

## TABLE OF CONTENTS

Acknowledgments .....	v
List of figures .....	xiii
List of Tables .....	xiv
List of Abbreviations and Symbols .....	xix
Chapter 1 Introduction.....	1
1.0 Introduction .....	1
1.1 Background.....	3
1.1.1 Historical .....	4
1.1.2 Geography & Demography .....	4
1.1.3 Socio-cultural & Religious Setting.....	7
1.1.4 Communication .....	9
1.2 Overview of each group .....	9
1.2.1 Kayah.....	11
1.2.2 Kayaw.....	12
1.2.3 Monumanaw .....	15
1.2.4 Yintale .....	18
1.3 Previous Research .....	19
1.3.1 Classification of Karen .....	19
1.3.2 Internal Classification.....	21
1.3.3 Phonological Studies .....	24
1.3.3.1 Kayah (Western).....	25
1.3.3.2 Kayaw .....	33
1.4 Purpose of this Thesis.....	34
1.5 Methodology.....	34
Chapter 2 Lexical Comparison.....	37
2.0 Introduction .....	37

2.1 Lexicostatistic Analysis.....	37
2.2 Family-tree Relationship .....	42
Chapter 3 Synchronic Phonologies .....	44
3.1 Kayah .....	44
3.1.1 Kayah Syllable Structure Types .....	44
3.1.2 Kayah Consonants .....	46
3.1.2.1 Kayah Plosives .....	46
3.1.2.2 Kayah Fricatives and Affricates .....	50
3.1.2.3 Kayah Nasals .....	54
3.1.2.4 Kayah Approximants.....	55
3.1.3 Kayah Consonant Clusters .....	57
3.1.3.1 Kayah Observed Consonant Clusters .....	58
3.1.3.2 Kayah Description and distribution.....	60
3.1.4 Kayah Vowels .....	63
3.1.4.1 Kayah Observed Vowel Chart.....	63
3.1.4.2 Kayah Phonemic description.....	63
3.1.4.3 Kayah Revised Inventory .....	65
3.1.5 Kayah Tones .....	65
3.1.5.1 Kayah Description and distribution.....	66
3.1.5.2 Kayah Initial consonant tone Correlation.....	69
3.1.5.3 Kayah Tone pattern based on the Luce/Haudricourt analysis .....	69
3.2 Kayaw .....	70
3.2.1 Kayaw Syllable Structure Types .....	70
3.2.2 Kayaw Consonants .....	71
3.2.2.1 Kayaw Plosives .....	71
3.2.2.2 Kayaw Nasals .....	75
3.2.2.3 Kayaw Fricatives and affricates .....	75
3.2.2.4 Kayaw Approximants .....	78

3.2.3 Kayaw Consonant Clusters.....	79
3.2.3.1 Kayaw Observed consonant clusters .....	79
3.2.3.2 Kayaw Description and distribution.....	81
3.2.4 Kayaw Vowels.....	83
3.2.4.1 Kayaw Observed Vowel Chart.....	83
3.2.4.2 Kayaw Phonemic Description .....	83
3.2.5 Kayaw Tones .....	85
3.2.5.1 Kayaw Observed tones .....	85
3.2.5.2 Kayaw Description (including allophones) .....	86
3.2.5.3 Kayaw Initial Consonant tone Correlations .....	88
3.2.5.4 Kayaw Tone pattern analysis.....	89
3.3 Monumanaw .....	90
3.3.1 Monumanaw Syllable Structure .....	90
3.3.2 Monumanaw Consonants .....	91
3.3.2.1 Monumanaw Plosives.....	92
3.3.2.2 Monumanaw Fricatives and Affricates .....	95
3.3.2.3 Monumanaw Nasals .....	97
3.3.2.4 Monumanaw Approximants .....	97
3.3.3 Monumanaw Consonant Clusters.....	99
3.3.4 Monumanaw Vowels.....	103
3.3.4.1 Monumanaw Observed Vowel Chart .....	103
3.3.4.2 Monumanaw Phonemic Distribution.....	104
3.3.4.3 Monumanaw Revised Inventory.....	105
3.3.5 Monumanaw Tones .....	105
3.3.5.1 Monumanaw Observed tones .....	105
3.3.5.2 Monumanaw Description (including allophones) .....	106
3.3.5.3 Monumanaw Initial consonant tone correlations .....	107
3.3.5.4 Monumanaw Vowels and tones correlations.....	107

