

## A Phonological History of Chinese

The phonological history of Chinese can be traced back to two main traditions: one starting with the *Qieyun* of 601, and the other starting with the *Zhongyuan Yinyun* of 1324. The former marks the beginning of Middle Chinese, and the latter marks the beginning of Old Mandarin. Both of these systems, as well as reconstructed Old Chinese, should be understood as ideal phonological standards and composite in nature. Until modern times, phonological standards were never based strictly on the phonology of a single dialect. This book provides the first study written in English of the phonological history of Chinese. It provides information about the standard phonological systems for each of the language's major historical periods, drawing on a range of historical materials such as dictionaries, rhyming tables, and poetry, and is a reference book for understanding the key developments in the Chinese sound system.

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*University of Massachusetts Amherst*



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Contents

<i>List of Figures</i>	page xi
<i>List of Tables</i>	xiii
<i>Foreword by William S-Y. Wang 王士元</i>	xxx
<i>Preface</i>	xxxiii
<i>Major Periods of Chinese History</i>	xxxv
<i>Locations of Ancient Capitals of China</i>	xxxvi

<b>Part I The Keys to Traditional Phonology</b>	<b>1</b>
1 An Introduction to Chinese Historical Phonology	3
1.1 Defining Chinese	4
1.2 The Nature of Phonological History	6
1.2.1 Chinese Phonology through Written Record	6
1.2.2 Phonological Categories in Logographic Systems	7
1.2.3 Terminology of Traditional Chinese Phonology	8
1.2.4 Syllable Structure	9
1.2.5 Nonsyllabic Phonological Characteristics	10
1.3 <i>Yùnsū</i> 韻書 ‘Rhyme Dictionaries’	11
1.3.1 The <i>Qìèyùn</i> 切韻 (601)	12
1.3.2 <i>Fǎnqiè</i> 反切	16
1.3.3 <i>Zhíyīn</i> 直音 Notation	19
1.3.4 <i>Shēngdiào</i> 聲調 ‘Tones’	20
1.3.5 <i>Yùnxì</i> 韻系 ‘Rhyme Series’	21
1.4 <i>Yùntú</i> 韻圖 ‘Rhyme Tables (Rhyme Charts)’	22
1.4.1 The Thirty-Six Initials	25
1.4.2 The <i>Qīngzhuó</i> 清濁 System	27
1.4.3 <i>Yīndiào</i> 陰調 and <i>Yángdiào</i> 陽調	29
1.4.4 <i>Děng</i> 等 ‘Division’ and ‘Rank’	30
1.4.5 <i>Kāihé</i> 開合	35
1.4.6 <i>Chóngniǔ</i> 重紐 and <i>Chóngyùn</i> 重韻	36
1.4.7 <i>Sìhū</i> 四呼	38
1.4.8 <i>Wàizhuǎn</i> 外轉 and <i>Nèizhuǎn</i> 內轉	39
1.4.9 <i>Shè</i> 攝 ‘Rhyme Groups’	46
1.4.10 <i>Yīnshēng Yùn</i> 陰聲韻, <i>Yángshēng Yùn</i> 陽聲韻, and <i>Rùshēng Yùn</i> 入聲韻	48
	v

vi	Contents	
1.5	Nonanalytical Source Materials	48
1.5.1	Poem Rhyming	48
1.5.2	Foreign Transcriptions and Sino-Xenic Pronunciation	49
1.5.3	<i>Xiéshēng</i> Characters 諧聲字	50
1.6	The Availability and Reliability of Source Materials	51
1.7	Periodization	54
1.8	Reconstruction	54
1.9	Transcriptions	56
<b>Part II</b>	<b>Old Chinese</b>	<b>57</b>
<b>2</b>	<b>Old Chinese</b>	<b>59</b>
2.1	Introduction	59
2.1.1	The Tibeto-Burman Connection	61
2.1.2	Methodology and Working Principles	61
2.2	Source Materials	62
2.2.1	<i>Shījīng</i> 詩經 Rhyming	63
2.2.2	<i>Xiéshēng</i> Characters 諧聲字	63
2.2.3	Partially Reduplicated Words	65
2.2.4	The <i>Qièyùn</i> 切韻 System	65
2.3	Reconstruction	66
2.3.1	The Reconstruction of Syllable Structures	67
2.3.2	The Reconstruction of Onsets	69
2.3.3	The Reconstruction of Rhymes	78
2.3.4	The Reconstruction of Syllable Structures	97
2.3.5	Recent Advances	99
2.4	Examples of Old Chinese	102
<b>Part III</b>	<b>Middle Chinese</b>	<b>105</b>
<b>3</b>	<b>Middle Chinese: The <i>Qièyùn</i> 切韻</b>	<b>107</b>
3.1	Special Notes on the <i>Qièyùn</i> 切韻 and <i>Fǎnqiè</i> 反切	108
3.1.1	The <i>Fǎnqiè</i> of Rank-III	108
3.1.2	The Information Contained within the <i>Qièyùn</i>	110
3.1.3	Some Main Issues of the <i>Qièyùn</i>	112
3.1.4	A Single System or a Composite System	112
3.1.5	The <i>Qièyùn</i> Rhymes and the Nature of the <i>Yùn</i> 韻	116
3.1.6	The Revisions of the <i>Qièyùn</i> and the Splitting of Rhymes	119
3.2	The Nature of the Rhymes	120
3.2.1	New Approaches	122
3.2.2	A Possible Solution	123
3.3	Complementary and Near-Complementary Relationships	126
3.4	Syllable Structure	128
3.4.1	Suprasegmental Tones	129
3.4.2	Segmentals	130
3.4.3	Initials (I)	131
3.4.4	Medials (M)	132
3.4.5	Main Vowels (V)	133
3.4.6	Codas (E)	134

Contents	vii
3.5 Phonological Characteristics of Middle Chinese	134
3.5.1 The Tripartite Distinction of Stop and Affricate Initials	134
3.5.2 The Labials	135
3.5.3 The Retroflex Stops	135
3.5.4 The Four Ranks (Divisions)	137
3.5.5 The <i>Kāihé</i> 開合 Contrast	141
3.5.6 The Contrast of <i>Chóngniǔ</i> 重紐 Syllables	141
3.5.7 The Contrast of <i>Chóngyùn</i> 重韻 Rhymes	143
3.5.8 Final Types	143
3.6 Modern Evidence of the Phonological Contrasts	146
3.6.1 The Three-Way Contrast of Phonation Types	146
3.6.2 The Coda System	147
3.6.3 The <i>Chóngniǔ</i> 重紐 Contrast	148
3.6.4 The <i>Chóngyùn</i> 重韻 Contrast	148
3.6.5 The Contrast of Rank-III and Rank-IV	150
3.7 Examples of Middle Chinese Phonology	150
4 Middle Chinese: The Tang and Song Dynasties	152
4.1 The Tang Dynasty (618–907)	152
4.1.1 Xuánzàng’s 玄奘 Inscriptions	152
4.1.2 Simplification and <i>Tóngyòng</i> 同用 Marking	154
4.1.3 The New Standard	155
4.1.4 Devoicing of Voiced Stops and Affricates	159
4.1.5 Labiodentalization	160
4.1.6 Later Middle Chinese	162
4.2 The Five Dynasties and Ten Kingdoms (907–960)	163
4.2.1 <i>Ēryā Yīntú</i> 爾雅音圖 (tenth century)	163
4.2.2 Northwest Dialects	165
4.3 Northern Song (960–1127)	166
4.3.1 <i>Guǎngyùn</i> 廣韻 (1008)	166
4.3.2 <i>Jīyùn</i> 集韻 (1039) and <i>Lǐbù Yùnlüè</i> 禮部韻略 (1037)	168
4.3.3 <i>Shēngyīn Chàngè Tú</i> 聲音唱和圖	169
4.3.4 Summary	179
4.4 Southern Song (1127–1297)	180
4.4.1 Hangzhou Dialect	181
4.4.2 The <i>Sìshēng Dēngzǐ</i> 四聲等子	183
4.4.3 The <i>Qièyùn Zhǐzhǎngtú</i> 切韻指掌圖	187
4.4.4 The <i>Qièyùn Zhǐnán</i> 切韻指南	189
4.5 Examples of Tang Poetry	192
<b>Part IV The Beginnings of Mandarin</b>	<b>195</b>
5 The Chinese of the Liao, Jin, and Xixia Dynasties	197
5.1 The Liao Dynasty (916–1125)	197
5.1.1 The Khitan Materials	197
5.1.2 Diphthongization of Middle Chinese Syllables with Coda -k	200
5.1.3 Devoicing of Middle Chinese Voiced Obstruents	201
5.1.4 Labiodentalization	202
5.1.5 The Merger of the Middle Chinese <i>zhī</i> 知 and <i>zhào</i> 照 Initial Series	203
5.1.6 The Loss of the Middle Chinese Stop Codas -p, -t, -k	204

