

# Crime Investigation: The Scientific Method of Alfredo Niceforo

Anatolii Starushkevych \*

\* PhD in Law, Docent, Kyiv Scientific Research Institute of Forensic Expertise, Kyiv, Ukraine,  
ORCID: <https://orcid.org/0000-0001-7659-6646>, e-mail: [anatolii.starushkevych@kndise.gov.ua](mailto:anatolii.starushkevych@kndise.gov.ua)

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*The research purpose is a scientific analysis of the role of crime investigation method developed by A. Niceforo in of forensic science formation about the methods of investigating criminal offenses and forensic methods as a component of modern criminalistics. For achieving the goal, the methods of scientific knowledge are applied: observation, comparison, abstraction, analysis, synthesis, modeling, etc. The construction of A. Niceforo's method involves general scientific methods and techniques (proposing hypotheses, graph method, analysis, synthesis, deduction, induction, analogy), comprehensive approach, systematicity, phasing, knowledge of psychology. The professional and psychological qualities of a person (investigator), which are required for implementation of the analyzed method, are noted: intelligence, observation, the ability to apply logical techniques and operations in practice (induction, deduction, analysis, hypothesizing, etc.), intellectual development, and experience. A. Niceforo's method of putting forward hypotheses successfully borrowed from the fundamental sciences is a prototype of the modern versioning method (method of putting forward and checking versions). A. Niceforo rejected techniques that could cause any kind of suffering to the subject: sleep deprivation, use of psychotropic drugs and/or moral abuse, interrogation under hypnosis. It is substantiated that the method of investigating crimes according to A. Niceforo became an important step for forensic science formation about the methods of investigating criminal offenses and the theoretical foundations of modern criminalistic methods.*

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### Research Problem Formulation

The most successful and deepest are scientific researches, formation and development which studied topic of is analyzed taking into account the general historical and cultural contexts <sup>1</sup>.

Actively apply scientific methods to investigation of crimes began in the second half of the XIX century: before that, the issue of such cases was solved mainly by abstract logical reflections or formal technical descriptions within the framework of investigative record keeping.

During this period, development of capitalist social relations, sometimes quite intense, led to an increase in crime in general and professional in particular, which led to corresponding need for new ways to its counteraction.

In leading European countries in the last two decades of the XIX century, this negative trend led to the need to rationalize investigative activities, use in investigation of new achievements of the sciences, in particular natural sciences. Scientists and practitioners developed new methods of registration and identification of criminals. Along with forensic medical examination which has traditionally been used to investigate crimes, other types of research have become widespread, in particular chemical and photographic (for example, forensic handwriting analysis and questioned document examination) <sup>2</sup>.

Thus, in order to commit crime scene situation and study material objects, photography was increasingly used. New opportunities in research on traces of criminal activity appeared with the use of ultraviolet and later infrared rays <sup>3</sup>.

- 1 Старушкевич А. В. Історична періодизація (історико-хронологічний аспект) «методів розслідування» кримінальних правопорушень. *Криміналістика і судова експертиза*. 2021. Вип. 66. С. 313. DOI: [10.33994/kndise.2021.66.30](https://doi.org/10.33994/kndise.2021.66.30) (date accessed: 05.01.2023).
- 2 Комаха В. А., Комаха В. В. Предпосылки создания первых отечественных криминалистических учреждений. *Вопросы криминологии, криминалистики и судебной экспертизы*. 2007. № 2 (22). С. 83–88.
- 3 Bertillon A. La Photographie Judiciaire. Paris, 1890. 115 p. ; Idem. La Photographie Judiciaire de la prefecture de Police. *La Nature*. 1913. An. 41. N 2086. Pp. 393–397 ; Idem. Sur le fonctionnement du service d'identification par les signalements anthropometriques donnée le 22 novembre 1885. *Actes du Congres pénitentiaire international de Rom*. Novembre 1885. Rome, 1887. Vol. 1. Pp. 687–705 ; Paul F. Handbuch der kriminalistischen Photographie für Beamte der Gerichte, der Staatsanwaltschaften und der Sicherheitsbehörden. Berlin, 1900. 128 s. ; Reiss R. A. Die Entwicklung der Photographischen Bromsilbertrockenplatte und die Entwickler. (Encyklopädie der Photographie, Heft 39). Halle, 1902. 156 s. et al.

