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INTEGRATION OF CRIMINALISTICS INTO EUROPEAN LEGAL EDUCATION

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REZUMAT

Integrarea criminalisticii în educația juridică europeană

Relevanța studiului. Integrarea criminalisticii în educația juridică este esențială pentru pregătirea juriștilor capabili să lucreze în condițiile juridice moderne.

Scopul studiului – analizarea modelelor și abordărilor actuale privind predarea criminalisticii în Europa.

Materiale și metode. Au fost utilizate publicații despre criminalistică, planuri de învățământ din universitățile europene și acte normative. A fost realizată o analiză comparativă a programelor educaționale pentru a identifica tendințele moderne în predarea criminalisticii.

Rezultate. Au fost identificate diferențe semnificative în abordările privind predarea criminalisticii, de la cursuri obligatorii la module opționale. În unele țări, criminalistica ocupă un loc central în educația juridică, în timp ce în altele este prezentată ca parte a dreptului penal sau a criminologiei. De asemenea, s-a remarcat necesitatea unei utilizări mai largi a activităților practice și a tehnologiilor moderne în procesul educațional.

Concluzii. Pentru îmbunătățirea predării criminalisticii în Europa, se recomandă întărirea abordării interdisciplinare, creșterea componentei practice și dezvoltarea cooperării internaționale. Aceste măsuri sunt necesare pentru îmbunătățirea calității educației juridice și consolidarea sistemului de justiție.

Cuvinte cheie: criminalistică, integrarea, educația juridică europeană.

Introduction

Modern European legal education is faced with the need to integrate various disciplines in order to provide a comprehensive education for professionals who are able to work effectively in the context of rapidly changing criminal and legal realities. One such discipline that is becoming increasingly important in the context of legal education is forensic science. As a science concerned with the methods of detecting crime and establishing the truth in criminal cases, forensics plays a key role in shaping the skills and competencies of future lawyers, particularly those who will work in the field of criminal law and law enforcement [30].

Forensic science plays an important role in the training of future lawyers, particularly in those countries where the discipline has developed historically and is widely recognised. However, despite the generally recognised importance of forensic science, its teaching can vary considerably across Europe.

In European law faculties, criminalistics is taught under different names and with different emphases, depending on the country and the institution. In a number of Eastern European countries, such as Poland and others, the traditional term 'criminalistics' retains its meaning and covers methods of crime investigation, analysis of physical evidence, use of forensic techniques and other key aspects of the field. At the same time, in most Western European countries, a course similar to forensic science is often taught under more general or modern names such as 'forensic science' or 'criminal investigation'. These courses may include elements of traditional forensic science, but are often integrated with other disciplines related to law, criminology and forensic science. Nevertheless, in universities, particularly in countries with a long history of forensic research, such as Germany, a course called 'Criminal Investigation' is maintained and taught as a separate discipline within legal education. In the following, we will examine how these differences play out in different European countries.

The integration of forensic science into European legal education is becoming a necessity, not only to improve the quality of professional training, but also to meet the new demands and challenges of modern justice. These include the increasing number of complex and technologically advanced crimes, the need to use new methods and technologies in crime investigation, and the ever-increasing role of forensic evidence [11].

The aim of this study is to determine the extent to which forensic science is integrated into the educational programmes of law faculties in Europe, to analyse existing models and approaches, and to identify key areas for further development and improvement of educational programmes. Particular attention will be paid to the historical context of the development of criminalistics as a science in European countries and the impact of these processes on the modern system of legal education.

Materials and methods

The study used key publications on criminalistics, curricula of law faculties of leading European universities and regulatory legal acts governing educational standards. A comparative analysis of curricula was carried out in order to identify current trends in

the teaching of criminalistics. Special attention was paid to assessing the integration of criminalistics in different educational systems.

Results and discussion

Historical context of the development of criminalistics in Europe

The development of forensic science as a scientific discipline in Europe began in the late nineteenth and early twentieth centuries. During this period, police and judicial authorities began to systematically apply scientific methods to investigate crimes. The German criminalist Wilhelm Ritter von Reiner contributed to the development of the first methods of forensic analysis, including ballistics and fingerprinting. One of the first important steps in the formation of forensic science was the publication of "Manual for Forensic Investigators as a System of Forensic Science" by Hans Gross in 1893, which laid the foundation for the formation of forensic science as an independent field of knowledge and professional activity [7, 10]. Gross proposed a systematic approach to crime investigation based on scientific methods and principles, which differed significantly from earlier, less structured approaches. His work brought together various aspects of forensic and criminological research and provided a theoretical and methodological basis for the subsequent development of the discipline [8, 11].

