

# CONTENTS

<b>ABBREVIATIONS</b> .....	9
<b>WORD AHEAD</b> .....	11
<b>Chapter I</b>	
<b>Theoretical Considerations on Crime Scene Evidence</b> .....	13
1.1 General concepts .....	13
1.2 Classification of Traces at the Crime Scene.....	17
1.3 Classification of Traces by Mode of Formation.....	19
1.4 Classification of Traces According to the Nature of the Factors Involved in the Formation Process .....	24
1.5 Classification of Traces by Size .....	25
1.6 Classification of Traces According to the Possibilities They Offer in the Identification Process .....	26
<b>Chapter II</b>	
<b>Forensic Investigation of Handprints</b> .....	28
2.1 General Information .....	28
2.2 Properties of Papillary Design.....	31
2.3 Classification of Papillary Pattern .....	38
2.4 Characteristic Details of Papillary Design .....	46
2.5 Other Papillary Relief Details .....	49
2.6 Scene of Crime Search for Handprints .....	51
2.7 Classification of Handprints at the Scene.....	51
2.8 Search and Discovery of Handprints on Site.....	53
2.9 Establishing Age and Interpreting Handprints on Site .....	55
2.10 Optical Trace Detection on Site .....	57
2.11 Handprint Detection by Physical (Mechanical) Methods .....	60
2.12 Handprint Detection Using Chemical Methods .....	64
2.13 Fixing and Removing Handprints from the Crime Scene .....	67
2.14 Handprint Expertise.....	72
<b>Chapter III</b>	
<b>Forensic Investigation of Footprints</b> .....	84
3.1 General Information .....	84

3.2 Classification, Formation and Significance of Footprints .....	85
3.3 Search and Discovery of Footprints at the Crime Scene .....	91
3.4 Fixing and Lifting Footprints at the Crime Scene .....	93
3.5 Interpretation of Footprints at the Scene .....	101
3.6 Examination and Expertise of Footprints .....	105

## **Chapter IV**

<b>Forensic Investigation of Other Homeoscopic Traces</b> .....	109
4.1 General Information .....	109
4.2 Forensic Investigation of Teeth Marks .....	110
4.3 Forensic Investigation of Lip Marks .....	121
4.4 Forensic Investigation of Traces Formed by Other Parts of Human Body .....	130
4.5 Ear Traces .....	131
4.6 Nose Marks .....	133
4.7 Forehead Traces .....	134
4.8 Wrinkle Traces .....	135
4.9 Chin, Elbow and Knee Traces .....	136
4.10 Fingernail Traces .....	136
4.11 Discovering and Interpreting Traces Formed by Other Parts of the Human Body .....	138
4.12 Expertise of Traces Formed by Other Parts of the Human Body .....	139

## **Chapter V**

<b>Forensic Investigation of Biological Traces of a Human Nature</b> .....	142
5.1 General Information .....	142
5.2 Forensic Investigation of Blood Traces .....	149
5.3 Search, Discovery and Interpretation of Blood Traces at the Scene .....	153
5.4 Fixing and Lifting Bloodstains .....	160
5.5 Blood Trace Forensics .....	164
5.6 Forensic Investigation of Saliva Traces .....	165
5.7 Forensic Investigation of Traces of Sperm .....	170
5.8 Forensic Investigation of Other Biological Traces of a Human Nature .....	177
5.9 Forensic Investigation of Hair Traces .....	181
5.10 Forensic Investigation of Osteological Traces .....	187
5.11 Forensic Investigation of Smell/Odor Traces .....	193

**Chapter VI**

**Forensic Investigation of Traces Formed by Objects**

**or Various Substances** .....202

6.1 General Information .....202

6.2 Forensic Investigation of Micro Burglary .....211

**Chapter VII**

**Forensic Investigation of Traces of Fires or Explosions**.....226

7.1 General Information .....226

7.2 Forensic Fire Investigation .....226

7.3 Forensic Investigation of Explosions .....237

**Bibliographic Sources**.....245