CURRENT ISSUES IN CRIMINALISTICS
(Criminalistics as both as a branch of science and as a university subject)

1. Defining the notions of Criminalistics in international terms

It appears that the differences between the continental and Anglo-Saxon legal systems also extend to Criminalistics, a field based mainly on natural sciences. Géza Katona showed not long ago that "criminalistics never took hold in the United Kingdom as a scientific concept. The concept of forensic science was partly identified with continental criminal technology. The literature of the field used the terms 'forensic' and 'scientific' interchangeably.

"The kinds of skills used in the course of investigating and solving crimes were not considered to be a part of ‘forensic science’. Until very recently British literature of the field understood the scientific examination or investigation of crimes in terms of natural scientific methods."

In addition to the classic fields of forensic biology, chemistry, ballistics and photography, we can add the recently-arrived fields of forensic computer technology (including, for example, the computerised examination of the human voice and intonation), anthropology (with emphasis on archaeological references), analysis of evidence, forensic nursing, engineering failure, fire science and the investigation of explosions, all of which are the legal responsibility of the experts.¹

¹ Katona, G (2002) p. 39
² In terms of teaching Criminalistics in higher education, the study of Forensic Science in Law courses and Criminal Justice courses at most British universities is continuously supplemented by research findings – which are often international. Katona, G. (2002) p.55
In the United States the use of the phrase ‘forensic science’ has been in use for many decades. Under the heading of ‘forensic science’ we typically find the kinds of scientific knowledge used for the investigation, examination and assessment of physical evidence. Its main branches are criminalistics and forensic medicine.\(^4\)

These days ever more volumes are being published under the heading of Criminalistics. The trend began in the 1960s and comes close to the continental terms.\(^5\) A fine example of this is Lab Manual which was published in 2001. Its subtitle still uses the old terminology – An introduction to forensic science, its main title, however, is Criminalistics.\(^6\)

There are also special branches of criminalistics to be found that are perhaps useful and which can be considered methodologically. Into such a category we can put personality profiling, molecular genetics and biology, and safety management.\(^7\)

Looking at the continental countries, in France (and in Belgium)\(^8\) the study of areas of criminal investigation is connected to texts such as Police Scientifique (scientific policing) and, after Locard, Manuel de technique policiere (policing techniques)\(^9\), although nowadays parallel use is also made of the term ‘criminalistics’.\(^10\) In 2001 the University of Paris published Manuel de

\(^3\) "One of the anomalies of the American legal system is that it does not draw a clear distinction between the expert evidence used in criminal and civil trials. The 'Federal Rules of Evidence' apply equally to both legal areas while also leaving the subject and method of the expert's statement open. Hence the 'Federal Justice Centre' which as a branch of government acts as a publisher of legal literature for the purposes of informing and expanding the knowledge of judges and justice system officers." Katona, G. (2002) p. 40


\(^5\) As for the teaching of Criminalistics in the United States, the maintenance of independent research institutions by several universities (e.g. Florida International University) or research faculties of 'criminal' forensics within the framework of organised departments (John Jay University, NY; George Washington University, Washington D.C.) has caused a shift in the organisation of research into forensic science, while the results are made use of in the taught courses.

\(^6\) Meloan, C.E., James, R.E. & R Saferstein (2001). A similar process can be also seen in the works of several other authors, for example in the case of O'Hara. In two of his basic works signs of both strands appear, see O'Hara, C. & J.W. Osterburg (1960) and O'Hara, C. & G. O'Hara (1994).

\(^7\) Forensic Nursing and Fire Studies are to be found in the USA as well as in the UK.

\(^8\) See Goddefroy, E. (1931); Louwage, F.E. (1948).

\(^9\) Locard, E. (1923); Gayet, J. (1965)

criminalistique moderne (Manual of modern criminalistics), the subtitle of which is la science et la recherche de la preuve\textsuperscript{11} (Science and the research of proof).\textsuperscript{12}

In German-speaking areas and in Eastern Europe criminalistics has always been accommodated and accepted as a term.\textsuperscript{13} In Germany it is chiefly

\textsuperscript{11} Buquet, A. (2001)
\textsuperscript{12} The title refers to the important fact that there is a very close link between proof and criminalistics, and in my view it refers not only to proof in criminal procedures but to proof as it occurs in all branches of law and all areas of legal practice, e.g. state administration law, employment law, civil law.)
\textsuperscript{13} Not an exhaustive list:
Wilhelm, J.G. (1965) Uvod u prakticnu kriminalistiku Sarajevo