In Germany, criminalistics began to be actively integrated into legal education in the first half of the twentieth century. Leading universities, such as the Universities of Berlin and Munich, began to offer courses based on scientific methods of crime investigation, covering topics such as fingerprinting, ballistics and forensic document examination.

This period was marked by the significant contribution of the German and Swiss scientist Rudolf Archibald Reiss to the theory and practice of criminalistics. Considered one of the founders of modern criminalistics, he played a key role in establishing the discipline as an independent scientific discipline and developed methods that are still actively used today. R. A. Reiss founded the Institute of Criminalistics in Lausanne and pioneered the use of scientific methods to investigate crime. His work has had a significant impact on the development of forensic techniques and their integration into judicial processes [26-28].

While in Germany forensics was seen as an important part of the training of future investigators and prosecutors, in Western Europe it often remained an optional

discipline, reflecting different approaches to legal education. In France and the United Kingdom, for example, forensic science has long been less widely recognized in academic circles than in Germany, where the focus has been on traditional legal disciplines, while forensic methods have been developed in practical settings, most often in police forces and forensic laboratories [29].

However, from the mid-twentieth century onwards, under the influence of increasing globalisation and internationalisation of law, criminalistics gradually began to take a more prominent place in legal education throughout Europe. The introduction of European Union standards on forensic science and criminalistics helped to develop common approaches to teaching and research in this field. Criminalistics now occupies an important place in the curricula of many European universities, reflecting its importance for the training of qualified lawyers and law enforcement officers.

Current status of criminalistics in legal education in Europe

Current approaches to teaching criminalistics in European law schools vary considerably, reflecting the different educational traditions, legal systems and needs of individual countries. In most European countries, criminalistics is considered an important part of the training of lawyers, especially those who wish to specialise in criminal law and justice. However, the content and structure of criminalistics courses can vary considerably depending on national educational policies and academic traditions.

While Criminalistics occupies an important place in legal education throughout Europe, approaches to its teaching vary considerably from country to country, depending on the particularities of national educational systems and legal traditions. In Germany, criminal law is taught at a number of universities, including the University of Bonn [39], the Free University of Berlin [6] and the Ludwig Maximilian University of Munich [19]. Here, the course can be either a compulsory element of Master's programmes in criminal science or an elective, depending on the chosen specialisation. An important feature of the German approach is the emphasis on interdisciplinarity and practical application of knowledge.

In Poland, criminalistics is taught at leading universities such as the University of Warsaw [43] and the Jagiellonian University in Krakow [13]. At these institutions, criminalistics is included in master's programmes in law and criminology and is

compulsory or optional for students specialising in the respective fields.

In France, the course 'Criminalistics' is taught at institutions such as the University of Paris II (Panthéon-Assas) [37] and the University of Lille [36]. At Paris II, the course is compulsory for students specialising in forensic science and criminology and covers both theoretical foundations and practical aspects. In Lille, the course is often offered as an elective, with particular emphasis on the legal aspects of evidence.

In Italy, criminalistics is also offered as part of legal training at universities such as the University of Rome La Sapienza [32] and the University of Bologna [38]. At La Sapienza, the course is compulsory for criminology students and covers theory and practice, including investigative techniques and the analysis of evidence. In Bologna, the course is offered as an elective and focuses on the historical development of criminalistics.

In Spain, the Criminalistics course is taught at the Complutense University of Madrid [2], where it is included in the Master's degree in Forensic Science and is compulsory for students. The course focuses on forensic techniques and the analysis of evidence, providing both theoretical and practical training.

In the UK, criminalistics is taught at universities such as the University of Edinburgh [40] and the University of Leeds [43]. At Edinburgh, the course is a compulsory part of the criminology and forensic science programmes, while at Leeds it is offered as an elective for law students. At both universities, the course includes laboratory work and the study of the application of forensic techniques to legal proceedings.