The procedure of investigating crimes was rationalized, structure of the bodies that carrying out such an investigation was optimized: it became more centralized and specialized.

From the end of the 19th century, criminology as a science began to take shape at an extremely fast pace. In 1912, O. H. Freinat editor of the *Police Herald* publishing house wrote in the preface to one of the guides on the investigation of crimes: *Crime detection, that many still tend to look at as a craft that requires only certain experience and the ability to draw up protocols, and others - as an art that depends on the abilities of individuals, in fact it is an independent science that requires serious training, a lot of theoretical and practical knowledge, an accurate methodical study of facts* <sup>4</sup> In the preface to this edition, its author A. Weingart noted: “Investigation of every crime, especially in important cases, should be conducted using a certain method, systematically and according to the project” <sup>5</sup>.

It was these prerequisites that developed in the leading countries of Western Europe at the turn of the 19th and 20th centuries that contributed to the creation by Alfredo Niceforo (1876–1960) of scientific method of crime investigating <sup>6</sup>, that became a significant step in development of theoretical method foundations of investigating criminal offenses as the final section of modern criminalistics.

### Analysis of Essential Researches and Publications

Immediately after publication of research papers recommending the use of A. Niceforo's scientific approaches to crime investigation at the beginning of the last century in Russian Empire, a number of publications were published where these recommendations, in particular the scientific investigation method itself, received highest scientific evaluation. Thus, in one of the manuals of 1909, the well-known leader and reformer of the imperial investigation according to the Western model, V. I. Lebediev, wrote: “Application beginning of scientific methods in judicial and police practice was laid already a whole century ago, but only at the end of 19th century, thanks to research papers of outstanding forensic scientists (Ha. Gross, A. Lacassagne, A. Bertillon, R. A. Reiss, A. Niceforo, etc.) those science based methods of judicial and police investigation that currently constitute an auxiliary part of criminal law science, were widely used, named by Professor Ha. Gross forensic science, and by professors R. A. Rice and A. Niceforo: scientific police. The task of this new science — scientific police, as defined by Professors Rice and Niceforo — consists in application of scientific knowledge to criminal investigation and inquiry” <sup>7</sup>.

Subsequently, on former Soviet Union territory of the scientific method of investigation according to A. Niceforo was most actively discussed in the 1920s and

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4 Вейнгартъ А. Уголовная тактика. Руководство къ разслѣдованію преступленій / пер. съ нѣм. Санктъ-Петербургъ, 1912. С. III.

5 Ibid. С. V.

6 Шепітько М. В. Нічефоро Альфредо / Велика українська юридична енциклопедія : у 20 т. Т. 20: Криміналістика, судова експертиза, юридична психологія / редкол.: В. Ю. Шепітько (голова) та ін. Харків, 2018. С. 509–510.

7 Лебедевъ В. И. Искусство раскрытія преступленій. I. Дактилоскопія (Пальцепечатаніе). Регистрація и установка личности преступниковъ при помощи оттисковъ кожныхъ линій пальцевъ рукъ. Дактилоскопическій методъ въ разслѣдованіи преступленій. Санктъ-Петербургъ, 1909. С. XIII.

1930s. Thus, in 1929, critically evaluating this method, I. M. Yakymov wrote: “Niceforo method, to the detriment of purely material investigation methods puts forward the psychology of the investigative process, giving excessive importance to the study of the motive and purpose of the crime (logic of the process) and the identity of the criminal (psychology process)”<sup>8</sup>, at the same time the critic himself noted the significant scientific achievements of this method developer of , in particular noting that A. Niceforo had every right to call his book (where the method is described for the first time) *Scientific investigation*<sup>9</sup>.

In one of the first collective Soviet textbooks on criminalistics (1935), a brief review of the “Niceforo scheme” completed with the conclusion that it is “completely unacceptable for Soviet criminalistics”<sup>10</sup>.

In the 1938 Soviet textbook on criminalistics, critics of the scientific method of investigation according to A. Niceforo complained: “He tried to build an investigation scheme, based mostly on the principles of the anthropological school of criminal law, shifted the center of gravity to medical and psychological studies of the criminal, to observing his behavior in various environment”<sup>11</sup>. Further criticism of A. Niceforo’s method in this edition is politically colored, with characteristic Bolshevik rhetoric: “All these schemes belong to the development period of bourgeois forensics, when the aggravation of class contradictions in bourgeois society forced the

bourgeoisie to look for new, more effective means to fight its class enemies. Therefore, a characteristic feature of all these schemes is along with their apparent apoliticism, a deeply reactionary essence. None of the <...> authors directly talks about dependence of investigation tactics and methods on the political significance of the case. However, they all build their schemes in such a way as to ensure a real increase in repression”<sup>12</sup>. We will remind: this, in our opinion, completely biased criticism was made during the years of total repression in the Soviet Union.