viii	Contents	
	5.1.7 The Status of the Middle Chinese Velar Nasal Initial ŋ-	204
	5.1.8 The Middle Chinese Bilabial Nasal Coda -m	204
	5.1.9 Middle Chinese <i>má</i> -III (麻) Syllables	205
	5.1.10 The Foundations of Mandarin	206
	5.1.11 Examples	206
	5.2 The Jin Dynasty (1115–1234)	207
	5.2.1 The <i>Gǎibìng Wúyīn Jìyùn</i> 改併五音集韻 (1212)	208
	5.2.2 The Jurchen Materials	210
	5.3 The Xixia Dynasty (1038–1227)	215
	5.3.1 The Tangut Script	215
	5.3.2 Phonological Characteristics and Differences of Northern Dialects	225
	<b>Part V A New Standard</b>	<b>229</b>
	<b>6 Old Mandarin: The <i>Ménggǔ Zìyùn</i> 蒙古字韻</b>	<b>231</b>
	6.1 The ʰP’ags-pa Script	234
	6.1.1 Adaptations between Tibetan and ʰP’ags-pa Script	234
	6.1.2 The Syllable Block	238
	6.1.3 The Problems of the Script	238
	6.1.4 Phonological Contrasts That Cannot Be Reflected	240
	6.2 The Phonological System of the <i>Ménggǔ Zìyùn</i> 蒙古字韻	241
	6.2.1 The Fifteen Rhyme Groups	243
	6.2.2 The Phonetic Values of the ʰP’ags-pa Letters	244
	6.2.3 The Spelling of Finals	244
	6.2.4 The Subsystems of Finals	245
	6.2.5 Tonal Marks	246
	6.3 Sound Changes in the Initial System	247
	6.3.1 The Loss of Voiced Obstruents	247
	6.3.2 Labiodentalization of Middle Chinese Bilabial Initials	248
	6.3.3 The Loss of the Middle Chinese <i>yí</i> 疑 ŋ- Initial	248
	6.4 Sound Changes in the Final System	249
	6.4.1 The Medial	249
	6.4.2 The Reduction of the Vowel System	250
	6.4.3 <i>Chóngniǔ</i> 重紐 Reflexes in the <i>Ménggǔ Zìyùn</i>	251
	6.4.4 The Loss of Final Consonant Codas	255
	6.4.5 Diphthongization of Middle Chinese Syllables with Coda -k	255
	6.4.6 The Loss of the Parallel Relationship between <i>yáng</i> and <i>rù</i> Syllables	256
	6.4.7 The Contrast of <i>jan/jen</i> and <i>jaw/jew</i>	257
	6.4.8 The High Central (Apical) Vowel	258
	6.4.9 Vowel Raising	259
	<b>7 Old Mandarin: The <i>Zhōngyuán Yīnyùn</i> 中原音韻</b>	<b>262</b>
	7.1 The Base Dialect	264
	7.1.1 The Influence of Southern Mandarin	268
	7.2 The <i>Zhèngyǔ Zuòcí Qǐlì</i> 正語作詞起例	270
	7.2.1 Dialect Features	270
	7.3 The Phonetic Reconstruction	272
	7.3.1 Initials (21)	272
	7.3.2 Finals (47)	276



Contents	ix
7.4 Innovative Characteristics of the <i>Zhōngyuán Yīnyùn</i> 中原音韻	278
7.4.1 Devoicing of the Middle Chinese Voiced Obstruents in the Initial Position	279
7.4.2 The Emergence of the Labiodental Fricative	279
7.4.3 The Development of the High Central (Apical) Vowels	281
7.4.4 The New Four-Tone System	282
7.4.5 The Loss of the Middle Chinese <i>yí</i> 疑 Velar Nasal Initial	285
7.4.6 The Disappearance of the Four-Rank System of Finals	286
7.4.7 The Preservation of the -m Coda	290
7.4.8 The <i>jiān-tuán</i> 尖團 Distinction	290
7.5 Examples of Yuan Pronunciation	291
7.6 Summary	293
8 Old Mandarin: The Persian Transcriptions	294
8.1 The Ancient Persian Script	294
8.2 <i>History of China</i>	295
8.2.1 Middle Chinese Voiced Stops and Affricates	296
8.2.2 The Loss of Velar Nasal Initial <i>yí</i> 疑 $\eta$ -	296
8.2.3 Middle Chinese <i>rì</i> 日 Initial	298
8.2.4 Middle Chinese <i>wēi</i> 微 Initial	299
8.2.5 The Coda of <i>rù</i> 入 Syllables	300
8.2.6 High Centralized (Apical) Vowels	301
8.2.7 Main Vowel -e	301
8.2.8 Summary of Features	302
8.3 The <i>Mài Jué</i> 脈訣	302
8.3.1 The Stop Codas of the <i>rù</i> 入 Syllables	304
8.3.2 The Inconsistency of the Stop Coda in the Transcription	306
8.3.3 The Dialectal Features Reflected in the Transcription	307
8.3.4 The Nebulous Nature of Early <i>Guānhuà</i> 官話	313
<b>Part VI Toward Modern Mandarin</b>	<b>317</b>
9 The Mandarin of the Ming Dynasty	319
9.1 North Versus South	319
9.1.1 <i>Guānhuà</i> 官話	320
9.2 The <i>Hóngwǔ Zhèngyùn</i> 洪武正韻 (1375)	320
9.2.1 Initials	322
9.2.2 Finals	322
9.2.3 Tones	323
9.2.4 A Coherent System	325
9.2.5 <i>Zhèngyīn</i> 正音 and <i>Súyīn</i> 俗音	325
9.2.6 Revision of the <i>Hóngwǔ Zhèngyùn</i>	326
9.3 The <i>Yùnlüè Yītōng</i> 韻略易通 (1442)	327
9.3.1 Initials and the <i>Zǎo Méi</i> 早梅 ‘Early Plum Blossom’ Poem	328
9.3.2 Finals and the Twenty Rhyme Groups	329
9.3.3 <i>Běnwù</i> ’s 本悟 Revision	331
9.3.4 Tones	333
9.4 The <i>Sìshēng Tōngjiě</i> 四聲通解 (1517), <i>Fānyì Lǎo Qǐdà</i> 翻譯老乞大, and <i>Fānyì Piáo Tōngshì</i> 翻譯朴通事	334
9.4.1 Initials	335

x	Contents	
	9.4.2 Finals	336
	9.4.3 Tone Sandhi	340
9.5	The <i>Xīrú Ērmù Zī</i> 西儒耳目資 (1626)	342
	9.5.1 Initials	342
	9.5.2 Finals	345
	9.5.3 Tones	349
9.6	The <i>Děngyùn Tújīng</i> 等韻圖經 (1606)	350
	9.6.1 Initials	350
	9.6.2 Finals	355
	9.6.3 Tones	356
	9.6.4 Innovative Features	356
10	The Mandarin of the Qing Dynasty and the Modern Era	360
10.1	The Qing Dynasty (1644–1912)	360
	10.1.1 The <i>Yùdìng Pèiwén Yùnfǔ</i> 御定佩文韻府 (1711)	361
	10.1.2 The <i>Yīnyùn Chǎnwēi</i> 音韻闡微 (1728)	366
	10.1.3 The Wade Textbook (1867)	369
10.2	Post-Imperial China (1912–present)	377
	10.2.1 The Old National Standard	377
	10.2.2 The New National Standard	378
	10.2.3 Modern Standard Phonology	379
	10.2.4 Modern Dialects ( <i>Fāngyán</i> 方言)	379
	<i>References</i>	385
	<i>Index</i>	395

# Figures

1.1 A page from the <i>Kānmiù Bǔquē Qièyùn</i> 刊謬補缺切韻.	page 13
1.2 The first table in the <i>Yùnjìng</i> 韻鏡 ‘Mirror of Rhymes’, one of the earliest rhyme tables.	24
1.3 A page from the <i>Sishēng Dēngzǐ</i> 四聲等子.	32
1.4 The <i>Yùnjìng</i> pages for the rhymes <i>dōng</i> 東, <i>dōng/zhōng</i> 冬/鍾, and <i>jiāng</i> 江, and their <i>zè</i> 仄 tone equivalents.	40
2.1 Baxter and Sagart’s representation of the Old Chinese root.	100
3.1 Middle Chinese (and Modern Mandarin) syllable structure.	128
4.1 A page from the Ze-Cun-Tang version ( <i>Zécúntáng běn</i> ) of the <i>Guǎngyùn</i> 廣韻.	167
4.2 Two pages from the <i>Sishēng Dēngzǐ</i> , showing the merger of the syllables of the <i>dōng</i> 東, <i>dōng</i> 冬, and <i>zhōng</i> 鍾 rhyme series.	184
4.3 The first table in the <i>Qièyùn Zhǐzhǎngtú</i> 切韻指掌圖.	188
4.4 The first page of the tables in the <i>Qièyùn Zhǐnán</i> 切韻指南.	190
4.5 A page from the <i>Qièyùn Zhǐnán</i> , showing the <i>Ménfǎ Yù'àoshì</i> 門法玉鑰匙.	191
5.1 A rubbing from the <i>Dào zōng āi cè</i> 道宗哀冊.	199
5.2 The titles of <i>Yélǜ Gù</i> 耶律固.	207
5.3 A page from the <i>Zhǎng Zhōng Zhū</i> 掌中珠.	217
6.1 A page from the <i>Méngǔ Zìyùn</i> 蒙古字韻.	232
6.2 A comparison of the Tibetan and ḥP’ags-pa scripts.	235
6.3 A vowel chart demonstrating vowel raising in the Yuan era.	260
7.1 A page from the <i>Zhōngyuán Yīnyùn</i> 中原音韻.	263
7.2 A page from the second part of the <i>Zhèngyǔ Zuòcí Qǐlì</i> 正語作詞起例.	271
8.1 A page of the <i>Mài Jué</i> 脈訣.	303
9.1 A page from the <i>Hóngwǔ Zhèngyùn</i> 洪武正韻 ( <i>Sikù Quánshū</i> 四庫全書 version).	321
9.2 A page from the <i>Lǎo Qīdà Yànjǐě</i> 老乞大諺解.	343
9.3 Two pages from the <i>Xīrú Ěrmù Zī</i> 西儒耳目資.	344