In the Netherlands, criminalistics is taught at the University of Leiden [16]. Here it is offered as an elective for students in law and criminology programmes, with a special focus on the analysis of digital evidence and the use of modern technology in forensic science. In Sweden, at the University of Uppsala [45], the course is included in the criminology programme and taught as an elective. It focuses on international legal aspects and the use of advanced technology in forensic investigations.

Finland also maintains a high level of teaching of criminalistics in its universities. At the University of Helsinki [41], the course is offered as part of the law and criminology programmes and can be either compulsory or optional, depending on the specialisation. The practical application of forensic methods and the analysis of digital evidence play an important role in Finnish education.

Thus, the current state of criminalistics in legal education in Europe is characterised by a considerable diversity of approaches, but united by a common goal - to prepare students to use criminalistic knowledge and methods effectively in legal practice. The scope and content of the courses vary from one European university to another, but they all emphasise the importance of the discipline in training lawyers to work effectively in the criminal justice system. Given the increasing complexity and technological nature of criminal activity, the relevance of criminalistics in European legal education continues to grow, helping to better prepare professionals to work in criminal law.

The impact of internationalisation on the teaching of criminalistics

The process of internationalisation of education has had a significant impact on the teaching of criminalistics in European universities. The Bologna Process, launched in 1999, has unified curricula and created the European Higher Education Area (EHEA), where students can move freely between universities in different countries and their degrees are internationally recognised [5, 47]. This has led to a harmonisation of the content of criminalistics courses and an increase in their quality.

An important aspect of internationalisation is the development of joint training programmes. For example, the Master's programme in Criminalistics offered by the University of Leiden in the Netherlands and the University of Lausanne in Switzerland [42], offers students a unique opportunity to study criminalistics from different perspectives, including legal, scientific and interdisciplinary approaches. Students study at both universities and receive a degree from both, which significantly broadens their professional perspectives [48].

Exchange programmes, such as Erasmus+, contribute to the internationalisation of forensic education by enabling students to study and gain experience in different European countries [4]. Such programmes allow students to study forensic science in the context of different legal systems, enriching their educational experience and preparing them to work in international teams. In addition, international standards, such as those set by the European Academy of Forensic Science (EAFS) [5], influence the content of curricula and ensure that they meet global requirements [47].

Internationalisation also affects curriculum accreditation processes as universities strive to meet international standards. This requires universities to

constantly update their curricula, incorporate new disciplines and methods to meet international requirements, and adapt educational programmes to new challenges such as cybercrime and digital criminalistics [11].

In addition, internationalisation helps to promote professional networking and exchange of experience among criminalistics educators and researchers. International conferences, seminars and symposia allow teachers and researchers to share the latest scientific advances and pedagogical methods, and to discuss new challenges and trends in criminalistics. This in turn leads to improved quality of teaching and more effective training of students [29].

In this way, the internationalisation of education is having a profound impact on the teaching of criminalistics in Europe, helping to standardise curricula, promote international cooperation and improve the quality of training. This process also highlights the need to adapt educational programmes to global changes and challenges, thus ensuring that future lawyers and criminologists are trained to work effectively in an international environment.

Problems and challenges of integrating criminalistics into legal education

In some academic circles, criminalistics is still perceived as an applied discipline that does not require in-depth theoretical knowledge. This stereotypical perception may lead to an underestimation of the importance of criminalistics in legal education and limit its integration into curricula. For example, in French and Italian universities, criminalistics is often integrated into more general courses on criminal law or criminology, which may reduce the attention paid to its specific aspects, such as forensic science and methods of evidence analysis [33].

In some countries, the difficulty of integrating criminalistics into legal education has been linked to problems of curriculum accreditation. As an interdisciplinary field, criminalistics requires the inclusion of disciplines from different fields of knowledge in the curriculum, which can lead to difficulties in their assessment and accreditation. In Italy and Spain, for example, accreditation commissions often face problems in evaluating criminalistics programmes, as they have to consider both legal and scientific components [9]. This can lead to delays in accreditation or the need to revise programmes, making it difficult to integrate them into curricula.

Practical training is an important part of criminalistics education. However, many universities face a lack of resources to organise laboratory courses and to

purchase the necessary equipment and software. With limited funding, not all institutions can afford to set up specialised laboratories or collaborate with external organisations, limiting the opportunities for students to gain practical skills [20]. In Germany, where practical training has traditionally been an important part of legal education, universities often cooperate with law enforcement agencies and private laboratories to provide students with the necessary resources, but this practice is less common in other European countries.