Over time, the rhetoric in textbooks on criminalistics (1939) regarding the reactionary schemes of investigation proposed by “Western bourgeois criminologists”, in particular A. Niceforo only intensified: “Deriving “regularities” of revealing the mystery of a crime, bourgeois scientists replace effective methods of investigating crimes with “natural laws”, or “laws” of formal logic, using which it is possible to solve any crime. The desire of bourgeois criminologists to generalize consists in an attempt to find a universal key that could be used to open the secret of any crime. In this regard, the works of the most reactionary forensic scientists: Ferri, Ottolenghi, Niceforo, Anushat, Helwig, and Schneikert are characteristic ones”<sup>13</sup>. In subsequent Soviet educational, practical and scientific publications on criminalistics, the investigation method according to A. Niceforo was not analyzed or even mentioned.

8 Якимов И. Н. Криминалистика. Уголовная тактика. Москва, 1929. С. 161.

9 Ibid. С. 157.

10 Бобров Н. А., Винберг А. И., Голунский С. А., Громов В. И., Зицер Е. У. и др. Криминалистика. Книга 1. Техника и тактика расследования преступлений : учебник / под ред. А. Я. Вышинского. Москва, 1935. С. 131–132.

11 Голунский С. А. Планирование расследования / Бобров Н. А., Винберг А. И., Голунский С. А., Громов В. И., Зицер Е. У. и др. Криминалистика. Техника и тактика расследования преступлений / под ред. А. Я. Вышинского. Москва, 1938. С. 333.

12 Ibid.

13 Голунский С. А., Шавер Б. М. Криминалистика. Методика расследования отдельных видов преступлений / под ред. А. Я. Вышинского. Москва, 1939. С. 5.

In modern criminalistics, A. Niceforo's method<sup>14</sup>, has not been subjected to a detailed analysis up to now: scientists only state that I. M. Yakymov developed his investigation method by analogy with the method of A. Niceforo and the non-constructive criticism of general investigation method of A. Niceforo at the time is explained by "*well-known political the regime in the country, which actually caused the negative attitude of Soviet criminologists to any position of Western criminologists*"<sup>15</sup>.

### Article Purpose

Carry out a scientific analysis of the method role of investigating crimes, developed by A. Niceforo at the beginning of the 20th century, while formation of forensic doctrine on the methods of investigating criminal offenses and in general forensic methods as a component of modern criminalistics.

### Research methods

Scientific knowledge: observation, comparison, abstraction, analysis, synthesis, modeling, etc.

### Main Content Presentation

Starting the scientific analysis of the method of investigation of crimes according to A. Niceforo, we note: it is most thoroughly described in the French-language, qualitatively illustrated with photo documents (from the judicial identification services of Paris, Berlin, Dresden and Lausanne), published by the

author: *La Police et l'Enquête Judiciaire Scientifiques*<sup>16</sup>, published in print 1907. The *scientific* definition in the title, in our opinion, indicated that basis of the research paper was general scientific method of proposing hypotheses, logical techniques common in science at that time (analysis, synthesis, induction and deduction), as well as graph method (definition and notation relationships between individual facts with straight lines, brackets, arrows, etc.). Introduction of these general scientific methods and techniques into the theory and practice of crime investigation is due to the fact that A. Niceforo himself, in addition to jurisprudence, was quite well versed in statistics, sociology and psychology, which he taught at the universities of Lausanne (Switzerland), Naples and Rome (Italy).

Essence of A. Niceforo's investigation method was significantly influenced by his scientific beliefs in psychology. He was a supporter of psychoanalysis: he believed that every person has a "deep *ego*" that produces asocial, subconscious impulses that push a person to commit a crime. Contrary to this, the "higher *ego*" formed by a person's social interaction keeps him from committing a crime. However, sometimes the impulses of the "deep *ego*" break through, causing a person to commit criminal acts.