3.3.5.5 Monumanaw Tone pattern analysis.....	109
3.4 Yintale .....	109
3.4.1 Yintale Syllable Structure.....	109
3.4.2 Yintale Consonants.....	110
3.4.2.1 Yintale Plosives .....	111
3.4.2.2 Yintale Nasals.....	115
3.4.2.3 Yintale Fricatives and Affricates .....	116
3.4.2.4 Yintale Approximants .....	119
3.4.2.5 Yintale Revised Inventory .....	121
3.4.3 Yintale Consonant Clusters .....	121
3.4.3.1 Yintale Observed consonant clusters.....	121
3.4.3.2 Yintale Description and Distribution.....	124
3.4.4 Yintale Rhymes .....	126
3.4.4.1 Yintale Observed rhymes .....	126
3.4.4.2 Yintale Description (including allophones).....	127
3.4.5 Yintale Tones.....	129
3.4.5.1 Yintale Observed Tones .....	130
3.4.5.2 Yintale Description (including allophones).....	130
3.4.5.3 Yintale Initial consonant tone correlations.....	130
3.4.5.4 Yintale Correlation between Vowels and Tones .....	131
3.4.5.5 Yintale Tone pattern based on the Luce/Haudricourt analysis....	133
Chapter 4 Comparison and Correspondences.....	135
4.0 Introduction .....	135
4.1 Synchronic Comparison .....	135
4.1.1 Syllable structures in Comparison.....	135
4.1.2 Consonant Phonemes in Comparison .....	137
4.1.3 Initial Consonants in Comparison .....	138
4.1.4 Consonant Clusters Comparison .....	139

4.1.4.1 Clusters with /w/ .....	139
4.1.4.2 Clusters with /j/ .....	140
4.1.4.3 Clusters with /r/ .....	141
4.1.4.4 Clusters with /l/ .....	142
4.1.4.5 CCC clusters with /lw/.....	143
4.1.4.6 CCC clusters with /rw/.....	143
4.1.4.7 CCC clusters with /lj/.....	144
4.1.4.8 CCC clusters with /rj/.....	144
4.1.5 Vowels.....	145
4.1.5.1 Plain Vowels.....	145
4.1.5.2 Diphthong Vowels.....	145
4.1.5.3 Vowel Plus Nasal .....	146
4.1.6 Tone Phonemes in Comparison.....	147
4.2 Diachronic Comparison.....	147
4.2.1 Correspondences of initial consonants .....	148
4.2.2 Correspondences of consonant clusters.....	150
4.2.3 Correspondences of Rhymes .....	151
4.2.4 Correspondences of tones.....	152
Chapter 5 Conclusion .....	154
5.1 Summary.....	154
5.2 Synthesis.....	157
5.3 Further Study .....	159
Appendix A Wordlist in Full Syllable.....	160
Appendix B Wordlist for Initial Tone Category Analysis.....	172
Appendix C Karenic Tone Box with Representative Examples .....	173
Appendix D Wordlist Used for Lexicostatistics.....	174
Bibliography .....	177

## LIST OF FIGURES

Figure 1. Map of Burma and Location of Kayah State .....	2
Figure 2. Map of Seven Townships and Village-tracts Centers.....	6
Figure 3. The Distribution of Karenic Languages in Kayah State of Burma .....	10
Figure 4. The Map of Kayaw Villages Area .....	14
Figure 5. Map of Monumanaw Villages Area.....	17
Figure 6. Classification of Sino-Tibetan (Benedict 1972:6) .....	20
Figure 7. STEDT (2004) Classification of Sino-Tibetan .....	21
Figure 8. Karenic Language Relationships (Jones 1961:83).....	22
Figure 9. Classification of Karen (Kauffman 1993:5).....	22
Figure 10. Classification of Karenic (Bradley 1997:47) .....	23
Figure 11. Karen Language Relationships (Manson 2002).....	24
Figure 12. Examples of Comparison .....	40
Figure 13. Family – tree Depicting Lexical Relationships.....	42
Figure 14. Central Karenic Languages Tree Based on average link method .....	43
Figure 15. Family-tree Depicting Lexical Relationships .....	155

## LIST OF TABLES

Table 1. dötèmá and döshòpiá Kayah dialect consonants (Bennett 1991).....	25
Table 2. dötèmá and döshòpia Vowels (Bennett 1991).....	25
Table 3. Kayah Phonemic Consonants (Bryant et. al. 1993).....	26
Table 4. Kayah Vowels (Bryant et. al. 1993) .....	27
Table 5. Kayah CCV Clusters with Vowels (Bryant et. al 1992).....	27
Table 6. Kayah CCCV Clusters with Plain and Semi-vowels (Bryant et. al. 1992) ...	27
Table 7. Kayah Tones (Bryant et. al. 1992) .....	27
Table 8. Western Kayah Li Phonemic Consonants (Kauffman 1993) .....	28
Table 9. Western Kayah Vowels (Kauffman 1993) .....	29
Table 10. Western Kayah Li Tones (Kauffman 1993) .....	29
Table 11. Eastern Kayah Li Phonemic Consonants (Kauffman 1993) .....	30
Table 12. Eastern Kayah Vowels (Kauffman 1993) .....	30
Table 13. Eastern Kayah Li Tones (Solnit 1997).....	30
Table 14. Kayah Consonants (Lar Baa 2001) .....	31
Table 15. Kayah Vowels (Lar Baa 2001) .....	31
Table 16. Eastern Kayah Li Phonemic Consonants (Solnit 1992) .....	32
Table 17. Eastern Kayah Vowels (Solnit 1997) .....	32
Table 18. Eastern Kayah Li Tones (Solnit 1997).....	32
Table 19. Blimaw Bwe Consonants (Henderson 1997) .....	33
Table 20. Blimaw Bwe Vowels (Henderson 1997).....	33