Rapid advances in technology and the emergence of new methods of crime investigation mean that criminalistics curricula need to be kept up to date. For example, the emergence of new DNA analysis techniques, the use of biometrics and the development of digital criminalistics should be reflected in curricula. However, updating programmes requires considerable effort and cost on the part of universities, which can lead to resistance and delays in adapting new material [11]. To keep curricula relevant, universities should actively follow scientific and technological developments in criminalistics and make timely changes to their curricula.

In addition, preparing students to work in an international environment is an important aspect. With the increasing number of transnational crimes and international cooperation in investigations, there is a need for students to be familiar with international standards and working methods. This requires the integration of topics related to international law and cooperation into the curriculum, as well as the study of foreign languages, which places an additional burden on students and teachers [30].

Thus, the integration of criminalistics into legal education in Europe faces many challenges that require a comprehensive approach. These difficulties can only be overcome through active cooperation between universities, public authorities and professional associations.

The role of criminalistics in shaping the professional competences of lawyers

Criminalistics plays an important role in the development of lawyers' professional competencies, providing them with the knowledge and skills necessary for effective criminal justice and law enforcement practice. Training in criminalistics helps students to develop the critical thinking, analytical and practical skills that are required in different areas of law.

Criminalistics provides lawyers with the necessary tools to effectively

investigate crimes, including methods and techniques for collecting, analysing and interpreting physical evidence. For example, criminalistics courses at German universities emphasise the study of forensic techniques, fingerprinting, forensic ballistics and DNA analysis. This knowledge is particularly important for lawyers working in investigative, prosecutorial or judicial settings where the accuracy and reliability of evidence is crucial [14]. The use of forensic techniques helps lawyers not only to gather evidence, but also to present it competently in court, which can have a significant impact on the outcome of a case.

The study of criminalistics helps students develop analytical thinking and the ability to critically evaluate information. For example, the analysis of physical evidence requires students to be able to compare data, draw logical conclusions and formulate reasonable hypotheses. These skills are important not only for investigators and prosecutors, but also for lawyers, who must be able to evaluate evidence presented by the opposing side and build a defence based on scientific methods and facts [30]. In universities where criminalistics is taught as a compulsory subject, students are given the opportunity to develop these skills in practice, which greatly enhances their readiness for professional life.

Criminology also plays an important role in preparing lawyers to work in international legal systems. With globalisation and the rise of transnational crime, lawyers are increasingly faced with the need to apply criminalistic knowledge to investigate international cases. For example, in the Master's programmes in criminalistics offered by the University of Leiden and the University of Lausanne, students study comparative law and international standards of criminal investigation, which helps prepare them to work in an international law enforcement environment [46]. This is particularly important given the growing need for lawyers who can work effectively in cross-border investigations and litigation.

Criminalistics has a significant impact on procedural decisions in court. Lawyers with a knowledge of criminalistics can more effectively present and interpret evidence in court. For example, the results of a forensic examination or DNA analysis can have a significant impact on the outcome of a case, and a lawyer with an understanding of these issues will have a distinct advantage in arguing their case in court [14]. This confirms the importance of criminalistics in preparing lawyers to make informed procedural decisions based on scientific evidence.

Criminalistics helps to improve communication between the various participants in the legal process, including investigators, prosecutors, lawyers and judges. For example, criminalistics courses at German universities teach students how to interact with experts, ask the right questions and interpret forensic results. Such courses often include practical exercises in which students learn how to work with forensic examinations and physical evidence, which helps them to further interact effectively with different actors in the legal process [29]. Improving such skills is particularly important in complex cases where a thorough understanding of technical and scientific aspects is required to properly present or challenge evidence. For example, in financial fraud litigation or cybercrime investigations, lawyers often need to interact with experts in digital criminalistics, analysing data generated by high-tech tools and interpreting it correctly in a legal context. The knowledge gained from criminalistics courses enables lawyers to participate more effectively in such proceedings, thereby improving the quality of justice.