Contrary to Cesare Lombroso's concept of the of a "criminal type" existence characterized by specific physical characteristics, A. Niceforo believed that crime can be understood by jointly examining biological, psychological and sociological aspects of an ordinary person.

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14 Аверьянова Т. В., Белкин Р. С., Корухов Ю. Г., Россинская Е. Р. Криминалистика : учебник / под ред. Р. С. Белкина. Москва, 2006. С. 685 ; Белкин Р. С. Курс криминалистики : учеб. пособ. Москва, 2001. С. 18, 200 ; Шмонин А. В. Методология криминалистической методики : монография. Москва, 2010. С. 30—31.

15 Ibid. С. 41.

16 Niceforo A. *La Police et l'Enquête Judiciaire Scientifiques*. Paris, 1907. 445 p.



Using individual sociological techniques as the fundamental principles of the scientific investigation method, A. Niceforo became one of the first empirical sociologists in Italy, since he applied statistics to solve the issues of finding regularities in social behavior <sup>17</sup>.

Essence of A. Niceforo's scientific investigation method described in a separate section: *Method of legal investigation* of the aforementioned publication <sup>18</sup>. The author described the method itself as a certain logical process, which stages coincide with the periods of crime investigation. According to the idea of A. Niceforo, for crime investigation, it is advisable to perform certain actions within three consecutive stages: 1) data (facts) collection, 2) data study and us, 3) alleged culprit examination.

At the first stage data collection (facts), investigator should:

- 1) investigate: a) crime scene, b) corpse, c) objects (physical evidence). A. Niceforo noted that, depicting the behavior of investigator at the scene, *"we need to describe in more detail logical process that investigator should use to collect and study facts, classify them, determine their value, establish connections that connect them to each other with one to consistently move to the search for causes and, as a result, <...> to the final solution of the problem"* <sup>19</sup>;
- 2) interrogate: a) witnesses, eyewitnesses of the crime, b) preparation witnesses for the crime, c) witnesses who knew the crime victim, and generally all persons involved in the crime.

The second stage of studying and using data involves their classification by investigation: 1) enumeration, 2) distribution into main and secondary. While this procedure, it is worth using such logical techniques as analysis, synthesis, induction and deduction. According to A. Niceforo, *"analysis and synthesis, induction and deduction are used for the purpose of complete reconstruction of a criminal act"*.

Along with the integration and disintegration of collected facts (sometimes immediately after these procedures), method of general hypotheses is used (characteristic of purely experimental sciences: mineralogy, sociology, biology) covering all facts in general (in addition, the use of the method of general hypotheses involves experimentation or research).

According to A. Niceforo, while crime investigation, *"logical and natural order of scientific operations"* similar to scientific knowledge is used, so the investigator should possess such qualities as *cleverness of mind, intelligence, experience*, as well as skill operation of observation, induction, deduction, analysis and synthesis, ability to build hypotheses, thinking experience and control <sup>20</sup>.

Therefore, the task of the second stage of crime investigation is *"creating and testing hypotheses"*, carried out by: a) association of ideas; b) analogies with other crimes.

In order to analyze the facts regarding a certain hypothesis, A. Niceforo suggests using a graphic method (that he calls *Principium Divisionis*, translated from

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17 Alfredo Niceforo. Encyclopaedia Britannica. URL: <https://www.britannica.com/biography/Alfredo-Niceforo> (date accessed: 05.12.2022).

18 Niceforo A. La Police ... . P. 397—410.

19 Ibid. P. 397.

20 Ibid. P. 403—404.

the Latin: *division principle*), when researcher depicts the facts on a sheet of paper, connecting them with lines, arrows or curly brackets that indicate relationships, existing or should exist between them. Such an analysis is carried out before the arrest (interrogation) of the allegedly guilty person (suspect of crime committing)<sup>21</sup>.

A. Niceforo believed that hypotheses should be revised while consistent process. Each such hypothesis is formed as a certain center which numerous facts are placed around. For each change in the hypothesis, groups of facts change positions and it is these successive changes (movement) of facts around hypothesis contributing to the discovery of new facts. A similar process occurs in the sciences, for example, in statistics<sup>22</sup>.

Every mental operation with hypothesis should be checked using precautions: a) avoidance of biased opinions, b) skepticism.

The second stage is completed with a check carried out by: a) experiments, b) observation of facts, c) review of collected data.