xii	List of Figures	
10.1	The first three pages of the <i>Pèiwén Yùnfǔ</i> 佩文韻府 ( <i>Sikù Quánshū</i> version).	363
10.2	The first page of the <i>Yīnyùn Chǎnwēi</i> 音韻闡微 ( <i>Sikù Quánshū</i> version).	367
10.3	The cover of 語言自邇集 <i>Yü-yen tzŭ-êrh chi</i> .	370

Tables

1.1	Additional syllable terms with their component segments	page 10
1.2	Tone sandhi in modern Beijing dialect	11
1.3	Illustration of the <i>Qièyùn</i> structure, as excerpted from the <i>Kānmù Bǔquē Qièyùn</i>	14
1.4	The representative characters of each rhyme of the <i>Qièyùn</i>	15
1.5	The structure of <i>fānqiè</i> spellers	17
1.6	An example of the <i>fānqiè</i> system	17
1.7	The pronunciation of <i>zhuāng</i> 樁 ‘stake’ throughout history	19
1.8	More examples of <i>fānqiè</i> spellings that are obsolete in Modern Standard Mandarin	19
1.9	The basic syllable structure with the medial broken down into its component parts	19
1.10	Categorical combinations realized differently phonetically	20
1.11	The four tones of Middle Chinese, with <i>píng-zè</i> and <i>shū-cù</i> tones demarcated	21
1.12	Rhyme series with both nasal and nonnasal <i>píng</i> tone endings	21
1.13	An example of allophonic variants of the columns of rhyme tables	25
1.14	The thirty-six initials in the <i>Qīyīn Lǜè</i> , with their reconstructions	25
1.15	The reconstructed values of three groups of the syllables from the thirty-six initial characters	26
1.16	A comparison of the initial characters and their categorical terminologies	26
1.17	Definitions and categorizations of the <i>Jīngshǐ Zhèngyīn Qièyùn Zhǐnán</i>	27
1.18	Categories in the <i>Yùnjìng</i> directly compared to their modern phonemic analogues	27
1.19	An analysis of the four groups of <i>qīngzhuó</i> patterns	28
1.20	The eight tones divided along traditional tonal categories and the <i>yīndiào–yángdiào</i> distinction	29

xiv List of Tables

1.21	The eight register-tones as commonly labelled in Chinese phonology	29
1.22	The names and Middle Chinese representations of Mandarin tones	30
1.23	Divisions reflected in their reconstruction through similar vowels or through different medials	31
1.24	Divisions reflected in their reconstruction through different initials	33
1.25	Divisions allowed among each initial group	33
1.26	Subdivision of <i>zhào</i> 照 initials into <i>zhào-èr</i> 照二 initials and <i>zhào-sān</i> 照三 initials	34
1.27	The relationship between divisions and ranks	34
1.28	The relationship between the <i>Qièyùn</i> and rhyme tables (Rank-III rhymes)	34
1.29	Division placements of syllables of the Rank-III <i>yáng</i> 陽 rhyme	35
1.30	Division placements of syllables of the Rank-III <i>zhī</i> 支 rhyme	35
1.31	A comparison of rhyme groups in the <i>Qièyùn</i> and <i>Guǎngyùn</i> , showing a rhyme split along the <i>kāihé</i> contrast	35
1.32	A comparison of the classification of <i>kāihé</i> in the <i>Yùnjìng</i> and the <i>Gǔjīn Zīyīn Duìzhào Shǒucè</i>	36
1.33	The four <i>kāihé</i> labeled tables in the <i>Yùnjìng</i>	36
1.34	Examples of the <i>sīhū</i>	38
1.35	The medial systems of Middle Chinese and the <i>sīhū</i>	39
1.36	The division assignments of different rhymes within the rhyme groups ( <i>shè</i> ), divided by their <i>zhuǎn</i>	43
1.37	The vowel quality of rhymes in the <i>nèizhuǎn</i> and <i>wàizhuǎn</i> rhyme groups, according to Luó Chángpéi	43
1.38	The phonetic values of <i>nèizhuǎn</i> and <i>wàizhuǎn</i> rhyme groups, according to the phonetic components of the Zhuang characters	45
1.39	A summary of the long and short vowels in Table 1.38	45
1.40	A summary of the long and short vowels in Table 1.37	46
1.41	The sixteen <i>shè</i> with their basic main vowels and codas	47
1.42	The <i>shè</i> system systematically categorized into different vowel-coda pairings	47
1.43	The parallel structure of <i>Rùshēng Yùn</i> and <i>Yángshēng Yùn</i> seen through a comparison of their codas	48
1.44	The <i>xiéshēng</i> characters of <i>gōng</i> 工	51
1.45	A grading of different source materials by six categories in historical phonology	53
1.46	The availability of different source materials for the study of the major historical periods	53

List of Tables	xv
1.47 A generalization of the phonological information available at each period of Chinese phonological history	54
1.48 An example of the reconstruction format, using the character <i>luò</i> 落	56
2.1 The periodization of Old Chinese associated with different Chinese dynasties	60
2.2 The four language families, and some of their constituent languages, in the Sino-Tibetan language family	60
2.3 Some poems from the <i>Shījīng</i>	64
2.4 Examples from the <i>gōng</i> 工, <i>chéng</i> 成, <i>mén</i> 門, <i>jiān</i> 監, and <i>měi</i> 每 <i>xiéshēng</i> series	65
2.5 Examples of partially reduplicated words	66
2.6 Two analyses of Chinese syllable structure	67
2.7 A common analysis of an Old Chinese syllable	68
2.8 Reconstructions exemplifying the varied syllable structure of Old Chinese, with as many as six segments CCCVCC	68
2.9 Li Fang-Kuei's reconstruction system (thirty initials)	69
2.10 Baxter's reconstruction system (thirty-seven initials)	69
2.11 Zhèngzhāng's reconstruction system (twenty-five initials)	70
2.12 The nineteen universal initials seen throughout Old Chinese reconstructions	70
2.13 Some characters with component <i>bā</i> 巴, categorized by Middle Chinese initial	71
2.14 <i>Xiéshēng</i> characters from the <i>gè</i> 各 and <i>jiān</i> 監 components	71
2.15 Jaxontov's reconstruction of several words with their cognates	72
2.16 Li Fang-Kuei's reconstruction of <i>gè</i> 各 component <i>xiéshēng</i> characters	72
2.17 A summary of Li Fang-Kuei's explanation of the -r- medial being responsible for the creation of the retroflex series	73
2.18 Jaxontov's reconstructions of sC- clusters across different nasals and approximants	74
2.19 Li Fang-Kuei's initial reconstruction of <i>cì</i> 賜 'bestow' and <i>xiē</i> 楔 'wedge' as alveolar and palatal stop consonant initials, respectively	74
2.20 Zhèngzhāng's reconstruction of sC- and hC- clusters	75
2.21 Li Fang-Kuei's reconstruction of voiceless nasals and laterals	75
2.22 Jaxontov's examples of three types of syllables with l- and syllables from Rank-II with other initials	76
2.23 Jaxontov's examples of syllables with l- and syllables from Rank-IIIb with other initials	77
2.24 Some examples of Old Chinese rhyme groups ( <i>yùnbù</i> )	78