Forensic knowledge also allows lawyers to participate in the development of new investigative techniques and legal standards, which is particularly important in the face of rapidly advancing technology and the emergence of new types of crime. For example, the development of DNA analysis techniques has led to the need to create new standards for the collection, preservation and use of biological evidence in legal proceedings. Lawyers with in-depth knowledge of criminalistics can actively participate in the development of such standards, ensuring that they comply with legal norms and international requirements [17]. Thus, criminalistics is not only an important element of legal education, but also a tool for developing law enforcement practice and improving legislation.

In modern conditions, when society demands more transparency and scientific validity of judicial decisions, the role of criminalistics in maintaining confidence in the legal system becomes even more important. Lawyers with knowledge of criminalistics are able to protect the rights of citizens more effectively by ensuring the legality and fairness of investigations and court proceedings. For example, in cases involving allegations of violence or murder, a properly conducted forensic examination and its accurate interpretation in court can have a decisive impact on the outcome of a case and prevent miscarriages of justice.

An important area of active research in European universities is the role of

forensic science in solving complex crimes, including medical cases. For example, the University of Lausanne in Switzerland, in collaboration with the University of Leiden in the Netherlands, focuses on forensic science and medical errors in its master's programme in criminalistics. In this programme, students learn techniques to help investigate cases of medical malpractice using interdisciplinary approaches that combine legal and scientific knowledge. In addition, the Université Paris Descartes in France [23] offers specialised courses focusing on forensic techniques in medical forensics, which play a key role in medical malpractice investigations. These courses provide students with the skills and knowledge needed to analyse complex medical data and use it correctly in legal proceedings.

Consequently, European universities are incorporating the study of forensic techniques required to investigate complex cases into their curricula, underscoring the significance of such expertise in contemporary legal systems. This contributes to the maintenance of a high level of professionalism among lawyers and the establishment of confidence in the justice system, which is fundamental for the stability and justice of society [20].

Prospects and Recommendations for Enhancing the Teaching of Criminalistics

In light of the evolving legal landscape, there is a pressing need for continuous improvement in the teaching of criminalistics at European universities. This is essential to equip lawyers with the skills and knowledge required to navigate the complexities and challenges of the modern legal system.

One of the main perspectives for improving the teaching of criminalistics is the development of an interdisciplinary approach. Criminalistics encompasses a variety of scientific fields, including law, chemistry, biology, computer science and psychology. Introducing interdisciplinary courses that combine knowledge from these fields will provide students with the broader and deeper knowledge needed to solve complex legal problems. At the University of Leiden, for example, students can choose courses that include modules in forensic science, criminology and law, helping to develop an integrated approach to the study of criminalistics and enhancing the quality of their education [9]. This approach can also include the integration of the latest advances in technology and science, such as artificial intelligence and machine learning, allowing students to learn tools that will be relevant in their future careers.

Practical training is an integral part of the training of qualified criminalists. To

this end, universities should develop cooperation with law enforcement agencies and forensic laboratories and provide students with opportunities for internships and participation in real investigations. German universities, such as the Humboldt University in Berlin [12], already have a practice where students complete internships in police stations or forensic laboratories, thus gaining valuable practical skills [32]. The development of such opportunities across Europe could significantly improve the quality of student training as well as the interaction between the academic community and law enforcement agencies.

In the context of digitalisation and globalisation, it is important to develop online and distance learning courses in criminalistics. These learning formats allow students who are in different countries or who work flexible hours to receive quality education without leaving their homes. For example, the UK Open University [35] offers online courses in criminalistics that include video lectures, interactive assignments and virtual laboratories, allowing students to learn at their own pace and at affordable prices [47]. Integrating such programmes into the European education system could make criminalistics more accessible and flexible for students, especially those living in remote areas or combining study and work.

International cooperation plays a key role in the development of criminal justice education. Joint educational programmes, participation in international conferences and seminars, and research collaboration allow universities to share best practice and innovation. For example, the Erasmus+ programme actively supports student and faculty exchanges between universities in Europe, helping to improve the quality of education and create an international network of criminalistics professionals [34]. Universities should actively use these opportunities to strengthen their criminalistics programmes and expand international links, enabling students to gain unique experience and knowledge for working in an international legal environment.

