

# **Selected issues of trasology**

## **Abstract**

This diploma thesis deals with partial issues of the field of trasology. Trasology in general represents one of the forensic-technical fields, which deals with footprints, shoeprint, teeth and ear impressions, tire prints and similar objects. The aim of this thesis is to present an analysis of the issue and to provide an answer to the question whether trasology is still a relevant field in the Czech Republic and abroad. In this context, special attention is paid to identification tools used in trasology.

The methods used are description, analysis, comparison with foreign countries and own research activity. The whole thesis is structured into five chapters. The first chapter deals with the area of definition of the term of trasology and other related terms. This chapter also contains subchapters devoted to the historical development of trasology and its relation to criminal law and to other forensic fields.

The second chapter deals in more detail with the use of trasology in practice. This chapter includes a treatise on trasological traces and their use in criminal proceedings. Trasological traces are then divided into several categories according to the nature of the object that created the trace. Subsequently, an insight into the identification tools TRASIS and LUCIA is provided.

The third chapter is devoted to a comparison with selected foreign countries. It compares the differences in the concepts of criminalistics and forensic science in the Czech Republic and abroad. Furthermore, this chapter provides a comparison of foreign identification systems SICAR, SoleMate, SHARS and EVERSPRY. The international organisation for cooperation of criminalistics institutions called ENFSI is also mentioned in this chapter.

The fourth chapter is devoted to case studies. Several cases studies are used to present situations where the role of trasology has proved to be essential. The cases mentioned here deal with the most common originators of trasological traces, which are footwear, transport vehicles and human teeth.

The last fifth chapter contains a research of the dependence of a person's height on the size of his footwear, based on data collected through a questionnaire survey. This dependence was investigated on a group of 102 volunteers. The outcome of this research is the determination of the degree of dependence between these two values.

**Key words:** trasology, shoeprint, footwear identification system