A. Niceforo constantly emphasizes: in order to arrive at the truth during an investigation, it is advisable for the investigator to follow the same research logical procedure as a biologist, chemist or statistician for their scientific discoveries<sup>23</sup>.

The *third examination stage of the alleged culprit* involves implementation of the following investigative, operational and organizational actions (similar to modern ones):

- 1) *research* (aims to establish the subject identity; find out whether he has a criminal record);
- 2) *examination* (presupposes an inspection of the subject's home and the subject himself);
- 3) *study of physical, spiritual and social planes of the person* (presupposes clarification of subject's physical and physiological characteristics, his sensuality, mental development, living conditions, pathological and hereditary traits);
- 4) *interrogation regarding committed crime* (check the subject testimony explaining his physical and mental condition, committed crime motives, collected data. During the suspect interrogation, A. Niceforo advised to apply knowledge of psychology, offered to allow the guilty to tell “*the facts and their circumstances*”, their “*origin and development*” revealing contradictions in his testimony. He recommended not to ask specific questions involving the answers “yes” or “no”, on the contrary: to give the interrogated “*more freedom in reasoning*”, in other words, to use a free story. Thanks to this, the latter can “*pretend to be contradictions and inconsistencies*”, but the investigator can pretend indifference to individual facts, returning to them for a profitable moment<sup>24</sup>);
- 5) *test* (involves face-to-face confrontation with a victim of crime, face-to-face confrontation with witnesses). In such a test, A. Niceforo categorically denied the use of cruel and unworthy methods, in particular anesthesia, hypnosis, moral torture);

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21 Niceforo A. La Police ... . P. 406.

22 Ibid. P. 405.

23 Ibid. P. 398.

24 Ibid. P. 407.

6) *subject observation* (on the outside, in prison, in hospital, during rest. For guilty examination, A. Niceforo allowed sphygmograph use (literally translated from Greek: *I write the pulse*), diagnostic device for non-invasive measurement blood pressure and its graphic record: he noted that this device is “sensitive to all emotions”; as well as special tests (although this method, according to his own statement, was not without reason criticized), which “provoking association of ideas” with words referring to “the very topic at the crime scene”<sup>25</sup>).

Italian scientist considered intuition a useful quality for an investigator. Thus, reflecting on hypothesis and its place in investigation, A. Niceforo came to the conclusion that there is no spontaneity in the intellectual world: the hypothesis arises from *the depth of the game of association of ideas more or less consciously, or from the conscious application of the method of analogies (in our case, knowledge of judicial processes and crimes similar to those under investigation)*<sup>26</sup>. Therefore, researcher notes that it is useful for the investigator to know a significant number of criminal cases in all details. In his opinion, guesswork and intuition only in some cases contribute to the search for truth, so investigator needs an ideal independent mind that forms hypotheses without turning them into preconceived ideas. A hypothesis needs constant doubt and further clarification both in science and in forensic research, because hypothesis “can arise from subconscious work of intellectual reactions, but it is never spontaneous”<sup>27</sup>.

As mentioned above, early Soviet criminalistics subjected A. Niceforo's

method to uncompromising criticism. Thus, in the first collective textbook on criminalistics (1935) edited by A. Ya. Vyshynskiy we read:

*“The scheme proposed by Niceforo <...> divides the entire investigation into three stages <...>. This scheme <...> to some extent reflects investigation dynamics, but these dynamics are mechanically divided into independent stages, without reflecting importance that one of them has for the other, without clarifying the impact on investigation of contradictions between individual data of the case and the result of elimination these contradictions. Niceforo's scheme, in fact, does not reflect actual investigation course. So, for example, items 1 and 2 are artificially demarcated: you cannot collect data about a crime without having a certain hypothesis, and the hypothesis, for its part, follows from some existing data.*

*Each of three stages is divided into smaller subdivisions in Niceforo. Some of them are clearly marked by the influence of the anthropological school of criminal law. For example, in the third stage of the investigation (examination of the probable perpetrator of the crime), Niceforo pays the main attention not to objective data research characterizing the certain person actions but to research on subjective biological properties of his personality: physical and physiological specifics, pathological and hereditary features, etc. For this, Niceforo recommends observing the behavior of this subject on the outside, in prison, in hospital, in sanatorium, check the suspect answers about the crime not only by checking their compliance with actual case circumstances, but <...> by using sub objective data — psychological analysis of crime motives, study of the physical and mental subject state, etc.”<sup>28</sup>.*

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25 Niceforo A. La Police ... .