Croatia: Kobovac, I (1960) Kriminalistika Zagreb
Pavisic, B. (2002) Uvod u kriminalistiku Zagreb

Czech Republic: Musil, J. (1994) Kriminalistika Prague

Geerds, F (1980) Kriminalistik Semidt-Römhild, Lübeck
Stuttgart, Munich, Hannover, Berlin, Weimar
Walter, H. (1975) Kriminalistisches Denken Hamburg


Czeczot, Z. & Czubalski, M. (1972) Zarys kryminalistyki Warsaw

the scientific institutions of the police force that carry out criminalistic research, according above all to the directions and research goals of the Federal Criminal Office (BKA) in Wiesbaden.\textsuperscript{14}

2. Innovations in criminal technology and criminal tactics

Under this heading I will be discussing innovations that we would wish to consider in university courses in Criminalistics and in textbooks on the subject. We cannot afford to ignore these innovations, all of which should appear in any up-to-date university course in Criminalistics, if only as part of a lecture.

Criminal technology and criminal tactics comprise the following, listed briefly below, without the kind of detail it is the job of the textbook to supply:

a) the growing use of spectroscopic procedures, particularly in the case of voice identification with the use of a spectogram (the computerised examination of the human voice and intonation);

b) the spread of DNA testing; the widespread availability of genetic identification;

c) the appearance and development of computerised techniques for identifying individuals;

\textsuperscript{14} The explanation for this is that the only German university offering courses in Criminalistics is Ulm. Before German reunification Criminalistics could be studied at several universities in East Germany, notably at Humboldt, but the courses were discontinued following reunification in keeping with the structure mentioned above.

I note here that the library of the Max Planck Institut für Ausländer und Internationalen Strafrecht in Freiburg im Breisgau has one of the most extensive criminalistics collections in the world, all of which are accessible to researchers of the subject.

The University of Lausanne is one of the bases of the tuition of criminal sciences in Switzerland. The university’s “Institute of Police Science and Criminology” conducts a wide range of criminalistic research.

A volume outlining ‘police science’ also appeared at the beginning of the last century in Italy. For more details, see Ottolenghi, S. (1910).
d) the use of mathematics-based Bayes analysis in identification tests;
e) the growth of crime analysis methods for mapping evidence, crimes and data;
f) the appearance of specific profiling techniques;
g) identification based on computer script and computer printers;
h) judicial fire science, including the investigation and examination of explosions.

3. Possible areas of further development for Criminalistics textbooks

It is the task of the textbook writer to introduce, describe and expound the areas of innovation listed above. In the face of this constantly updating field it is apparent that current textbooks - which are mostly general university Criminalistics textbooks of techniques and tactics, such as the Textbook and Atlas of Criminalistics\(^{15}\) – need to be broadened in scope to include a concise overview of the most important crimes (the most common and most significant), together with a criminal-methodological description. I believe the following should be considered:

a) crimes against life, especially homicide;
b) crimes against property, including burglary and theft;
c) robbery;
d) sex crimes, especially violent ones;
e) the category of ‘special investigations’ which includes the areas of
   - finance
   - computers (including identification based on computer script)
   - arson and explosions
   - organised crime
   - crimes in connection with terrorism.

4. The role of the laboratory in the teaching of Criminalistics

There are several arguments to support the view that Criminalistics is the ‘odd man out’ in Law departments in Hungarian universities. Firstly, it is not a

\(^{15}\) Tremmel, F. & Fenyvesi, Cs. (2002) Kriminalészeti tankönyv és atlasz. The ‘atlas’ part of this successful and useful guide needs to be updated to include actual examples and illustrations of the crime methods listed.
branch of law but belongs decidedly among the factual sciences, not having either legal codices nor detailed laws, but at most a legal framework largely because of legislation for criminal procedure. Secondly, it is based mainly on natural sciences, whereas law is steeped in principles of sociology. Finally, it is a practical area of science, one in which knowledge that has been acquired can soon be ‘cashed in’; such a step is duly expected, as only then can the required results and success be achieved. The Department of Criminal Procedures of the Faculty of Law of the University of Pécs has set up a laboratory of criministics in conjunction with Baranya County Police Department in order to legitimise and activate this last argument. Here – as can be seen from the Latin origins of its name – criministic work and practice can be dealt with and are dealt with on a regular basis. In an ideal situation each student would himself carry out at least the most basic criministic - mainly technical - tasks (e.g. investigating, developing and securing prints; analysing and recording matter remains; carrying out basic identification tests; criminal photography; computerised photofits, etc.) in addition to seeing a demonstration.

