

# Contents

<b>Abstract</b>	<b>V</b>
<b>Zusammenfassung</b>	<b>VII</b>
<b>1 Introduction</b>	<b>1</b>
1.1 Scope of the thesis . . . . .	3
1.2 Structure of the thesis . . . . .	5
<b>2 Methods</b>	<b>7</b>
2.1 Palaeostress Analysis . . . . .	7
2.2 Geophysical Techniques . . . . .	11
2.2.1 Ground Penetrating Radar . . . . .	11
2.2.2 Electrical Resistivity . . . . .	12
2.2.3 Sidescan Sonar . . . . .	13
2.3 Percussion drilling . . . . .	13
2.3.1 X-ray fluorescence analysis . . . . .	14
2.3.2 Magnetic Susceptibility . . . . .	15
2.3.3 Combining geophysical methods across faults . . . . .	15
2.4 Dating methods . . . . .	16
2.4.1 Radiocarbon dating . . . . .	16
2.4.2 OSL dating . . . . .	17
2.5 Tectonic morphology studies . . . . .	17
2.5.1 Remote Sensing . . . . .	17
2.5.2 Geomorphological Analysis . . . . .	19
2.5.3 Workflow . . . . .	21
<b>3 Regional Setting</b>	<b>23</b>
3.1 Geodynamic setting . . . . .	23
3.2 Seismicity and Neotectonics . . . . .	28
3.3 Regional Geology . . . . .	32
3.3.1 Korabi Zone . . . . .	34
3.3.2 Mirdita Zone . . . . .	36
3.3.3 Syn- and postorogenic development . . . . .	36
3.3.4 Hydrology . . . . .	38
<b>4 Palaeostress Analysis</b>	<b>41</b>
4.1 Orogenic Phase . . . . .	44
4.2 Transtensional Phase . . . . .	51
4.3 Extensional Phase . . . . .	53
4.4 Discussion . . . . .	54

<b>5</b>	<b>Sedimentological Investigations</b>	<b>59</b>
5.1	Struga . . . . .	62
5.1.1	Drilling and core logging . . . . .	62
5.1.2	Geophysical investigations . . . . .	64
5.1.3	Interpretation . . . . .	64
5.2	Velestovo . . . . .	66
5.2.1	Drilling and core logging . . . . .	66
5.2.2	Geophysical investigations . . . . .	69
5.2.3	Interpretation . . . . .	70
5.3	Sveti Naum . . . . .	72
5.3.1	Drilling and core logging . . . . .	72
5.3.2	Geophysical investigations . . . . .	74
5.3.3	Interpretation . . . . .	74
5.4	Daljan River Delta . . . . .	75
5.4.1	Drilling and core logging . . . . .	75
5.4.2	Geophysical investigations . . . . .	77
5.4.3	Interpretation . . . . .	77
5.5	Lini . . . . .	79
5.5.1	Drilling and core logging . . . . .	79
5.5.2	Geophysical investigations . . . . .	82
5.5.3	Interpretation . . . . .	84
5.6	Discussion . . . . .	84
<b>6</b>	<b>Geomorphology</b>	<b>87</b>
6.1	Morphological markers . . . . .	94
6.1.1	Triangular facets . . . . .	94
6.1.2	Wind gap . . . . .	97
6.2	Scarp profiles . . . . .	99
6.2.1	East coast . . . . .	99
6.2.2	West coast . . . . .	104
6.2.3	North . . . . .	109
6.3	Discussion . . . . .	111
<b>7</b>	<b>Synthesis</b>	<b>121</b>
	<b>Acknowledgements</b>	<b>125</b>
	<b>References</b>	<b>127</b>
<b>A</b>	<b>Appendix</b>	<b>141</b>