26 Ibid. P. 404.

27 Ibid.

28 Бобров Н. А., Винберг А. И., Голунский С. А., Громов В. И., Зицер Е. У. и др. *Ор. cit.*



Regarding the injustice of certain criticisms, we should note: A. Niceforo proposed his method around 1905, and Soviet forensic scientist criticized it already in 1935; during these 30 years, in Western Europe countries, in particular Italy and France, both jurisprudence and forensic means and methods made significant steps forward. However, one of the Soviet critics of A. Niceforo's method in the 1930s, I. M. Yakymov, in his first textbook on criminalistics (1929), wrote quite another thing:

*“Development of scientific methods used in criminal procedure while crime investigation has advanced so much in the last decade that Niceforo had every right to title his book devoted to this issue: Scientific Investigation.*

*In order to understand what scientific investigation nature consists of and how this new investigation method differs from previous methods of its conducting, it is necessary to familiarize yourself with separate methods of its construction proposed by science. For this purpose, we will take, as the most developed, scientific investigation methods, proposed by Weingart, Niceforo and Anushat<sup>29</sup>.*

Indeed, critics noted that method of A. Niceforo contains stages, but it does not simply indicate each investigation stage but describes in detail what investigator should do to obtain factual data, where to collect it, how to analyze it, what tools to use for this: that is, quite practical recommendations are given regarding investigator actions. Critics of

the structure of A. Niceforo's method at various times did not advance far in their methods: in their textbooks, they proposed similar *typical investigation schemes* of murders, official and economic crimes, supplementing them with an additional stage of *typical investigation scheme after bringing the accused*”<sup>30</sup>.

As for the critical comments about “*eliminating contradictions*”; it is impossible to describe and eliminate them in abstract scheme: usually in practice contradictions are eliminated already in concrete, completely individual cases.

Criticism that “*one cannot collect data about a crime without having some hypothesis*” is partially valid: the investigator should always begin examining the scene or questioning any person with prior information about the event. If there are no eyewitnesses at the scene, but there is just a corpse, then there will be no more than two obvious hypotheses: “*natural death occurred*” either “*murder or suicide occurred*”.

As for the anthropological school of criminal law, as one of leading schools of its time, it had a significant impact on most jurists in Western countries. It was representatives of this school who proposed to study criminal as a person and developed appropriate investigative actions (examination, forensic psychology and mental state examination, etc.), operative measures (identity study and criminal suspect connections, clarification of “criminal-victim” connection, etc.)<sup>31</sup>.

29 Якимов И. Н. О. цит. С. 157.

30 Бобров Н. А., Винберг А. И., Голунский С. А., Громов В. И., Зицер Е. У. и др. О. цит. С. 140–155.

31 Гернет М. Общественные причины преступности. Социалистическое направление в науке уголовного права. Москва, 1906. С. 3–6 ; Иншаков С. М. Антропологическое направление в криминологии / Российская криминологическая энциклопедия // под общ. ред. А. И. Долговой. Москва, 2000. С. 31–36 ; Шепітько В. Ю. Антропологія кримінальна / Велика українська юридична ... Т. 20 ... Харків, 2018. С. 28.

Accusing A. Niceforo of excessive fascination with the “*subjective biological properties*” of alleged culprit, his “*physical and physiological features, pathological and hereditary traits*”, “*psychological analysis of the motives of the crime*”, Soviet critics considered these problems too “revolutionary”: these questions of the Bolshevik criminalistics began to consider only 40 years later. Let us recall at least the basics of the forensic doctrine about skills (H. O. Samoilov, 1968) <sup>32</sup>, the study of accused identity and the tactics of investigative actions (F. V. Hlazyrin, 1973) <sup>33</sup>, subjective side investigation of murders by the investigator (V. V. Yarovenko, 1979) <sup>34</sup>, determination of the motive and purpose of the crime (B. Ya. Petelin, 1979) <sup>35</sup>, clarification by the investigator of psychological nature circumstances (D. P. Kotov, 1987) <sup>36</sup>, conscious and unconscious in criminal behavior (A. F. Zelinskyi, 1986) <sup>37</sup>, motivation as an element of forensic crime characteristics (V. V. Trukhachev, 1990) <sup>38</sup> et al.

