

Trasology and its use in crime investigation

Abstract

Title of this thesis is Trasology and its use in crime investigation. This thesis focus on trasology which is discipline of forensic science examining foot traces, traces of other body parts and traces of vehicles.

The objective of this thesis is to provide its reader basic summary about this discipline of forensic science and methods used in this discipline especially application of biomechanics in trasology and height estimation from foot prints dimensions. This thesis is divided into eleven chapters. First chapter after introducing chapter is chapter about history of trasology, following chapters describe individual groups of trasological traces. Following chapters focus on methods of detecting and capturing trasological traces. Chapters number seven and eight are about methods of forensic examination of trasological traces.

Main part of this thesis consist of chapter about application of biomechanics in trasology and experimental chapter presenting results of comparison of methods of height estimation from foot prints dimensions. Biomechanics is used in trasology mainly for estimation of height from traces of various body parts. In the experimental chapter you can find comparison of six methods of height estimation from length and breadth of foot traces. The accuracy of estimation vary in case of each method. Especially in case of older methods from 19th century the estimation is rather rough. Much more accurate are modern methods using both length and breadth to estimate height. The data used for the experimental part are from group of volunteers consisting of 28 men and 18 women in age from 19 to 27.

Keywords: trasology, forensic science, traces