Continuous updating of curricula and materials is essential to maintain relevance. Universities need to respond quickly to changes in the legal landscape and scientific advances by incorporating new technologies and methodologies into the curriculum. For example, topics such as digital criminalistics, biometrics and big data analysis should become an integral part of criminalistics courses to prepare students to deal with new types of evidence and crimes. To this end, universities can develop new textbooks, organise seminars for teaching staff and regularly update curricula

[16]. Such an approach also involves the active participation of professors in research and publications, allowing them to remain at the forefront of science and to pass on the most up-to-date knowledge to their students.

In addition, the development of professional development programmes for teachers is an important aspect of improving the quality of criminalistics teaching. Teachers need to continually update their knowledge and skills to meet new demands and standards in criminalistics. Such programmes may include participation in specialized training, seminars and conferences, as well as exchange of experience with colleagues from other universities and countries [3]. This will enable lecturers to better adapt their courses to changing conditions and maintain a high standard of teaching.

Improving the teaching of criminalistics in European universities requires a comprehensive approach, including the development of interdisciplinary programmes, the strengthening of practical training, the use of modern technology and active international cooperation. These measures will help universities to produce highly qualified professionals who can work effectively in a rapidly changing world and contribute to the development of the legal system and the delivery of justice.

Conclusion

The integration of Forensic Science into legal education in Europe is an important step in ensuring highly qualified lawyers who are able to function effectively in the modern legal system. Criminalistics plays a crucial role in the development of professional competencies, providing future lawyers with the knowledge and skills needed to investigate crimes, analyse physical evidence and make procedural decisions.

Despite the challenges, the teaching of criminalistics in Europe continues to develop and adapt to modern needs. To further improve the discipline, emphasis should be placed on developing interdisciplinary programmes, strengthening practical training, introducing modern technology into the educational process and enhancing international cooperation.

As the legal profession continues to evolve, the importance of criminalistics in legal education will only increase. By seizing the opportunities and meeting the challenges, European law schools can ensure that their graduates are well prepared to meet the demands of modern legal practice and contribute to the fair and effective

administration of justice across the continent.

BIBLIOGRAPHY:

1. ACPO. Harnessing Science and Innovation for Forensic Investigation in Policing. Association of Chief Police Officers, 2012.
2. Complutense University of Madrid. [Accessed 31.08.2024] Available at: www.ucm.es/
3. Erasmus+. EU Programme for Education, Training, Youth and Sport. [Accessed 31.08.2024] Available at: erasmus-plus.ec.europa.eu/
4. European Academy of Forensic Science. [Accessed 31.08.2024] Available at: www.forensicsciences.eu/
5. European Higher Education Area. [Accessed 31.08.2024] Available at: https://ehea.info/
6. Freie Universität Berlin. [Accessed 31.08.2024] Available at: www.fu-berlin.de/
7. GHEORGHIȚĂ, M. *Tratat de Metodica Criminalistică*. CEP USM, 2015.
8. GOLUBENCO, Gh. Criminalistica: Obiect, Sistem, Istorie. Chișinău: Tip. Centrală, 2018.
9. GRIFOLL, J., et al. Quality Procedures in the European Higher Education Area and Beyond – Visions for the Future. Occasional Papers 18, Third ENQA Survey, 2012.
10. GROSS, H. Handbuch für Untersuchungsrichter als System der Kriminalistik. Verlag von Leopold Sommer, 1893.
11. HOUCK, M. M., AND J. A. Siegel. Fundamentals of Forensic Science. 3rd ed., Elsevier, 2015.
12. Humboldt University of Berlin. [Accessed 31.08.2024] Available at: www.hu-berlin.de/
13. Jagiellonian University. [Accessed 31.08.2024] Available at: www.uj.edu.pl/
14. JAMES, S. H., AND J. J. NORDBY. Forensic Science: An Introduction to Scientific and Investigative Techniques. 3rd ed., CRC Press, 2009.
15. KLEVNO, V. A., AND Y. V. NAZAROV. Forensic Medicine in Germany: Past and Present. In: Russian Journal of Forensic Medicine, vol. 7, no. 2, 2021, pp. 68-76.
16. KLOOSTERMAN, A., et al. The Interface Between Forensic Science and Technology: How Technology Could Cause a Paradigm Shift in the Role of Forensic Institutes in the Criminal Justice System. Philosophical Transactions of the Royal Society B: Biological Sciences, vol. 370, no. 1674, 2015, p. 20140264.
17. KOBILINSKY, L., et al. DNA: Forensic and Legal Applications. John Wiley & Sons, 2005.
18. Leiden University. [Accessed 31.08.2024] Available at: www.universiteitl eiden.nl/

19. Ludwig Maximilian University of Munich. [Accessed 31.08.2024] Available at: www.uni-muenchen.de/

20. MEŠKO, G., AND B. LOBNIKAR. Criminal Justice and Security in Central and Eastern Europe: Safety, Security, and Social Control in Local Communities: Conference Proceedings. Faculty of Criminal Justice and Security, 2016.