We focus on positive scientific method of crime investigation according to A. Niceforo. For the first time, general scientific methods and techniques (proposing hypotheses, graph method, analysis, synthesis, deduction, induction, analogy) were laid in the foundations of forensics, which at that time were only

beginning to be used in fundamental and applied sciences. In the method of A. Niceforo, techniques of behavioral sciences: psychology and sociology were vividly reflected: research, examination, testing, observation, inspection, study of the physical and social essence of a person, which were later transformed into modern tactical means (techniques, combinations, etc.), investigators and others procedural and organizational actions: inspection of the scene and physical evidence, interrogated person observation, his examination, etc. In addition, A. Niceforo advised to carry out such actions and measures in a complex manner: combining them into groups makes it possible to achieve the goal of a pre-trial investigation through consistent performance of assigned tactical tasks (in the modern sense). A. Niceforo's method involves a number of analytical techniques carried out by the investigator to find out the truth, at the same time, any reflections of the investigator (even using perfect analytical tools) can lead to false conclusions, so the author has provided precautions that warn against bias. In addition, it is suggested to supplement the office reflections of the investigator with field experiments, observations, review of collected facts, etc.

A. Niceforo's promising idea of using graph method to analyze the facts, which

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32 Самойлов Г. А. Основы криминалистического учения о навыках : учеб. пособ. / под ред. Р. С. Белкина Москва, 1968. 119 с.

33 Глазырин Ф. В. Изучение личности обвиняемого и тактика следственных действий : учеб. пособ. Свердловск, 1973. 156 с.

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would show the relationship between the facts. Up to now, investigators use such methods both in written form (for example, method of criminal analysis of events, actions, phone calls) and in specialized software, for example: *IBM I2 iBase Geographic Information System (GIS)*.

Another advantage is that from the beginning of the investigation, A. Niceforo recommends that investigator not only inspect the scene itself, corpse or objects present there, but carry out certain logical operations (logical process) that consist in collecting, studying, classifying, determining value of facts, establishing connections and sequences between them (cause-effect) in order to find out what exactly happened at the scene, in other words, actually find out the event image.

It is extremely positive that A. Niceforo defined the professional and psychological qualities of person who should implement his method, investigator, including sharpness, keenness, ability to use logical techniques and operations (induction, deduction, analysis, hypothesizing, etc.), intellectual development, availability experience (probably both life and professional ones).

The method of proposing hypotheses, borrowed by A. Niceforo from fundamental sciences is a prototype of the modern versioning method (proposing and checking versions). The researcher rightly noted that such versions can “*arise in the head of the investigator*” as a result of “*conscious analytical activity*” while using logic techniques, and “*subconscious activity*” as a result of the spontaneous generation of hypotheses, in other words, intuitive process.

In the method of A. Niceforo, we see the seeds of using achievements of psychology during interrogation. In fact,

he suggests using while interrogation what is called a tactical technique in modern criminalistics. During method implementation; it is recommended to set the interrogated to a free narrative; use contradictions in testimony of the interrogated; deliberately not to draw excessive attention to the circumstances that are important for investigation, etc.

A. Niceforo categorically denies the use of his method of techniques while implementation that could cause any suffering to the person subjected to the “test”: deprivation of probably guilty sleep, use of psychotropic drugs and/or moral abuse, interrogation under hypnosis. Italian researcher is wary of the use of devices that capture information about physical and emotional persons’ parameters, as well as psychological testing.

As we have already noted, it is easy to notice shortcomings of the method developed at the beginning of the last century, when there was no organized criminalistics and developed forensic theory. However, we note that the method of A. Niceforo does not differentiate the beginning crime investigation, therefore, possible investigation situations are not highlighted, so it is not surprising that method implementation began with traditional research (examination) by the investigator of crime scene, corpse and objects (material evidence).

In our opinion, A. Niceforo’s method generally looks incomplete: it seems that it is intended only for the initial stage of crime investigation (more correctly, not even *investigation*, but *disclosure*). The method analysis indicates that its purpose is to clarify initial information about event by the investigator and to establish possible involvement of a certain person in this event.

Although the method unfolds logically, sequentially and in stages, its details have not yet been finalized. Thus, connection of A. Niceforo's method with the forensic methods and tools of A. Bertillon, A. Lacassagne, R. A. Reiss (which, by the way, the author describes in detail in the edition analyzed by us), in particular dactyloscopy, verbal portrait, signal photography, bertillionage, shoeprint research, etc.