xvi List of Tables

2.25	The <i>yùnbù</i> of Old Chinese arranged according to three types of codas	79
2.26	Some of Kǒng Guǎngsēn's paired <i>yīn-yáng</i> rhymes with their reconstructions	79
2.27	Dài Zhèn's suggested relationship between the <i>yīn</i> , <i>yáng</i> , and <i>rù</i> 入 syllables	80
2.28	The <i>xiěshēng</i> components of the rhyme groups <i>zhī bù</i> 之部, <i>zhí bù</i> 職部, and <i>zhēng bù</i> 蒸部	80
2.29	The possible combinations of medials in Middle Chinese, and their respective <i>kāihé</i> and rank	81
2.30	The four rhyme patterns listed by Jaxontov	82
2.31	Jaxontov's proposal	82
2.32	The frequency of <i>Qièyùn</i> rhymes (ignoring tone) by their rank	83
2.33	Rank-III syllables in the Taishun dialect	84
2.34	<i>Go-on</i> and <i>kan-on</i> readings of Rank-III characters	85
2.35	More examples of <i>go-on</i> readings lacking palatal glides otherwise seen in <i>kan-on</i>	85
2.36	Length contrast and vowel quality in Chinese dialects	85
2.37	The <i>fānqiè</i> spellings of Rank-III syllables	86
2.38	Karlgren's fourteen reconstructed vowels	87
2.39	Li Fang-Kuei's four-vowel system	88
2.40	Baxter's six-vowel system	89
2.41	Zhèngzhāng's six-vowel system	89
2.42	A comparison of -ŋ coda syllables in Li Fang-Kuei's four-vowel system and Zhèngzhāng's six-vowel system.	90
2.43	Relationship between tones in Middle Chinese and coda clusters in Old Chinese	91
2.44	Rhyming words in the <i>Shījīng</i> and <i>Chǔcí</i>	91
2.45	Zhèngzhāng's suggested tones that coexisted with different finals	92
2.46	Basic words in the <i>shǎng</i> tone	93
2.47	Middle Chinese <i>qù</i> syllables with -s coda in Sino-Korean	94
2.48	Sanskrit -s and -ṣ transcribed by using <i>qù</i> tone syllables	94
2.49	Middle Chinese <i>qù</i> tone characters used to transcribe syllables with a stop coda in Sanskrit transcription	94
2.50	<i>Xiěshēng</i> characters with <i>qù</i> tone and <i>rù</i> tone	94
2.51	More examples of rhymes <i>jì</i> 祭, <i>tài</i> 泰, <i>guài</i> 夬, and <i>fèi</i> 廢	95
2.52	The reconstructed earlier forms of <i>jì</i> 祭, <i>tài</i> 泰, <i>guài</i> 夬, and <i>fèi</i> 廢	95
2.53	Reconstructed finals of <i>jì</i> 祭, <i>tài</i> 泰, <i>guài</i> 夬, and <i>fèi</i> 廢 for Old Chinese and Middle Chinese	95



List of Tables	xvii
2.54 Examples of -s functioning as a morphological particle	96
2.55 Further examples of the morphological function of -s with different characters	96
2.56 A summary of the relationship between the codas and tones	97
2.57 A comparison of two-way and three-way contrast for the alveolar codas	97
2.58 Morphologically related pronoun pairs	98
2.59 Some examples illustrating the devoicing regular-causative pattern in Old Chinese	98
2.60 Baxter and Sagart's reconstruction of Type A and B syllables	100
2.61 Nonpharyngealized Old Chinese initial alveolar stops and nasals and Middle Chinese palatal affricates and nasals	101
2.62 The Old Chinese onsets with initial or medial *r and Middle Chinese retroflex initials	101
2.63 The Old Chinese nasal pre-initial and Middle Chinese voiced stops and affricates	101
2.64 Correspondence table between Pān's uvular proposal (uvulars and velars) for Old Chinese, and the Middle Chinese reflexes	102
2.65 The reconstructions of various stages of Chinese, reflecting the original Old Chinese pronunciation of <i>Jīng Nǚ</i> 靜女	103
2.66 The reconstructions of various stages of Chinese, reflecting the original Old Chinese pronunciation of <i>Táo Yāo</i> 桃夭	103
3.1 Evidence of codas -m, -n, -ŋ and -p, -t, -k in the <i>Qièyùn</i> system	108
3.2 The <i>fānqiè</i> spellings and Middle Chinese reconstruction for Rank-III syllables, with the lower speller of <i>jū</i> 居 or <i>yú</i> 魚	109
3.3 Karlgren and his successors' reconstructions	109
3.4 Upper spellers of Rank-III and non-Rank-III characters	109
3.5 The divisional placement of the <i>Qièyùn</i> rhymes in the rhyme tables	110
3.6 The divisional placement of the Rank-III syllables of the <i>Qièyùn</i> in the rhyme table <i>Yùnjìng</i>	111
3.7 The nature of the <i>Qièyùn</i> rhymes	115
3.8 The parallel nature of rhymes across different tones	116
3.9 195 rhymes from Wáng Rénxù's version of the <i>Qièyùn</i>	117
3.10 Pān's reconstruction organized in table style	117
3.11 Main vowels and medials of Pān's reconstruction	118
3.12 Pān's reconstructed main vowels organized by medial	118
3.13 The rhyme splits between the <i>Qièyùn</i> , <i>Kānmiù Bǔquē Qièyùn</i> , and <i>Guǎngyùn</i>	119
3.14 Rhyme splitting from the <i>Kānmiù Bǔquē Qièyùn</i> to the <i>Guǎngyùn</i>	120

xviii List of Tables

3.15	Samples of two different approaches (Mài 1995; Pān 2000)	121
3.16	An example of Mài's reconstruction of Middle Chinese rhymes	121
3.17	The Main Vowel Approach and the Medial Approach to <i>yùn</i> 韻 analysis	123
3.18	Rhyme categories of Yán Zhītuī's <i>Guān Wǒ Shēng Fù</i>	123
3.19	An interpretation of Lù Fǎyán's judgments	124
3.20	Examples of the rhymes that split or not along the medial difference	125
3.21	The <i>zhēn</i> 真 rhyme and the <i>zhēn</i> 臻 rhyme are in complementary distribution	126
3.22	The type-distribution of Rank-III rhymes	127
3.23	The relationship between the <i>gēng</i> -III 庚三 and <i>qīng</i> 清 rhyme series	127
3.24	The relationship between the <i>yōu</i> 幽 and <i>yóu</i> 尤 rhyme series	127
3.25	A basic outline of the syllable structure as analyzed from the <i>Qièyùn</i>	128
3.26	Simplification of the Chinese syllable structure	129
3.27	The parallelism of reconstructed pronunciations categorized by tone	130
3.28	The Chinese-Sanskrit transcriptions in the <i>Yíqiè Jīng Yīnyì</i> by Buddhist monk Huìlín	130
3.29	Some descriptions of tones in the <i>Xī Tán Zàng</i> by the Japanese monk Annen	131
3.30	The sporadic organization of initials in different rhymes	132
3.31	Pān's reconstruction of thirty-seven initials	133
3.32	An example of the twelve-vowel system needed to maintain non-medial based rhyme differentiation	134
3.33	Three phonation types of stops and affricates for each place of articulation	135
3.34	The labial series before the split	136
3.35	Sanskrit letters for retroflex stops and nasals and corresponding <i>zhī</i> 知 initial series characters	136
3.36	The retroflex obstruent and nasal syllables in Sanskrit and the corresponding Chinese characters	137
3.37	The coexistence of retroflex and palatal affricates, and retroflex stops	137
3.38	The changes of grave and acute initials, and the -r- of Old Chinese	138
3.39	The four ranks of the <i>xiào</i> 效 rhyme group, illustrating Karlgren's reconstruction the four ranks of the <i>Guǎngyùn</i>	138
3.40	Karlgrén's reconstruction in terms of medials and main vowels	138

List of Tables	xix
3.41 Redundancy in criteria for distinguishing the syllables of the four ranks	139
3.42 The relationship between the four ranks as related to the medials -w- and -j-	139
3.43 Simpler main vowels reconstructed phonemically	140
3.44 Calculations of the prevalence of the rank of upper spellers for Rank-III characters in the <i>Qièyùn</i>	140
3.45 The complementary distribution of syllables with labial initials in rhymes with -n coda	141
3.46 Sino-Sanskrit proof of the existence of the medial -r- in IIIb characters	142
3.47 Examples of <i>chóngniǔ</i> contrasts across all eight rhymes that contain them	142
3.48 The traditional <i>chóngyùn</i> rhymes	143
3.49 Some samples of the reconstructed phonetic values of the <i>chóngyùn</i> pairs	144
3.50 A series of minimal pairs, exemplifying a difference in the manner of articulation of the coda	144
3.51 The parallel relationship between syllables with a nasal coda and syllables with a stop coda	145
3.52 Rhymes <i>jì</i> 祭, <i>tài</i> 泰, <i>guài</i> 夬, and <i>fèi</i> 廢 with no equivalent <i>píng</i> and <i>shǎng</i> tone rhymes	145
3.53 A comparison of the Beijing, Suzhou, Wenzhou, and Shuangfeng dialects, highlighting the maintenance of a three-way phonation type contrast in the Wu and Xiang dialects	147
3.54 A comparison of the Beijing, Suzhou, Guangzhou, and Yangjiang dialects, highlighting different coda systems, each descended from Middle Chinese, maintaining different contrasts, and merging others	147
3.55 An example of <i>chóngniǔ</i> contrast reflexes	148
3.56 Some examples of the <i>chóngyùn</i> contrast of Rank-I rhymes <i>hāi</i> 哈 and <i>tài</i> 泰	149
3.57 The <i>chóngyùn</i> contrast between the <i>yú</i> 魚 and <i>yú</i> 虞 rhyme groups in the Wu dialects	149
3.58 The contrast between Rank-III and -IV in the Wu dialects	150
3.59 The reconstructed Middle Chinese pronunciation of <i>Qiǎn Zi Wén</i>	151
3.60 The reconstructed Middle Chinese pronunciation of <i>Běi Zhǔ</i>	151
4.1 Reconstructions of Xuánzàng's transliterations	153

