>21</sup> Em. Stancu, *Treatise on Forensics*, fourth ed., Universul juridic Publishing House, Bucharest, 2007

<sup>22</sup> R. Constantin, P. Drăghici, M. Ioniță, *Expertizele mijloc de probă în procesul penal*, Ed. Tehnica, Bucharest, 2000



hearing of all witnesses should be taken by a single worker. He must be well aware of the situation on the spot, the other evidence administered, to be able to assess the accuracy and sincerity of the reports and to intervene with useful questions to clarify the problems requested of the witnesses<sup>23</sup>.

Together with the factual circumstances in which the accident occurred, established on the basis of the findings made during the on-site investigation, the hearing of witnesses, injured persons, the hearing of the accused or defendants, it can contribute decisively to the complete clarification of the mechanism and causes of the accident, of the responsibility for its occurrence. The problems that obedience must clarify differ from cause to cause.

The hearing of the accused or defendants must be carried out as urgently as possible, the success being conditioned by the evidence administered so far, by the extent to which they manage to form a complete picture of what happened, by the preparation that is made in order to carry out this activity.

Regardless of the conditions and circumstances in which the accident occurred, the listening plan must aim at clarifying the following problems: - the concrete circumstances in which the accident occurred; the causes that generated its occurrence; the moment when the victim engaged in the crossing and when he noticed it, in the conditions given by visibility; the speed at which he drove on the respective section of the road; the reason why he did not comply with the meaning of the road signs imposing speed restrictions in the area or driving at a speed up to the limit of avoiding any danger; the physical condition of the driver at the time of driving the vehicle and the accident (if he was tired, sick, under the influence of alcoholic beverages); the reasons that led him to drive the vehicle in such a state; persons in whose company he consumed alcoholic beverages, the place, quantity, assortment and time of alcohol ingestion, the food consumed); the activities he undertook to avoid the accident by handling the vehicle; the actions or inactions subsequent to the occurrence of the accident; the reasons that determined him to leave the scene of the crime without the consent of the police and to abandon the vehicle involved in the accident; the activities he undertook in order to erase the traces of the crime; persons who still know details about the deed committed and the circumstances in which they became aware of it.

The provision of the automotive technical expertise is of very special importance, with its help it is possible to elucidate the problems related to the mechanism of the accident, in general, or some aspects of it, in particular<sup>24</sup>.

The categories of problems faced by the automotive technical expertise can be grouped as follows:

a) problems regarding the technical condition of the vehicle; In this respect, the automotive technical expert is asked to elucidate the following: - the existence or non-existence of technical defects and, if so, their nature; the date of occurrence of the technical malfunctions found; the causes due to which the technical malfunctions occurred; the causal link between the technical malfunctions of the vehicle involved in the accident and the consequences produced; the possibility of foreseeing these defects in advance by the persons responsible for the technical condition of the vehicle; if the defects could be detected by simply operating the vehicle or only by dismantling the parts, mechanisms or subassemblies;

<sup>23</sup> R. Constantin, P. Drăghici, M. Ioniță, *Expertizele mijloc de probă în processo penal*, Ed.Tehnica, Bucharest, 2000

<sup>24</sup> R. Constantin, P. Drăghici, M. Ioniță, *Expertizele mijloc de probă în processo penal*, Ed.Tehnica, Bucharest, 2000

b) problems related to the circumstances in which the accident occurred; In order to clarify these problems, the automotive technical expert will be asked to answer the following:

- the speed at which the vehicle circulated before braking in relation to the characteristics and condition of the public road, as well as to the weather and visibility conditions; the speed of the vehicle at the time of impact; the time required for the brakes to come into operation; the reaction time necessary to perceive the danger of accident, in the given situation; the technical causes that caused the vehicle to overturn on the roadway with a certain inclination, humidity and angle of turn and speed at which it had to circulate in order to avoid skidding or overturning.

The tests on the basis of which the speed of a vehicle can be determined are: the length of the braking track, the free driving distance, the driving distance with the engine brake, the kinetic energy consumed for the displacement or deformation of the colliding masses, the projection distance of some objects coming from the vehicle and the space for scattering the fragments resulting from the breakage of the windshield. According to some opinions, this activity is the exclusive attribute of the automotive technical expert and, therefore, the knowledge of the calculation formulas is not necessary for the criminal prosecution bodies;

- c) problems related to the behavior of traffic participants involved in the road event;
- d) problems related to the assessment of damages.