Table 21. Blimaw Bwe Consonant Clusters (Headerson 1997) .....	33
Table 22: Phonetic Similarity Algorithm .....	38
Table 23. The Phone Table for Lexical Similarity (Blair 1990:32) .....	39
Table 24. Matrix of Lexicostatistic Percentages of Similarity .....	41
Table 25. Observed Consonants .....	46
Table 26. Initial, second and third cluster consonants chart.....	57
Table 27. Restriction Chart.....	60
Table 28. The Consonant Clusters of /kl, kr, pl, pr/ .....	61
Table 29. Consonant Distribution Chart.....	61
Table 30. Consonant Contrasts Chart.....	62
Table 31. Observed Vowel Chart .....	63
Table 32. Vowel Distribution Chart in Kayah.....	64
Table 33. Vocalic Contrast Chart .....	65
Table 34. Tonal Phoneme Chart.....	66
Table 35. Tone Contrast Chart .....	66
Table 36. The Distribution of Three Tones Chart .....	68
Table 37. Tones and Consonants Co-relationship in Kayah .....	69
Table 38. Kayaw Consonant Chart.....	71
Table 39. Initial and Second Consonant Chart.....	79
Table 40. The Contrasts of Minimal Pairs.....	82
Table 41. Vowel phonemic chart.....	83
Table 42. Vowel Distributions Chart.....	84

Table 43. Kayaw Vocalic Contrasts Chart .....	85
Table 44. Demonstrating Diacritic Tones in Kayaw .....	86
Table 45. Tone Contrasts in Kayaw .....	86
Table 46. The Distribution of Three Tones Chart in Kayaw.....	87
Table 47. Kayaw Initial Consonant Tone Correlations Chart.....	88
Table 48. Monumanaw Consonants .....	91
Table 49. The restriction of the Co-occurrences in Second Consonants.....	100
Table 50. Consonant Distribution Chart in Monumanaw .....	101
Table 51. Consonant Contrast Chart .....	103
Table 52. Phonemic Vowels.....	103
Table 53. Vowel Distribution Chart in Monumanaw .....	104
Table 54. Vowel Contrast Chart.....	105
Table 55. Demonstrating Diacritic Tones in Monumanaw .....	106
Table 56. Tone Contrast Chart in Monumanaw .....	106
Table 57. Tones and Consonants Co-relationship .....	107
Table 58. Vowels and Tones Co-relationship .....	107
Table 59. The Distribution of Three Tones Chart .....	108
Table 60. Syllable Types Occurring with Tones .....	110
Table 61. Yintale Phonemic Consonants.....	111
Table 62. Vowel and Final Consonant Correlations .....	121
Table 63. Example of Yintale Consonant Cluster .....	124
Table 64. Yintale Consonant Distributions .....	124

Table 65. Phonetically Similar Consonants.....	126
Table 66. Yintale Plain Phoneme Vowels .....	126
Table 67. Yintale Diphthong Phoneme Vowels .....	127
Table 68. Yintale Nasalized Phoneme Vowels .....	127
Table 69. Vowel Distributions Chart in Yintale.....	128
Table 70. Yintale Phonetically Similar Vowels .....	129
Table 71. Demonstrating Diacritic Tones in Yintale.....	130
Table 72. Yintale Tone Contrasts.....	130
Table 73. Yintale Initial Consonant Tone Correlations.....	131
Table 74. Yintale Correlation between Vowels and Tones.....	132
Table 75. The Distribution of Three Tones Chart .....	133
Table 76. Examples of Syllable Shapes in Kayah.....	135
Table 77. Examples of Syllable Shapes in Kayaw .....	136
Table 78. Examples of Syllable Shapes in Monumanaw .....	136
Table 79. Examples of Syllable Shapes in Yintale.....	136
Table 80. Phonemes in Comparison.....	137
Table 81. Initial Consonants in Comparison Charts.....	138
Table 82. Clusters with /w/ Charts.....	140
Table 83. Clusters with /j/ Charts.....	141
Table 84. Clusters with /r/ Charts.....	142
Table 85. Clusters with /l/ Charts.....	142

Table 86. Clusters with /lw/ Charts .....	143
Table 87. Clusters with /rw/ Charts .....	143
Table 88. Clusters with /l j/ Charts .....	144
Table 89. Clusters with /r j/ Charts .....	144
Table 90. Plain Vowel Charts.....	145
Table 91. Diphthong Vowel Chart of Kayah.....	145
Table 92. Diphthong Vowel Chart of Yintale .....	145
Table 93. Vowel Plus Nasal Chart of Yintale .....	146
Table 94. Tone Phonemes Comparison Charts .....	147
Table 95. Initial Consonant Correspondences.....	148
Table 96. The Correspondences of Consonant Clusters.....	150
Table 97. Vowel Correspondences.....	151
Table 98. Tone Correspondences .....	152
Table 99. The Summary of the Different Aspects Analysis.....	158