xx List of Tables

4.2	The rhyming words in poems composed during the imperial examinations before the year 717	155
4.3	The twelve -ŋ coda rhymes of the <i>Qièyùn</i>	155
4.4	The seven groups according to <i>tóngyòng</i> labels	155
4.5	The twelve rhymes in the <i>Qièyùn</i> system with -n coda	155
4.6	The additional <i>tóngyòng</i> of <i>wén</i> 文 and <i>yīn</i> 殷, added in 1037	156
4.7	All <i>tóngyòng</i> rhymes, organized by coda	156
4.8	A rhyme chart arranged according to <i>tóngyòng</i> markings	157
4.9	The values of <i>Qièyùn</i> and post-717 Tang poetry rhymes	158
4.10	The relationship between the phonetic, phonemic, and rhyming systems of Tang-era Middle Chinese	159
4.11	The progression of devoicing across Tang-era Northwestern Chinese dialects	159
4.12	The Tang era Chinese three-way contrast within labiodental sounds, reconstructed as f-, v-, and m-, respectively	160
4.13	The labiodentalization of labials preceding the medial -j- in Tang-era Chinese	161
4.14	The labiodental fricatives realized as /f/ and /v/ in Sino-Vietnamese	161
4.15	The distinction of Early and Late Middle Chinese in Pulleyblank's reconstruction	162
4.16	The distribution of <i>Qièyùn</i> initials in the <i>Ēryǎ Yīntú</i>	164
4.17	The devoicing pattern in the <i>Ēryǎ Yīntú</i>	164
4.18	The twelve <i>Yīn Tú</i> tables, with their respective reconstructed initials for each row's gaps	170
4.19	The twenty-one initials of the <i>Shēngyīn Chànghè Tú</i>	170
4.20	Shào Yōng's assignment of bh- initials resembles Indic phonology	171
4.21	The relationship between voiced <i>píng</i> and voiced <i>zè</i> syllables	171
4.22	The complementary distribution of labiodentals across tones	172
4.23	The distribution of labiodentals in the <i>Shēngyīn Chànghè Tú</i> , categorized by Middle Chinese initial and tone	172
4.24	A comparison of different texts' reconstructions of the bilabial and labiodental series, showcasing the evolution of the series from Middle Chinese to Modern Mandarin	173
4.25	The seven non-empty <i>Shēng Tú</i> tables, with their respective reconstructed finals for each row	174
4.26	The merger of syllables with -k coda and a back vowel with syllables with -w coda	175
4.27	The merger of syllables with -k coda and a non-back vowel with syllables with -j coda	175

List of Tables	xxi
4.28 The phonological conditions for the reflexes with -w and -j coda	176
4.29 The main vowel of <i>shuāi</i> 衰 and <i>shuài</i> 帥 in Song-era Chinese	176
4.30 A comparison of Middle Chinese -ŋ rhymes and those of the <i>Shēngyīn Chànghè Tú</i>	177
4.31 The simplification of rhymes with -ŋ codas, resulting in a four-way contrast	178
4.32 A final chart of the <i>Shēngyīn Chànghè Tú</i>	178
4.33 The tonal reflexes of Middle Chinese tone II syllables according to different types of initials	179
4.34 The tonal reflexes of Middle Chinese tone II syllables according to different types of initials (tones written in full)	179
4.35 A correspondence table between Middle Chinese, the Chinese of the <i>Shēngyīn Chànghè Tú</i> , and Modern Mandarin	180
4.36 Láng Yīng's referenced characters	182
4.37 Middle Chinese <i>shǎng</i> tone syllables merge differently both historically and geographically	183
4.38 Chao's noted features in the Hangzhou dialect	183
4.39 The <i>kāihé</i> divide in the <i>jiāng</i> 江 rhyme series	185
4.40 The reflexes of the syllables <i>jiāng</i> 江 rhyme in Modern Mandarin	186
4.41 A comparison of the ordering of tone and division in the <i>Yunjing</i> and <i>Sishēng Dēngzǐ</i>	186
4.42 The double listing of the <i>rùshēng</i> syllables in the <i>Sishēng Dēngzǐ</i>	187
4.43 An allophonic split in the <i>zhī</i> 之 and <i>zhī</i> 支 rhyme series	189
4.44 The reconstructions of Middle Chinese, reflecting the original Tang dynasty Chinese pronunciation of <i>Lù Zhài</i>	193
4.45 The reconstructions of Middle Chinese, reflecting the original Tang dynasty Chinese pronunciation of <i>Xīn Yí Wǔ</i>	193
5.1 Diphthongization of coda -k syllables as shown in Khitan sources	201
5.2 Khitan characters illustrate a Mandarin-like obstruent devoicing pattern	202
5.3 Devoicing as shown in Khitan materials	202
5.4 Labiodentalization of <i>phu</i> in Sino-Khitan	203
5.5 Initial series, <i>zhī</i> 知 and <i>zhào</i> 照, merge in Sino-Khitan	203
5.6 The loss of stop codas in Sino-Khitan	204
5.7 Velar nasals in the onset position of Sino-Khitan	205
5.8 Nasal codas' three-way distinction in Sino-Khitan	205
5.9 Conditioned vowel raising after a palatal glide in Sino-Khitan	206
5.10 A multidialectal gloss of the titles of Yélǚ Gù	208

xxii	List of Tables	
5.11	Examples of different rhymes merging in the <i>GYJ</i>	209
5.12	Rank and <i>chóngniǔ</i> mergers during the Jin dynasty	210
5.13	A comparison of mergers across three texts before, during, and after the Jin dynasty	210
5.14	Diphthongization of coda -k syllables as shown in Jurchen sources	211
5.15	Diphthongization of coda -k causes mergers between <i>rù</i> and non- <i>rù</i> syllables	212
5.16	Devoicing patterns in Sino-Jurchen as a comparison of <i>píng</i> tone characters	213
5.17	The labiodentalization process of Sino-Jurchen	213
5.18	Obstruent coda loss in Sino-Jurchen	214
5.19	The velar nasal in the onset position of Sino-Jurchen	214
5.20	Nasal codas' three-way distinction in Sino-Jurchen	215
5.21	The initial system of Sino-Tangut	216
5.22	The Sino-Tangut vowel system	218
5.23	Obstruent devoicing across different tones in Sino-Tangut	219
5.24	Voiced and voiceless fricatives merge in Sino-Tangut	219
5.25	The labiodentalization process of Sino-Tangut	220
5.26	Initial series, <i>zhī</i> 知 and <i>zhào</i> 照, merge in Sino-Tangut	221
5.27	The loss of stop codas in Sino-Tangut	222
5.28	No velar nasal coda transcribed in Sino-Tangut	223
5.29	Tangut words transcribed by syllables both with and without velar nasal coda	223
5.30	The loss of nasal codas in Sino-Tangut	223
5.31	High front vowels of Middle Chinese <i>zhī</i> 支, <i>zhī</i> 脂, and <i>zhī</i> 之 rhyme undergo a conditioned centralization in Sino-Tangut	224
5.32	A comparison of five modern Fenghe dialects	226
5.33	A comparison of northern and northwestern dialect sound changes	227
6.1	The <i>Méngǔ Zìyùn</i> as a fusion of previous works	233
6.2	A comparison of syllable creation in Tibetan and ḥP'ags-pa script	235
6.3	Non-consonantal alloglyphs	236
6.4	The realization of different FT/vowel combinations in ḥP'ags-pa script	237
6.5	The realization of ḥP'ags-pa finals in different locations	237
6.6	Types of syllable blocks for transcribing Chinese characters	239
6.7	Differences across the orthographic-phonological interface	240
6.8	Transcription of <i>dōng</i> 東 and <i>gēng</i> 庚 rhyme groups	241