The role and place of re-enactment in the event of manslaughter or bodily injury committed as a result of non-compliance with the rules on traffic on public roads can be properly defined only under the conditions of a correct representation of its purpose. Both the specialized literature and the judicial practice admit that the purpose of reconstitution in the investigation of such cases is to verify and illustrate the evidence administered during the investigation, and less that of administering new evidence in the case.

As a rule, when resorting to reconstruction, the aim is not to verify and specify aspects regarding the mechanism of the accident or the possibilities of avoiding it, under the given conditions, but to establish the possibility of perceiving circumstances related to the investigated road event. It is also natural to be so, as long as the problems related to the mechanism of the accident, the speed of the vehicle before and during the impact, can, and it is advisable to be clarified by the automotive technical expertise.

Therefore, the main weight is held by the reconstructions made to establish the possibility of observation, perception, memorization or reproduction of a fact or phenomenon. As traffic accidents are fast-moving events, the possibility of perceiving and fixing them in memory is reduced. Such reconstructions offer the possibility of verifying the statements of witnesses and the injured party. At other times, reconstruction can be used to highlight the route taken by the perpetrator after committing the crime, the place where he abandoned the vehicle or where he stopped to erase the traces of the crime.

In conclusion, it should be noted that it is forbidden to carry out the reenactment if the life, bodily integrity or health of the participants in this activity may be endangered through the reproductions to be pursued, and, in no case, may facts and circumstances such as skidding, hard or extreme braking, overturning, high-speed traffic (at night, fog, on a road covered with mud, slush, etc.), driving at night, at high speed and without a signaling lighting system, collision between two or more motor vehicles or road disasters, driving on an unconsolidated bridge or on rough terrain, in order to check the resistance of the vehicle or the driver's skill.

### **BIBLIOGRAPHY:**

- IVAN ANANE, *Elements of Criminal Procedural Law*, Pro Universitaria Publishing House, Bucharest, 2015;
- IVAN ANANE, *Road Legislation*, Pro Universitaria Publishing House, Bucharest, 2014;
- IVAN ANANE, *The Investigation of the Criminal Prosecution Bodies*, Pro Universitaria Publishing House, Bucharest, 2014;
- Bercheșan V., *Research on the Main Spot as a Means of Proof in the Criminal Process*, Little Star Publishing House, Bucharest, 2006;
- Gheorghe Buzescu, *Elements of Public Order*, Pro Universitaria Publishing House, Bucharest, 2016;
- GHEORGHE BUZESCU, *Police Law - University Course*, Sitech Publishing House, Craiova, 2019;
- GHEORGHE BUZESCU, *Rules of Police Theory and Practice*, Pro Universitaria Publishing House, Bucharest, 2016;
- Gheorghe Buzescu, *The Place and Role of the Public Servant in the State Apparatus*, Sitech Publishing House, Craiova, 2017;
- C. AIONIȚOAI, *The Tactics of On-Site Research, in Forensic Course*. Annex. Police Academy "Al.I. Cuza", Bucharest, 1983;
- E. STANCU, *Treatise on Forensics, fourth ed.*, Universul Juridic Publishing House, Bucharest, 2007;
- GH. MATEUȚ, *Criminal Procedural Law. General part. II*, Lumina Lex Publishing House, Bucharest, 1997;
- I. MIRCEA, *Forensics*, Didactic and Pedagogical Publishing House, Bucharest, 1978;
- IONESCU L., SANDU D., *Forensic Identification*, Scientific Publishing House, Bucharest, 2000;
- IVĂNESCU, GH. DINU, *National and International Road Transports*, Road Transport Publishing House, Bucharest, 2000;
- L. CARJAN, *Treatise on Forensics*, Pinguin Book Publishing House, Bucharest, 2005;
- L. COMAN, M. CONSTANTINESCU, in *Practical Treatise on Forensics, vol. I*, Ministry of Interior, Bucharest, 2012;
- R. CONSTANTIN, P. DRĂGHICI, M. IONIȚĂ, *Expertizele mijloc de probă în proceso penal*, Ed. Tehnică, Bucharest, 2000;
- SUCIU C., *Forensics*, Didactic and Pedagogical Publishing House, Bucharest, 1972;
- V. BERCHEȘAN, C.PLETEA, I.E.SANDU, *Research on the spot, in Treatise on Forensic Tactics*, Ed. Carpați, Craiova, 1992;
- V. BERCHEȘAN, *Valorificarea științifică a trasee infractiuni. Forensic Technique Course*, vol. I, Little Star Publishing House, Bucharest, 2002.
- V. DONGOROZ, *Theoretical Explanations of the Romanian Penal Code, vol I, general part*, Romanian Academy Publishing House, Bucharest, 1975;