Further reforms are required before such an ideal situation can be attained, for the moment we will have to breathe life into the key moments of contact teaching by using auxiliary materials as well as pictures, objects and video recordings in connection with all the branches of Criminalistics.

5. The ‘Pécs Criminal Workshop’ and its planned literature for teaching and research

In addition to updating the aforementioned textbook and atlas of Criminalistics as well as the laboratory, over the next ten years we plan to publish the following materials as teaching resources:

a) lexicon of Criminalistics;\(^{16}\)

b) bibliography of Criminalistics;\(^{17}\)

c) Criminalistics case studies;\(^{18}\)


\(^{17}\) The last work of this type published in Hungary was edited by the Institute of Political Science and Law’s Criminalistics Working Group (*Állam- és Jogtudományi Intézet Kriminalistikai Munkaközösségé*) in 1956 and was titled “A Bibliography of Hungarian Literature on Criminalistics” (*A magyarnyelvű kriminalisztikai szakirodalom bibliográfiája*)
d) annual periodical containing articles by the members of staff at the Pécs Criminal Workshop, on the subject of Criminalistics, amongst other things.\textsuperscript{19}

The need is for the last one is the greatest, given that the number of new publications on Criminalistics has declined in recent years. As far as I am aware titles such as RTF Figyelő (RTF Observer), Magyar Rendőrszet (Hungarian Security) and Technikai Közlemény (Technical Bulletin), all of which covered the area in question, have unfortunately ceased to be published. Submitted articles to Belügyi Szemle (Home Affairs Review) meanwhile hardly ever deal with Criminalistics; in the rare cases that the subject is covered the questions of tactics and methods are typically focussed on, not techniques.

Unfortunately even such a famous scientific workshop as the National Criminological Institute (Országos Kriminológiai Intézet) has removed the word Criminalistic from its title; researchers and publications have to align themselves to the profile that is left in its place.

\textbf{Closing thoughts:}

The change in attitude towards the teaching of Criminalistics at universities which can be found among more and more heads of department – with the exception of the College of Police Officers – appears encouraging. In keeping with international tendencies and, as our research findings of two years ago showed, Criminalistics is the kind of factual science which is not exclusively the domain of investigators, in other words it is not ‘policing science’ for police officers. In fact because of its methodology it is an area of science that is relevant in the teaching of all branches of law that deal with proof, and as such it should be included in the structure of the taught curriculum of all law students, future legislators and legal practitioners.

The common responsibility of all tutors dealing with Criminalistics now and in the future is also clear: to write updateable teaching materials and resources that reflect modern attitudes. A tall order indeed!

\textsuperscript{18} To the best of my knowledge such a publication – broad in scope, systematically compiled, based on scientific criminalistics results – does not exist in the realm of university teaching resources.

Fenyvesi Csaba, Ph.D., *Current issues in Criminalistics* (стр. 255-265)

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262


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Smuggling Nuclear Materials as a Field of Organized Crime

Introduction

By the end of the 1980s and the beginning of the 90s there were some countries - mostly European ones - that had to face a new challenge; certain delinquents and criminal groups displayed illegal activities in crimes related to nuclear materials.

The weight of this phenomenon should not be underestimated or ignored at all, and every effort must be made to find an efficient way to stop it both within the states and between them. If no measures are taken, it may entail consequences that are difficult to foresee and that might affect not only, one given country but also continents, and perhaps I am not exaggerating if I say it may exercise influence in the whole world.

In my presentation I intend to give you an outline of the criminal situation in the former Soviet Union, and in Europe as well regarding smuggling nuclear materials, its legal regulations as well as ways and possibilities of its prevention.

I.

INTERNATIONAL CRIMINAL SITUATION REGARDING NUCLEAR MATERIALS

At the end of the 1980s Eastern Europe saw a period of sweeping political changes and a deep economic recession, which brought about a totally new situation for people living in the region and especially in the former Soviet Union. It is a situation which we still have to learn to live together with. A major
point here is that the state has ceased to guide and control everything, thus the fate of citizens is in their own hands.

New achievements such as freedom of speech, the possibility of receiving western TV channel broadcasts and communication have raised such pretentions in a lot of people that cannot be pleased with traditional and attainable means. All these reasons among others have made people leave their countries and start a new life somewhere else.

As a consequence of these great migrations potential criminals have also proceeded towards and are still heading for Western Europe with the aim of acting on their own or taking part in organized criminal activities.

This delinquent group is joined by those who believe that there is an existing market for radioactive materials, fittings or final products in the form of bombs, rockets and explosives.