

Preface	1
<u>1 The size and structure of phonological inventories</u>	5
1.1 Introduction	5
1.2 Design of the database	5
1.3 Variations in inventory size	7
1.4 Relationship between size and structure	9
1.5 Phonetic salience and the structure of inventories	13
1.6 Compensation in inventory structure	17
1.7 Segments and suprasegmentals	20
1.8 Segment inventories and syllable inventories	21
1.9 Conclusions	23
Notes to Chapter 1	23
References	24
<u>2 Stops and affricates</u>	25
2.1 Introduction	25
2.2 Stop series	25
2.3 Summary of analysis of stop systems	31
2.4 Stop systems by place	31
2.5 Stop and affricate places	34
2.6 Voicing and place of articulation for plosives	34
2.7 Secondary articulations with plosives	37
2.8 Affricates	38
2.9 Summary of generalizations on stops and affricates	39
Notes to Chapter 2	40
References	40

3	<u>Fricatives</u>	41
3.1	Introduction	41
3.2	The occurrence of fricatives	42
3.3	Number of fricatives per language	43
3.4	Implications of voicing in fricatives	47
3.5	Gamkrelidze's implicational proposals	49
3.6	Predicting frequency from intensity	49
3.7	Estimates of perceptual salience of fricatives	51
3.8	The structure of systems of fricatives	52
3.9	The phoneme /h/	57
3.10	Conclusion	57
	References	58
4	<u>Nasals</u>	59
4.1	Introduction	59
4.2	Types of nasals	59
4.3	Ferguson's "Assumptions about nasals": primary nasal consonants	61
4.4	Primary nasals and obstruents	64
4.5	Secondary nasal consonants	65
4.6	Restated generalizations about nasals	69
4.7	Explanations for nasal patterns	70
	References	71
5	<u>Liquids</u>	73
5.1	Introduction	73
5.2	Overall frequency of liquids	73
5.3	Laterals	74
5.4	R-sounds	78
5.5	Structure of liquid systems	82
5.6	Generalizations on the structure of liquid systems	87
5.7	Conclusion	89
	Notes to Chapter 5	89
	References	90

6	<u>Vocoid approximants</u>	91
6.1	Introduction	91
6.2	Frequency of vocoid approximants	91
6.3	Approximants and related vowels	94
6.4	Approximants and related consonants	95
6.5	Other approximants	96
6.6	Summary	97
	Notes to Chapter 6	97
	References	97
7	<u>Glottalic and laryngealized consonants</u>	98
7.1	Introduction	98
7.2	Glottalic and laryngealized sounds	99
7.3	Ejectives	101
7.4	Voiceless laryngealized segments	110
7.5	Implosives and voiced laryngealized plosives	111
7.6	Languages with both ejective stops and implosives	115
7.7	Laryngealized sonorants	115
7.8	Diachronic implications	117
7.9	Phonetic explanations for the structure of glottalic systems	117
7.10	Summary of generalizations	120
	Notes to Chapter 7	121
	References	121
8	<u>Vowels</u>	123
8.1	Introduction	123
8.2	Types of vowels	123
8.3	Number of vowels per language	126
8.4	Distinctive vowel qualities	127
8.5	Properties of vowel series	128
8.6	Diphthongs	133
8.7	Summary	134
	Notes to Chapter 8	135
	References	135

9	<u>Insights on vowel spacing</u>	136
9.1	Introduction	136
9.2	Preliminaries	136
9.3	Method	139
9.4	Analysis of defective systems	141
9.5	Conclusions	153
	Notes to Chapter 9	154
	References	155
10	<u>The design of the UCLA Phonological Segment Inventory Database (UPSID)</u>	156
10.1	Introduction	156
10.2	Selection of languages for UPSID	157
10.3	Determining the inventories	160
10.4	Indices and variables	163
10.5	Using UPSID	171
	References	173
	<u>Appendix A: Language lists and bibliography of data sources</u>	174
	1. Genetic listing of languages and outline classification	174
	2. Alphabetic listing of languages with key to sources	177
	3. Bibliography of data sources	183
	<u>Appendix B: Phoneme charts and segment index for UPSID languages</u>	200
	The charts	200
	The index	202
	Vowel symbols and diacritics used in phoneme charts	204
	Segment index	205
	Phoneme charts	263