List of Tables	xxiii
6.9 The thirty-six initial characters with their ɣP'ags-pa equivalents, enumerated	242
6.10 Three <i>zīmǔ</i> split according to their allophonic variations	243
6.11 The fifteen rhyme groups of the <i>Ménggǔ Ziyùn</i>	243
6.12 An example of the initial arrangement pattern in the <i>Ménggǔ Ziyùn</i>	244
6.13 The thirty-two initial sounds of the <i>Ménggǔ Ziyùn</i>	245
6.14 Phonetic values of the finals in the fifteen rhyme groups	246
6.15 ɣP'ags-pa spellings of the transcriptions in Table 6.14	246
6.16 Vowels of the <i>Ménggǔ Ziyùn</i>	247
6.17 The vowel-coda subsystem of the <i>Ménggǔ Ziyùn</i>	247
6.18 No tonal distinction in ɣP'ags-pa transcriptions	247
6.19 The voicing reversal of stop initials	248
6.20 Labiodentalization in the <i>Ménggǔ Ziyùn</i>	248
6.21 Conditional loss of Middle Chinese initial ɳ-	249
6.22 Differences in the realization of medials depending on <i>kāihé</i>	249
6.23 Changes to the Middle Chinese medial -uɣ- in different contexts	250
6.24 Vowel Reduction in the <i>Ménggǔ Ziyùn</i> from the Middle Chinese final system	251
6.25 The phonetic values of -Vɳ/-Vk finals before and after the <i>Ménggǔ Ziyùn</i> 's vowel reduction	251
6.26 Type A and Type B rhyme groups	252
6.27 <i>Chóngniǔ</i> contrasts maintained between Rank-III and Rank-IV	252
6.28 More examples showing the contrast of IIIa and IIIb syllables	253
6.29 A summary of <i>chóngniǔ</i> reflexes	253
6.30 The <i>chóngniǔ</i> reflexes of Type A and Type B rhyme groups	254
6.31 Diphthongization of syllables with Middle Chinese coda -k	256
6.32 Middle Chinese -k syllable changes and their rules	257
6.33 Change of relationship between <i>yáng</i> and <i>rù</i> syllables	257
6.34 The contrast between the finals of Rank-II and Rank-III/IV syllables	258
6.35 The changes between the Chinese of the <i>Ménggǔ Ziyùn</i> and Modern Mandarin, with the data from Table 6.34 reorganized as examples of each change	259
6.36 Centralization of high vowels in the <i>Ménggǔ Ziyùn</i>	259
6.37 A set of rules determining vowel raising in Yuan-era Mandarin	260
7.1 A comparison of the arrangement of the <i>Qiyùn</i> , <i>Ménggǔ Ziyùn</i> , and <i>Zhōngyuán Yīnyùn</i>	264

xxiv	List of Tables	
7.2	All the rhyme groups of the <i>Zhōngyuán Yīnyùn</i>	264
7.3	Middle Chinese <i>rù</i> tone syllables found in the <i>xiāoháo</i> rhyme group	265
7.4	Some characters that maintain the -aw reflex from Dadu dialect	266
7.5	The presence and absence of -w coda in the relevant modern dialects	266
7.6	A comparison of rhyme-ending realizations between the <i>Zhōngyuán Yīnyùn</i> , and the modern Luoyang and Beijing dialects	267
7.7	The irregular changes of modern Luoyang and Beijing dialects	267
7.8	Contrast of -on and -wan in the <i>Zhōngyuán Yīnyùn</i>	268
7.9	A comparison of rank contrast across many modern dialects	269
7.10	Dual pronunciation of some Chinese characters	269
7.11	Characteristics of different Mandarin subdialects during the Yuan era	270
7.12	Some contrasts listed by Zhōu Déqīng in the <i>Zhōngyuán Yīnyùn</i>	273
7.13	The initial system of the <i>Zhōngyuán Yīnyùn</i>	274
7.14	Minimal triplets imply a three-way contrast	274
7.15	A comparison of different hypotheses for the value of the retroflex series	275
7.16	Reconstructed values of finals in the <i>Zhōngyuán Yīnyùn</i> , organized by rhyme group	276
7.17	A comparison of the vowel systems of the <i>Zhōngyuán Yīnyùn</i> and <i>Ménggǔ Ziyùn</i>	277
7.18	Summary of the vowel system in the <i>Zhōngyuán Yīnyùn</i>	277
7.19	The vowel system of the <i>Zhōngyuán Yīnyùn</i> before null and -n codas	278
7.20	The vowel system of the <i>Zhōngyuán Yīnyùn</i> before -ŋ coda	278
7.21	Devoicing pattern of Middle Chinese voiced stops and affricates	279
7.22	The <i>Zhōngyuán Yīnyùn</i> demonstrates a merger of voiced and voiceless unaspirated stops and affricates	280
7.23	The merger of labiodental fricatives	280
7.24	The merger of three labial stops in <i>qù</i> syllables	280
7.25	The loss of nasality of the <i>wēi</i> ㄨㄟ- initial	281
7.26	The contrast between the <i>wēi</i> ㄨㄟ- and the <i>yǐng</i> ㄩㄥ- initials	281
7.27	A comparison of the vowels of the Middle Chinese <i>zhǐ</i> 止 rhyme group within <i>zhī</i> 知, <i>zhāng</i> 章, and <i>zhuāng</i> 莊 group initials	281



List of Tables	xxv
7.28 The rhyme and tone of non- <i>zhǐ</i> 止 rhyme group words with vowel -i	282
7.29 Centralization of high vowels in the <i>Zhōngyuán Yīnyùn</i>	282
7.30 The merging and splitting conditions between Middle Chinese and the early Mandarin of the <i>Zhōngyuán Yīnyùn</i>	283
7.31 Mergers of the <i>rù</i> tone with three other tones	284
7.32 Middle Chinese codas are lost and <i>rù</i> tone syllables with different codas merge	285
7.33 Interference between two changes to the Middle Chinese velar nasal initial	285
7.34 Rank-II syllables merged with different finals based on rhyme and place of articulation of the initial	286
7.35 The <i>Zhōngyuán Yīnyùn</i> merge between Rank-III and Rank-IV syllables	286
7.36 A comparison of <i>chóngniǔ</i> contrasts (Middle Chinese IIIa and IIIb) present in reflexes of the <i>Zhōngyuán Yīnyùn</i> and modern Beijing dialect	287
7.37 The contrast of Rank-II and Rank-III syllables in the <i>Zhōngyuán Yīnyùn</i>	288
7.38 The syllables of the <i>chē-zhē</i> rhyme group	289
7.39 A correspondence table showing the Beijing dialect reflexes of the <i>Zhōngyuán Yīnyùn chē-zhē</i> rhyme	289
7.40 Contrasts between the -m and -n coda that remained in the <i>Zhōngyuán Yīnyùn</i>	290
7.41 Contrasts of the <i>jiān-tuán</i> distinction	291
7.42 A four-stage process resulting in the merging of velars and coronals in front of high vowels	291
7.43 The pronunciation of Mǎ Zhìyuǎn's <i>Qīūsī</i> in the Mandarin of the <i>Zhōngyuán Yīnyùn</i> compared with Modern Mandarin	292
8.1 The Persian letters present in the <i>Mài Jué</i> and their IPA values	295
8.2 A comparison of transcriptions of voiceless aspirated and unaspirated Middle Chinese initials into Persian script in various personal names	297
8.3 Persian transcriptions follow the same devoicing pattern present in Mandarin	297
8.4 A loss of the <i>yí</i> 疑 initial is evident in the <i>History of China</i>	298
8.5 Examples highlighting the non-rhotic transcription of the Middle Chinese <i>rì</i> 日 initial in the <i>History of China</i>	298
8.6 Character <i>èr</i> 二 transcribed as a rhotacized vowel	298

xxvi List of Tables

8.7	Different renderings of ʰP'ags-pa u- initial	299
8.8	<i>History of China</i> features a lack of rù syllable stop codas	300
8.9	Rù syllables transcribed with < h > and < q > endings	300
8.10	Transcription of high central vowels	301
8.11	Zero form of vowels -e and -ɛ	301
8.12	A series of rù syllables in the Persian <i>Mài Jué</i> that maintain their coda in transcription	305
8.13	A transcription of the <i>Rènfù Shānghán Gē</i>	305
8.14	Middle Chinese codas and their transcriptions in the Persian <i>Mài Jué</i>	306
8.15	Chinese characters with different transcriptions in the Persian <i>Mài Jué</i>	307
8.16	Phonological attributes of the PMJ-1; contrast with Table 8.17	309
8.17	Phonological attributes of the PMJ-2; contrast with Table 8.16	310
8.18	A comparison of characters across phonological attributes of the Persian <i>Mài Jué</i> , along with modern Beijing, modern Guangzhou, and the dialect of the <i>Zhōngyuán Yīnyùn</i>	311
8.19	A compact generalization of the phonological attributes shown in Table 8.18	312
8.20	A comparison of Beijing and Suzhou dialects, reflecting the differences in rì 日 initial syllables and Rank-II <i>kāikǒu</i> syllables	314
9.1	The thirty-one initials of the <i>Hóngwǔ Zhèngyùn</i>	322
9.2	The relationship between Hangul letters, the intrinsic values of Hangul, and Ming Chinese values	323
9.3	The phonetic values of the finals in the <i>Hóngwǔ Zhèngyùn Yìxùn</i>	324
9.4	A final chart of the <i>Hóngwǔ Zhèngyùn Yìxùn</i>	324
9.5	A comparison of the <i>zhī</i> 支 rhyme before and after the split	327
9.6	A comparison of the modern Beijing and Hefei dialects	327
9.7	<i>Zǎo Méi</i> poem with phonetic values and pinyin	328
9.8	By reorganizing the characters of <i>Zǎo Méi</i> , the initial system of the Ming dynasty is illuminated	329
9.9	Conditional variants of <i>zhī</i> 枝, <i>chūn</i> 春, and <i>shàng</i> 上 initials	329
9.10	Rhyme groups of the <i>Yùnlüè Yītōng</i> and their respective finals	330
9.11	Examples of the mergers in Běnwù's revision	331
9.12	The loss of the palatal medial -j- after retroflex initials	331
9.13	The contrast of the rù syllables in Mandarin dialects	332
9.14	In a retroflex initial environment, -i becomes centralized, and merges with -ǐ syllables	332
9.15	The main vowel system of the <i>Yùnlüè Yītōng</i>	333