## Conclusions

Consequently, intensive development of capitalist social relations at the end of the 19th century led to a significant increase in professional, organized and transnational crime which led to the need to rationalize investigative activities using the latest scientific achievements. These factors intensified scientific development of crime investigation methods in Western Europe countries.

Advantages of A. Niceforo's method are its construction as a certain logical process, divided into stages that coincide with the periods of crime investigation, with a detailed description of actions at each stage of such an investigation.

In this method, collection, study and classification of facts, determination of their value for crime investigation combined with their division into main and secondary, using logical methods (analysis, synthesis, induction, deduction) making possible criminal event reconstruction in general.

According to A. Niceforo, method application of general hypotheses, borrowed from the basic sciences and transformed in criminalistics into versioning, while crime investigation should be combined with such important

qualities of the investigator as the speed of logical actions, intelligence, professional and life experience and intuition. While putting forward versions, it is suggested to use such general scientific methods as the association of ideas, analogies with other crimes, graph method.

A. Niceforo considers crime investigation as a certain research logical process during which the truth is found out. Therefore, versions (general hypotheses) are rightly recommended to be carefully checked for bias and to be accepted with skepticism. At the same time, it is suggested to supplement office reflections with field experiments, observations, review of collected facts, etc.

A. Niceforo advises during interrogation to use the achievements of psychology, organizational rules and tactical techniques, does not allow the use of cruelty and abuse to the interrogated, considers it appropriate to use prototypes of modern polygraphs (lie detector test) and testing for the purpose of idea association.

The proposal to use a complex approach while crime investigation is extremely rational: combining actions and measures of the investigator in a group makes possible to achieve the goal of the pre-trial investigation by consistently performing assigned tactical tasks.

A. Niceforo stood at the origins of forensic thinking, because he recommended that investigator at the scene not just inspect the place itself, the corpse or the objects present there, but mentally perform certain logical operations (logical process) that consist in collecting, studying, classifying, determining the value of facts, establishing connections and sequences between them in order to clarify the event image.

It is positive that A. Niceforo defined professional and psychological qualities of a person who should implement his method, including sharpness, keenness, ability to use logical techniques and operations, intellectual development and experience availability.

All of the above indicates that Alfredo Niceforo's holistically developed scientific method of crime investigation was the first important step in formation of forensic doctrine about crime investigation methods and theoretical foundations of modern forensic methods.

### **Розслідування злочинів: науковий метод Альфредо Нічефоро Анатолій Старушкевич**

Метою дослідження є науковий аналіз ролі методу розслідування злочинів, розробленого А. Нічефоро, у становленні криміналістичного вчення про методи розслідування кримінальних правопорушень і криміналістичної методики як складової сучасної криміналістики. Для досягнення мети застосовано методи наукового пізнання: спостереження, порівняння, абстрагування, аналіз, синтез, моделювання тощо. У побудові методу А. Нічефоро задіяно загальнонаукові методи та прийоми (висування гіпотез, метод графів, аналіз, синтез, дедукція, індукція, аналогія), комплексний підхід, системність, етапність, знання психології. Зауважено професійні та психологічні якості особи (слідчого), яких потребує реалізація аналізованого методу: кмітливість, спостережливість, вміння на практиці застосовувати логічні прийоми й операції (індукцію, дедукцію, аналіз, висування гіпотез тощо), інтелектуальна розвиненість, наявність досвіду. Вдало запозичений А. Нічефоро із фундаментальних наук прийом висування гіпотез — це прообраз сучасного методу

версерування (метод висування й перевірки версій). А. Нічефоро відкидав прийоми, які могли б завдати випробуваній особі будь-яких страждань: позбавлення сну, застосування психотропних препаратів і/або моральних знущань, допит під гіпнозом. Обґрунтовано, що метод розслідування злочинів за А. Нічефоро став важливим кроком для становлення криміналістичного вчення про методи розслідування кримінальних правопорушень і теоретичних засад сучасної криміналістичної методики.

**Ключові слова:** метод пізнання у криміналістиці; метод розслідування; науковий метод розслідування; розслідування кримінальних правопорушень; історія криміналістики; криміналістична методика; методика розслідування злочинів; гіпноз у криміналістиці; метод версерування; Альфредо Нічефоро.

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### **Declaration of Competing Interest**

Author declare no conflict of interest.

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