TABLE OF CONTENTS

Part 1: Introduction	
Chapter 1: Negev and Its Inhabitants	3
1.1. History of the Negev: Since the Beginning of Time up to the Establishment of the State of Israel1.2. Geography and Topography of the Negev	3 10
Chapter 2: Bedouins	13
2.1. The Origin of Bedouins2.2. The Bedouins in the Land of Israel2.3. Negev Bedouins' Identity2.4. Demography	13 16 19 25
Chapter 3: A Look at Ethnomathematics	29
3.1. Preface to Ethnomathematics3.2. Introduction to Ethnomathematics: Study and Research in	29
Ethnomathematics 3.3. Several Other Definitions of Ethnomathematics 3.4. The Role of Ethnomathematics in Mathematics Education	32 34 35
Part 2: Ethnomathematics of the Bedouin Embroidery and Weave	
Chapter 4: Bedouin Women and Embroidery	45
 4.1. Bedouin Women on Modern-Traditional Axis: Functioning and Mobility 4.2. Feminine Bedouin Enterprises 4.3. Embroidery: Traditional Women's Handcraft in Palestine and around the World 	45 48 53
Chapter 5: Identity of the Negev Bedouin Women's Embroideries: Dress and Dwelling Decorations	55
5.1. Dress Embroidery5.2. Embroidered Dress Parts5.3. Decorative Embroidered Belongings	55 62 65

TABLE OF CONTENTS

Chapter 6: Transformations, Shapes and Patterns Analysis in the Negev Bedouins' Embroideries	69
 6.1. A Brief Account of the Symmetries of Frieze and Wallpaper Groups 6.2. Frieze Group Features in the Embroideries 6.3. Wallpaper Groups Features in the Embroideries 6.4. Color Symmetry and Its Features in the Embroideries 6.5. Escher's Filling-Plane Model in Bedouin Embroidery Compositions 6.6. The Embroiderer's Story 6.7. An Insight into the Embroidery Patterns 	69 74 81 85 92 102
Chapter 7: Patterns, Colors, and Designs in Bedouins Rugs and Other Items	167
7.1. Negev Weaving7.2. Stripe Patterns, Designs, and Color Combinations among Negev Bedouin7.3. Negev Bedouin Families' Woven Items	167 174 185
Part 3: The Bedouin Way of Life: Ethnomathematics Anywhere	
Chapter 8: Measurable Division of Ground Shapes: Family-Cultural-Geographical Viewpoint	209
8.1. Division of Ground Shapes of Unrecognized Villages in the Northern Negev8.2. Visit with the Shepherd8.3. Arabic Measurement Units of Length	210 218 223
Chapter 9: Well, Waterhole, and Tent: The Inseparable Constructions of Negev Bedouins Desert Existence	229
9.1. Water in Negev Desert9.2. Waterholes9.3. Water Wells9.4. Tent	229 231 238 241
Chapter 10: Games as Bedouin Heritage for All Generations	253
10.1. Games People Play10.2. The Negev Bedouins' Games	253 256
Chapter 11: Epilogue	273

Part 4: Bridging between Life and School: Why and How

Chapter 12: Interweaving the Ethnomathematical Approach into	
Teaching and Learning Mathematics	281
12.1. The Linkages between Ethnomathematics, Mathematics and Curriculum12.2. Ethnomathematics in Mathematics Preservice Teachers'	281
Education in Practice	283
Chapter 13: Ethnomathematics in Mathematics Curriculum via Ethnomathematical Word Problems: The Case Problems Arising in Negev Bedouin Culture and Society	289
13.1. Pros and Cons of Integrating Ethnomathematics in Mathematics School Curriculum13.2. Ethnomathematical Problems as an Issue of an	289
Ethnomathematical Approach 13.3. The Bedouin School Students Engaging with Ethnomathematical	291
Problematic Situations	295
Appendix	305
References	311