21. MULLER, A.-M., et al. Forensic Science Education and Training: A Tool-Kit for Lecturers and Practitioner Trainers, 2017, pp. 179-196.

22. National Institute of Scientific Police. [Accessed 31.08.2024] Available at: www.police-nationale.interieur.gouv.fr/Organisation/Etablissements-publics/INPS/

23. Paris Descartes University. [Accessed 31.08.2024] Available at: www.parisdescartes.fr/

24. PETERSON, J., et al. The Role and Impact of Forensic Evidence in the Criminal Justice Process. Document No. 231977, U.S. Department of Justice, 2010.

25. REINKE, H. Crime and Criminal Justice History in Germany: A Report on Recent Trends. In: Crime, Histoire & Sociétés, vol. 13, no. 1, 2009, pp. 117-137.

26. REISS, A. R. La Photographie Judiciaire. Mendel, 1903.

27. REISS, R. A. Manuel de Police Scientifique (Technique). I. Vols et Homicides. Payot Alcan, 1911.

28. REISS, R. A. The Kingdom of Serbia: Infringements of the Rules and Laws of War Committed by the Austro-Bulgaro-Germans; Letters of a Criminologist on the Serbian Macedonian Front. G. Allen & Unwin Ltd. & Simpkin, 1919.

29. ROBERTSON, J. Forensic Evidence Goes on Trial. Australian Journal of Forensic Sciences, vol. 41, no. 1, 2009, pp. 1-2.

30. ROBERTSON, J. Forensic Science, an Enabler or Dis-Enabler for Criminal Investigation? In: Australian Journal of Forensic Sciences, vol. 44, no. 1, 2012, pp. 83-91.

31. SAFERSTEIN, R. Criminalistics: An Introduction to Forensic Science. 13th ed., Pearson, 2021.

32. Sapienza University of Rome. [Accessed 31.08.2024] Available at: www.uniroma1.it/

33. SMITH, L. BOND, J. Criminal Justice and Forensic Science: A Multidisciplinary Introduction. Publisher, 2014.

34. TEICHLER, U. Higher Education Research in Europe. The European Higher Education Area, edited by A. Curaj, L. Matei, R. Pricopie, J. Salmi, and P. Scott, Springer, 2015.

35. The Open University. [Accessed 31.08.2024] Available at: www.open.ac.uk/

36. Université de Lille. [Accessed 31.08.2024] Available at: www.univ-lille.fr/

37. Université Paris II Panthéon-Assas. [Accessed 31.08.2024] Available at: www.u-paris2.fr/

38. University of Bologna. [Accessed 31.08.2024] Available at: www.unibo.it/
39. University of Bonn. [Accessed 31.08.2024] Available at: www.uni-bonn.de/
40. University of Edinburgh. [Accessed 31.08.2024] Available at: www.ed.ac.uk/
41. University of Helsinki. [Accessed 31.08.2024] Available at: www.helsinki.fi/en
42. University of Lausanne. [Accessed 31.08.2024] Available at: www.unil.ch/
43. University of Leeds. [Accessed 31.08.2024] Available at: www.leeds.ac.uk/
44. University of Warsaw. [Accessed 31.08.2024] Available at: www.uw.edu.pl/
45. Uppsala University. [Accessed 31.08.2024] Available at: www.uu.se/
46. VAN DIJK, J. Globalization and Crime: A Global Justice Perspective. 4th ed., SAGE Publications, 2018.
47. WILSON, C. Digital Learning and Forensic Science: A New Educational Paradigm. Routledge, 2015.
48. WILSON-WILDE, L. The International Development of Forensic Science Standards—A Review. In: Forensic Science International, vol. 288, 2018, pp. 1-11.