List of Tables	xxvii
9.16 A final chart representing the phonological system of the <i>Yùnlüè Yìtōng</i>	333
9.17 The tonal system of the <i>Yùnlüè Yìtōng</i>	333
9.18 <i>Yīnpíng</i> and <i>yángpíng</i> syllables as in the <i>Yùnlüè Yìtōng</i>	333
9.19 The initial system of the <i>Sìshēng Tōngjiě</i>	335
9.20 Some of the exceptional words	336
9.21 The phonetic transcriptions of finals in the <i>Sìshēng Tōngjiě</i>	336
9.22 A final chart of the Chinese phonology based on the Hangul spellings	337
9.23 Rank-III syllables of the <i>tōng</i> 通 rhyme group in the <i>súyīn</i> and the <i>jīn súyīn</i>	338
9.24 The merging of the <i>dàng</i> 宕 and <i>jiāng</i> 江 groups	338
9.25 The change of syllables with final -jaɨ	339
9.26 The change of syllables with final -waw	339
9.27 The merger of Rank-II and Rank-III/IV syllables with coda -n or -m	339
9.28 The merger of Rank-II and Rank-III/IV syllables with coda -w	339
9.29 The merger of Rank-II and Rank III/IV finals conditioned by codas	340
9.30 The change of words with final -iw	340
9.31 Tone sandhi as explained in the <i>Sìshēng Tōngjiě</i>	341
9.32 Tone sandhi for longer phrases	341
9.33 The dialogue as presented in Figure 9.2, with pinyin and gloss	342
9.34 Initials of the <i>Xīrú Ērmù Zī</i>	345
9.35 Initial chart of the <i>Xīrú Ērmù Zī</i>	345
9.36 Some examples of finals transcribed by Trigault	346
9.37 The spellings of each of the fifty final tables as written in the <i>Xīrú Ērmù Zī</i>	346
9.38 The phonetic interpretations of the spellings in the fifty final tables of the <i>Xīrú Ērmù Zī</i>	347
9.39 The phonetic interpretations (fifty-four finals) of the spellings in the fifty final tables of the <i>Xīrú Ērmù Zī</i> , arranged by medial and rime	348
9.40 Phonetic features of central vowels and other relevant vowels	349
9.41 Medials, main vowels, and codas of Trigault's <i>Xīrú Ērmù Zī</i>	349
9.42 The tones of the <i>Xīrú Ērmù Zī</i>	349
9.43 The twenty-two initials given in the <i>Děngyùn Tújīng</i>	350
9.44 The nineteen actual initials of the <i>Děngyùn Tújīng</i>	351
9.45 The merger of k- initial series and ts- initial series	351
9.46 Three possible contrasts between the two initial groups	351

xxviii List of Tables

9.47	The change order of the palatalization from Middle Chinese to Modern Mandarin	352
9.48	The change order of palatalization from Middle Chinese to modern Zhongyuan Mandarin	353
9.49	The centralization of main vowel <i>i</i> after retroflex initials	353
9.50	The change of front vowels after retroflex initials	353
9.51	The loss of palatal medial <i>-j-</i> after retroflex initials	354
9.52	The thirteen rhyme groups of the <i>Děngyùn Tújīng</i>	355
9.53	A comparison of the rhyme groups of the <i>Děngyùn Tújīng</i> and of the <i>Zhōngyuán Yīnyùn</i>	355
9.54	Medials, main vowels, and codas of the <i>Děngyùn Tújīng</i>	356
9.55	Some examples of the <i>zhī</i> 知 and <i>zhào</i> 照 initials merger	357
9.56	Some examples of the <i>wēi</i> 微 and <i>yǐng</i> 影 initials merger	357
9.57	Some examples of the loss of the <i>yí</i> 疑 initial merger	357
9.58	The rounded central vowel of the <i>Děngyùn Tújīng</i>	358
9.59	The change of the rounded central vowel	358
10.1	Examples of the <i>jiān-tuán héliú</i>	361
10.2	The merging process of <i>jiān</i> (ts- group) and <i>tuán</i> (k- group) initials	361
10.3	The complementary distribution of the <i>te</i> -group and other initial groups	361
10.4	An example of the new <i>fǎnqiè</i> method of the <i>Yīnyùn Chǎnwēi</i>	368
10.5	A schematic illustration of the new <i>fǎnqiè</i> method of the <i>Yīnyùn Chǎnwēi</i>	369
10.6	A correspondence table showing a comparison of the <i>Yü-yen tzu-êrh chi</i> with modern pinyin, and accompanying IPA	372
10.7	The orthographical difference of the alveolar and retroflex initials	372
10.8	The retroflex serials and palatal series represented by the same letters, <i>ch</i> and <i>ch'</i>	373
10.9	The <i>Yü-yen tzu-êrh chi</i> finals in comparison with Modern Standard Mandarin in pinyin spelling	374
10.10	The <i>Yü-yen tzu-êrh chi</i> multiple readings of <i>jiǎo</i> 角, <i>què</i> 卻, <i>lüè</i> 略	374
10.11	The <i>Yü-yen tzu-êrh chi</i> multiple readings of <i>jué</i> 爵, <i>què</i> 卻, <i>lüè</i> 略	374
10.12	Labial initial or initial-less syllables with <i>êng</i> finals	375
10.13	The tonal pitch of the four tones described as different intonations	376
10.14	<i>-rh</i> as a suffix of the preceding syllable	376
10.15	Some examples of characters with multiple readings	377

List of Tables	xxix
10.16 The Modern Standard Phonology, as represented by pinyin and IPA	380
10.17 The <i>píng-zè</i> voicing mergers with unvoiced syllables, as represented by p, ph, and b	381
10.18 A schematic representation of the geographical distribution of the devoicing patterns of the major dialect groups	382
10.19 A comparison of colloquial and literary pronunciations of Min Chinese	383

## Foreword by William S-Y. Wang 王士元

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Studies in the history of languages in the West may be dated to the famous lecture in Kolkata by William Jones, when he compared Sanskrit with the classical languages of Europe. Over the ensuing century and a half, the comparative method and internal reconstruction, originating from Indo-European studies, have been increasingly refined and applied to a great diversity of languages across the world. These achievements have become the pride of linguistics as a science.

In contrast, language study in China took a different trajectory, in large part due to the millennia of centralized power structure of the dynastic tradition, maintained through its nonalphabetic writing system. Although a pioneering study of how words differed from region to region was reported several centuries before the Common Era (*Fāngyán* 方言 by Yáng Xióng 揚雄), scholarly attention has always focused exclusively on the Sinitic language of the Central Plain, first recorded in the Oracle Bone Inscriptions three millennia ago. The writing system that has evolved from inscriptions on bone and bronze has remained the exclusive method to represent the language, in spite of the deep influence of Buddhism early in the Common Era, with its original sutras written alphabetically in Sanskrit. Unfortunately, the diversity of hundreds of other languages that covered the Chinese landscape aroused little scientific interest across the dynasties.

The Chinese tradition of language study has always centered on its writing system, dating back some two thousand years to a dictionary of over nine thousand characters (*Shuō Wén Jiě Zì* 說文解字), preferably called ‘sinograms.’ The spoken language, therefore, was studied through various ways of grouping these sinograms according to their pronunciation at the time. A primary purpose of these studies was for the analysis and composition of poetry. An early rime book of some fifteen centuries ago first grouped the sinograms by their lexical tone, then by their initial consonant, and finally by the remainder of the syllable. (See Figure 1.1.)

Several centuries after that, rime tables were developed wherein various phonetic parameters were introduced to describe the consonants and vowels in

xxx

terms of their articulation and perception. (See Figure 1.2.) In this connection, one might note that the science of musical acoustics had flourished much earlier. People in China understood the relations between vibrating bodies and the pitches they produce by the middle of the first millennium before the Common Era – witness the ingenious design of the massive bronze bells that can resonate at two different frequencies according to where they are struck. By around AD 1600, a prince of the Ming dynasty (Zhū Zàiyù 朱載堉) had published the world's first account of the twelve-tone equal temperament scale in terms of the twelfth root of two. Unfortunately, little of this acoustic knowledge carried over to language studies. The vocal tract was never analyzed as an acoustic tube, and experimental phonetics never developed indigenously.

Philological studies in the Chinese tradition reached their zenith in the Qing dynasty, largely motivated by the desire to understand the pronunciations of the poems of the *Shījīng* 詩經, composed three millennia ago. Scholars began to distinguish types of evidence that support various types of conclusions concerning phonetic events that took place over these three millennia, as well as to invent many technical terms beyond the straightforward articulatory descriptors used in the rime tables.

Some of these terms are traditional words given new phonetic meanings, such as *yīn* 陰, *yáng* 陽, *qīng* 清 and *zhuó* 濁; others are more opaque, such as *shè* 攝, *děng* 等, *zhuǎn* 轉, *chóngniǔ* 重紐, and many others. Much information about language change that is of great interest to linguistics at large, beyond Chinese linguistics as a subfield, has not been accessible to international scholarship because of these terminological hurdles. For the first time, Professor Shen Zhongwei's volume promises to change that. His discussion of the phonological history of Chinese draws upon the relevant philological literature in a most effective and lucid fashion, couched in the familiar framework of modern phonetics, so that the lay reader will not become disoriented by the forbidding terminology. This is an important contribution the volume makes toward integrating Chinese linguistic scholarship into international linguistics at large.

By the same token, this volume additionally makes an important contribution in presenting the phonological research of many Chinese scholars, who have primarily published just in Chinese sources, and thus are not easily accessible internationally. In addition to the well-known works of Wáng Lì 王力 of Peking University, Shen also draws upon the contributions of less publicized papers of indigenous scholars such as Lù Zhìwéi 陸志韋, Mài Yún 麥耘, Pān Wùyún 潘悟雲, Yóu Rǔjié 游汝傑, and especially the insightful Zhèngzhāng Shàngāng 鄭張尚芳. Integrated with Western publications, starting with the great Bernhard Karlgren, who introduced the comparative method to China, followed by works of Edwin Pulleyblank, Jerry Norman,

William Baxter, Laurent Sagart, and many others, this volume offers a more balanced account of the varied scholarship in this field.

Another important feature of this volume is the attention it gives to the linguistic interactions in Northern China. Much of the discussion of language contact in China has centered on the South and Southwest, with Tibeto-Burman, Austro-Asiatic, and Austronesian. But such a focus neglects the important linguistic interactions in the North and Northeast. These interactions were especially prominent in the second millennium of the Common Era with the Khitans, Jurchens, Tanguts, Mongols, and Manchus. The latter two peoples overpowered and governed the Hans for many centuries in the Yuan and Qing dynasties respectively. In recent years, Shen has pioneered research in this neglected area with significant findings.

Shen examines these interactions between Altaic and Sinitic in this volume, often providing source materials that greatly facilitate understanding of many unfamiliar issues. As examples, Figure 5.1 is a rubbing from the *Dàozōng Áicè* 道宗哀冊, an example of the Greater Script in the Khitan language. Figure 5.3 illustrates Tangut writing, both the phonetic and sinographic forms, from *Zhǎng Zhōng Zhū* 掌中珠. Most interestingly, Figure 6.2 is a comparison of the Tibetan script with the ᠠᠮᠤᠯᠠᠭᠤᠰᠤ system that the Mongols used in the Yuan dynasty. One hopes that these source materials will fascinate the reader and lead them to ever deeper studies.

Gathering these source materials in a succinct overview adds much to the value of the volume, not only for linguistic knowledge, but also toward understanding that complex segment of Chinese history at the beginning of the Second Millennium, at the collapse of the Song dynasty. Shen's study of these materials has already significantly advanced our knowledge in dating the origin of Early Mandarin, which was actually earlier than the received date by more than a century. This breakthrough, which he achieved through investigations of language contact, has been amply documented in his other writings and summarized in this volume.

All in all then, Professor Shen Zhongwei has produced a volume that at once presents a balanced account of what is currently known about the phonological history of Chinese and opens a window for future work in the area with an emphasis on language contact. Much fruitful fundamental research lies ahead! Very few languages in the world offer the kind of time depth and rich cultural history that is presented in this volume. It is a great pleasure for me to recommend the volume most highly, not only to readers in linguistics, but to all readers who are interested in a fascinating chapter of human history.

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## Preface

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As a first attempt, writing a book with this title brings with it unique and varied difficulties. It is well-known that Chinese is a language that has an unbroken written history of more than three thousand years. Firstly, unlike the alphabetical spelling system of European languages, the Chinese writing system is logographic, and so it does not reflect the sound of one's speech in any transparent way. The sounds of historical versions of Chinese thus must be reconstructed by using the knowledge of modern linguistics. Secondly, the quality of available source materials for different historical periods varies significantly. This inconsistency in quality directly relates to the reliability of various research results. It is necessary that before presenting and discussing the research done on Chinese historical phonology, I discuss in depth the quality of various source materials. I hope that a better understanding of the source materials available for different historical periods can help the reader to better understand the nature of Chinese historical phonological research work. To me this is a more objective way to judge reliability, which is often blurred by the more subjective interests and enthusiasm of researchers. Thirdly, Chinese history is long, but the importance of each period to reconstruction varies due to available materials. In this book, the phonological history is presented in a commonly accepted way, with major periods defined by their respective source materials, which show a significant difference from previous source materials. Lastly, it should also be pointed out that not only are the main source materials in Chinese, but the vast majority of studies and related terminologies are also in Chinese. This is probably one of the main reasons why Chinese scholarship is not well known to the scholars in the West, even to those who are involved in the study of phonological history. Many of the traditional terminologies represent how phonological studies were carried out throughout history when there were no available phonetically transparent tools such as an alphabet. It is quite natural that Chinese phonological research historically centered on phonological categories rather than phonetic values, which is almost a given in an alphabetical writing.

I began to work on this book in 2010 at the suggestion of Professor Alain Peyraube of the Centre de recherches linguistiques sur l'Asie orientale (CRLAO) when we met during the 18th Annual Conference of the International Association of Chinese Linguistics (IACL-18) held at Harvard University. The original plan was to jointly write a book titled *A History of the Chinese Language*. Due to a difference in the progress of our writings, we decided to write separate books instead. My part is the book you are currently reading, and Professor Peyraube's part will be another book. I appreciate Professor Peyraube's invitation, otherwise I would not have had the courage to take on such an ambitious project. During the course of writing the present book, I received help and encouragement from many colleagues and friends. Without them, finishing this book project would have been a lot more difficult. For their professional help I would like to express my special thanks to Professor William S-Y. Wang at Hong Kong Polytechnic University for his comments, Professors Sūn Bójūn and Má Xiǎofāng at the Chinese National Academy of Social Sciences for their assistance with the input of special fonts, and the anonymous reviewer for the detailed comments and suggestions, which provide an important perspective from potential readers. Finally, I would like to thank my assistant for this book project, Mr. Jack Rabinovitch, who provided valuable assistance in many aspects, including making tables and indexing, as well as reading and editing this multi-script linguistic manuscript. Of course, it is needless to say, all the views expressed and the errors that remain in this book are entirely the responsibility of the author.

This book is an attempt to introduce the scholarship of Chinese researchers to the West, where English is an academic lingua franca. In writing I have tried to keep in mind both the general phonologist and specialist of Chinese studies, as well as both beginners and experts. Due to the scale of Chinese history and the difficulty of these topics, many of the research results in this book are based on other scholars' works. However, inclusion does not necessarily mean I am totally in agreement with the viewpoints of the works presented in this book. This book should be viewed as a beginning rather than the end of the representation of the historical phonology of Chinese. As a Chinese proverb says, this book is just an effort of *pāo zhuān yǐn yù* 抛磚引玉 'casting a brick to attract jade.' I sincerely hope that more linguistic research results achieved by Chinese scholars will be introduced in English and will enrich the general discussion and understanding of historical linguistics.

Major Periods of Chinese History

Period	Years	Capital city
Shāng dynasty	1556–1046 BC	Yin (Anyang)
Western Zhōu dynasty	1045–771 BC	Fenghao (near Xi'an)
Eastern Zhōu dynasty	770–255 BC	Luoyi (Luoyang)
Spring and Autumn period	771–476 BC	
Warring States period	476–221 BC	
Qín dynasty	221–206 BC	Xianyang (near Xi'an)
Hàn dynasty	206 BC–AD 220	
Western Hàn dynasty	206 BC–AD 9	Chang'an
Eastern Hàn dynasty	AD 25–220	Luoyang
Three Kingdoms period	AD 220–280	
Jīn dynasty	AD 266–420	
Western Jīn dynasty	AD 266–316	Luoyang
Eastern Jīn dynasty	AD 317–420	Jiankang (Nanjing)
Northern and Southern dynasties	AD 420–589	
Suí dynasty	AD 581–618	Daxing (Xi'an)
		Luoyang
Táng dynasty	AD 618–907	Chang'an (Xi'an)
Five Dynasties and Ten Kingdoms period	AD 907–960/979	
Sòng dynasty	AD 960–1279	
Northern Sòng dynasty	AD 960–1127	Bianjing (Kaifeng)
Southern Sòng dynasty	AD 1127–1279	Lin'an (Hangzhou)
Liáo dynasty	AD 907–1125	Shangjing (Linhuang)
		Nanjing (Beijing) <sup>a</sup>
Jīn dynasty	AD 1115–1234	Zhongzhou (Beijing), Kaifeng
Western Xià dynasty	AD 1038–1227	Xingqing (Yinchuan)
Yuán dynasty	AD 1279–1368	Dadu (Beijing)
Míng dynasty	AD 1368–1644	Nanjing, Beijing
Qīng dynasty	AD 1644–1912	Beijing
Republic of China	AD 1912–1949	Nanjing
People's Republic of China	AD 1949–present	Beijing

<sup>a</sup>Shangjing (Linhuang) was ranked the first of five capitals of Liao. The other four capitals were Nanjing (today's Beijing), Dongjing (Liaoyang), Xijing (Datong), and Zhongjing (Dading, today's Ningcheng).

Locations of Ancient Capitals of China

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